



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 MUNICIPAL EMPLOYEES PENSION SYSTEM

A COMPONENT UNIT OF THE CITY OF HOUSTON, TEXAS

COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE YEARS ENDED JUNE 30, 2015 AND JUNE 30, 2014



PREPARED BY THE PENSION ADMINISTRATION STAFF RHONDA SMITH, EXECUTIVE DIRECTOR

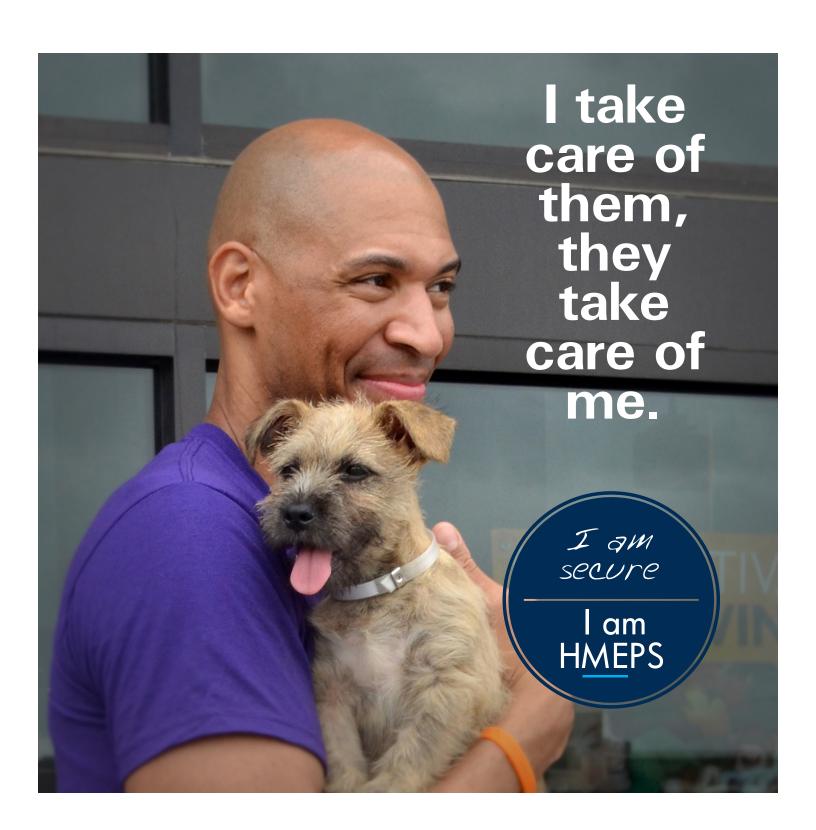
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PENSION SYSTEM
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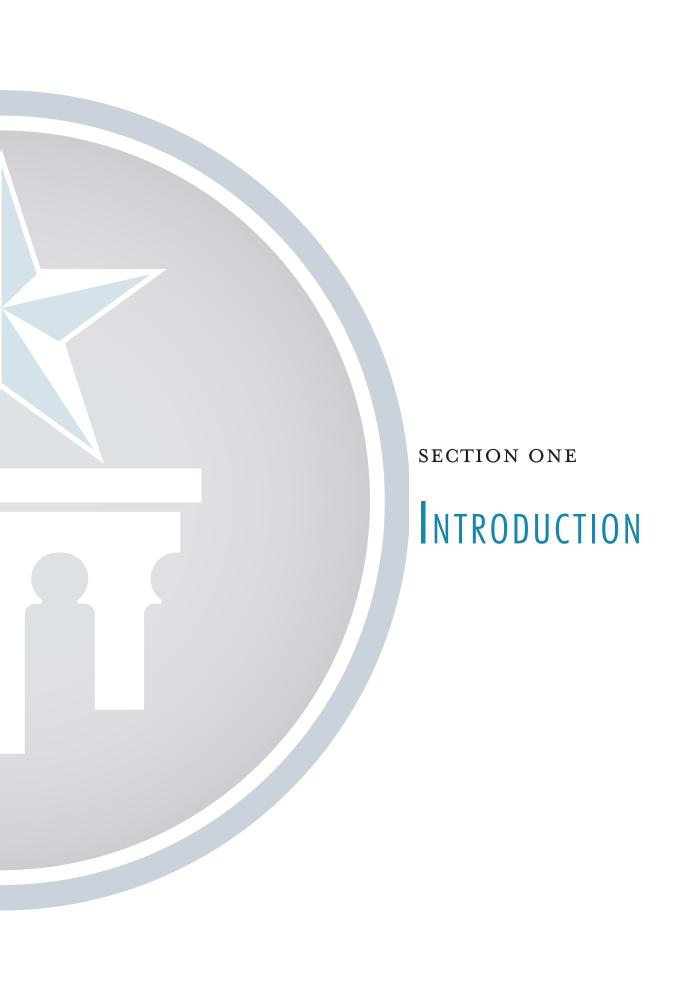


## TABLE OF CONTENTS

INTRODUCTION:	2 7 8 9	Letter of Transmittal Organizational Chart and List of Principal Officers GFOA Certificate of Achievement Professional Consultants and Investment Managers
FINANCIAL INFORMATION:	12 14 21 40	Independent Auditors' Report  Management's Discussion and Analysis  Financial Statements  21 Statements of Fiduciary Net Position  22 Statements of Changes in Fiduciary Net Position  23 Notes to Basic Financial Statements  Required Supplemental Information  40 Schedule of Changes in Net Pension Liability: Schedule 1 (Unaudited)  41 Schedule of Net Pension Liability: Schedule 2 (Unaudited)  41 Schedule of Employer Contributions: Schedule 3 (Unaudited)  42 Notes to Required Supplemental Information (Unaudited)  43 Schedule of Investment Returns: Schedule 4 (Unaudited)  44 Schedule of Funding Progress for OPEB: Schedule 5 (Unaudited)  Other Supplemental Information  45 Investment Summary: Schedule 6  46 Investment Services, Professional Services, and Administration Expenses: Schedule
INVESTMENT INFORMATION:	50 53 54 54 55 56 57	47 Summary of Costs of Investment and Professional Services: Schedule 8  Discussion of Investment Policies and Activities  Schedule of Asset Allocation  Schedule of Top Investments  Performance by Fiscal Year Last Ten Years  Comparison of Investment Returns – Years Ended June 30  Schedule of Fees and Commissions Paid  Fees for Investment Services
ACTUARIAL INFORMATION:	60 62 63 64 68 70 74 80 81 85 89	Actuary's Letter to the Board of Trustees Actuarial Certification Executive Summary Asset Information 64 Statement of Plan Net Assets 65 Reconciliation of Plan Net Assets 66 Development of Actuarial Value of Assets 67 Actuarial Present Value of Future Benefits Funding Information Contribution Information Participant Information Investment Return Information Summary of Actuarial Assumptions and Methods Summary of Plan Provisions Changes in Plan Provisions Since Prior Year
STATISTICAL INFORMATION:	92 93 94 95 95 96	Chart of Changes In Fiduciary Net Position Schedule of Changes in Fiduciary Net Position Schedule of Benefit Participants and Annuities By Type Ten Years Ended June 30, 2015 Chart of Benefit by Type for Years Ended June 30, 2014 Benefits Recipients By Type and Age - Year Ended June 30, 2014 Historical Active Participant Data

98 Average Benefit Payments By Years of Credited Service





#### LETTER OF TRANSMITTAL

**Board of Trustees** CHAIRMAN Sherry Mose VICE CHAIRMAN Roy W. Sanchez SECRETARY Lonnie Vara

David L. Long | Asha Patnaik | Lenard Polk | Barbara Chelette

Richard Badger | Edward J., Hamb II | Craig T. Mason | Adrian Patterson

**Executive Director** Rhonda Smith

November 19, 2015

Kelly Dowe, Director Finance Department 611 Walker, 10th Floor Houston, Texas 77002

Dear Mr. Dowe:

We are pleased to present the Comprehensive Annual Financial Report (CAFR) of the Houston Municipal Employees Pension System (the System), a Component Unit of the City of Houston, Texas (the City), for the fiscal years ended June 30, 2015 and June 30, 2014. The accuracy, fairness of presentation and completeness of this report are the responsibility of the Board of Trustees (the Board) of the System. To the best of our knowledge and belief, the enclosed data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of the operations of the System. The System's basic financial statements will be included in the annual financial report of the City.

#### Accounting System and Internal Controls

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 auditors have audited the financial statements and issued an unmodified opinion as of June 30, 2015 and 2014 (pages 12-13). The purpose of the audit is to give reasonable assurance to users of those financial statements, the Board, and participants of the System, that the financial statements present fairly, in all material respects, information regarding the System's net position held in trust for pension benefits and in conformity with accounting principles generally accepted in the United States of America.

A significant responsibility of the Board is to ensure that the System has in place an adequate system of internal controls. A system of internal controls is an entity's plan of organization and its coordinated methods and measures adopted to safeguard its assets, ensure the accuracy and reliability of the accounting system and promote adherence to management policies. These controls include strategic design of the entity's business systems, the appropriate segregation of duties and responsibilities, sound practices in the performance of those duties, retaining capable personnel, and the organizational structure itself. For each implemental control, the cost of the control should not exceed the benefits to be derived. An objective of these controls is to provide reasonable assurance that the financial statements are free of any material misstatement. We believe the System's internal controls are adequate and are working as designed.

#### Financial Information

The Management's Discussion and Analysis (MD&A) that immediately follows the Independent Auditors' Report provides condensed financial information and activities for the current and prior two fiscal years of the System. It provides a narrative introduction, overview, and analysis of the basic financial statements. The MD&A complements this letter of transmittal and should be read in conjunction with it.



#### Plan History and Profile

The System was created in 1943 under Chapter 358, Acts of the 48th Texas Legislature, Regular Session, Article 6243g, Vernon's Annotated Revised Texas Civil Statutes, and was reenacted and continued under HB1573, 77th Texas Legislature, as Article 6243h, Vernon's Annotated Revised Texas Civil Statutes, as amended (the Statute).

The System is a multiple-employer, defined benefit pension plan and includes a contributory group (Group A) and two noncontributory groups (Groups B and D). The System provides service retirement, disability retirement and death benefits for eligible participants which covers all municipal employees, except police officers and fire fighters (other than certain police officers in the System as authorized by the Statute) employed full time by the City, elected City officials, and the full-time employees of the System (collectively referred to as "participants"). The System's plan net assets are used to pay benefits for eligible participants of Group A, Group B and Group D. The System is administered by an elevenmember Board of Trustees. The Trustees include four elected trustees who are members of the System, two elected trustees who are retirees of the System, a trustee appointed by the elected trustees, the mayor's appointee, the controller's appointee, and two city council appointees.

#### Budget

The costs of administering the System, consisting of operating administrative expenses and capitalized items, are paid by the System from current earnings pursuant to an annual fiscal budget adopted by the Board.

#### Contributions - Meet and Confer Agreement

On July 1, 2011, the Amended and Restated Meet and Confer Agreement (Agreement) between the City and the System went into effect.

Under the Agreement, the City's annual contribution to the System is the greater of the previous fiscal year's rate plus 2 percent of covered (pensionable) payroll (Percentage Amount) or the previous fiscal year's contribution amount plus \$10 million (Dollar Amount). This provision will stay in place until the ARC Effective Date under the Agreement, at which time the actuarially determined contribution rate becomes the required contribution rate. For fiscal year 2015, the City's contribution was 25.36% of covered payroll

(\$146,431,684) based on the Percentage Amount, which exceeded the Dollar Amount of \$139,715,417.

#### Funding Status

The System's funding objective is to establish contributions which, when combined with present assets and future investment returns, will be sufficient to meet the financial obligations to present and future retirees and beneficiaries.

Annual actuarial valuations measure the progress toward these goals, as well as test the adequacy of the contribution rate. HMEPS receives contributions from two sources: employer contributions, which are determined as a percent of covered payroll (unless otherwise specified under the Amended and Restated Meet and Confer Agreement); and Group A member contributions. The System's actuary assumes that the System's investments will return 8.5 percent over the long-term. The differences between the assumed and actual investment return are phased in with a 5-year smoothing period that recognizes 1/5th of the aggregate deferred gains or losses each year, and offsets deferred gains and losses against each other, yielding an actuarial value of assets. The smoothing is intended to avoid extreme volatility in employer contribution rates due to short-term fluctuations in the investment markets. The funded ratio, the ratio of the actuarial value of assets (AVA) to the actuarial accrued liability (AAL), is a standard measure of a plan's funded status. In the absence of benefit improvements or reduced funding, a plan's funded ratio should increase over time, until it reaches 100%. As of July 1, 2014 HMEPS' AVA and AAL were \$2.49 billion and \$4.29 billion, respectively, resulting in a funded ratio of 58.1%. This is higher than the funded ratio as of July 1, 2013 which was 57.7%.

Based on actuarial estimates, the System's projected funded ratio as of July 1, 2014 would be 65.3%, or approximately 7 percentage points higher, if the City had contributed the annual required contribution rate in each of the preceding 10 years. The System's funded ratio increased from the prior year consistent with the goal of the funding policy. The Agreement provides a program for steadily improving the funded status of the System, as future City contributions will increase by at least \$10 million per year until the ARC Effective Date under the Agreement, at which time the actuarially determined contribution rate will be the required rate.

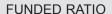


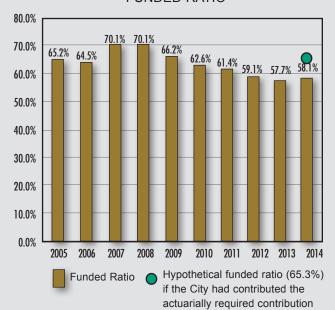
Like most large public pension plans, HMEPS was significantly impacted by the substantial decline in the investment markets during 2009. While the 2014 return of 16.4% substantially exceeded the 8.5% assumed rate of return, the 2015 return of 3.4% was lower than the assumed return rate and there are still some investment losses being deferred due to the smoothing methodology used in the valuation. The amount of deferred losses decreased from approximately \$186 million at the prior valuation to \$26 million in the July 1, 2014 valuation. In the absence of future investment gains, the contribution rate needed to amortize the unfunded liability will increase over the next few valuation cycles.

A historical perspective of the System's funding levels is presented in the graph below.

#### Market Environment

For the fiscal year ending June 30, 2015, capital markets experienced significant volatility. In the fourth quarter of 2014, the collapse in oil and gas prices impacted energy related investments and in June 2015, Greece considered a possible Euro exit. Domestic GDP was flat in the first two quarters of 2015 after strong growth in the last two quarters of 2014. However, consumer spending, which accounts for 70% of GDP, showed signs of renewed activity, and home prices continued with strong performance, ending the fiscal year up 4.9%. The pace of job growth slowed near the end of the fiscal year, but remained encouraging.





During fiscal year 2015, United States equity markets showed a small gain in each quarter. Health care and telecom were the best performing sectors, up 3.4% and 2.6% respectively. Growth stock indexes continued to lead value oriented indexes, and large capitalization outperformed smaller stocks; the Wilshire US Large Cap index was up 7.3% during the fiscal year as compared to 5.1% for the Wilshire US Small Cap Index. Overall, the US Equity markets, as represented by the Wilshire 5000 index, finished the fiscal year with gains of 7.1%, posting its sixth consecutive positive fiscal year since the credit crisis of 2008-2009.

International markets faced a number of challenges. Europe was the worst performing region, with concerns over the breakdown in negotiations between the European Central Bank and Greece, ending a brief rally in the stock market. Concerns over a slowdown in the Chinese economy grew, leading to a sharp decline in Chinese stocks near the end of the fiscal year. The MSCI All World ex-U.S. Index returned -5.3% for the fiscal year. The improvement in the Japanese economy was a lone bright spot; despite a pullback in June, the MSCI Pacific index ended the year up 2.7%.

Fixed income markets remained flat during the fiscal year. U.S. Treasuries continued to be an attractive safe haven for investors concerned about political instability elsewhere; but investors concerned about rate increases sold out of bonds. Overall, investment grade fixed income bonds as represented by the Barclays U.S. Aggregate bond index returned 1.9% for the fiscal year. High yield bonds as represented by the Merrill Lynch High Yield Master Trust II Index were down 0.6% for the fiscal year.

Among the alternative asset classes, Real Estate and Private Equity returned 10.9% and 10.4% respectively. Falling unemployment, down to 5.3% in June 2015, contributed to a strong real estate market. Increasing interest in M&A activity supported the valuations of small, private firms and allowed several funds to make favorable exits.

Overall, the System's investments returned 3.4%, compared to the MSCI All Country World Index return of 0.8%. Through the efforts of the Board, the System's investment portfolio is more broadly diversified than most public pension plans and



exhibits less volatility, particularly during extreme market environments. Over long periods of time (10 years), the System's investment performance ranks in the top 1% in the TUCS Master Trusts – Public peer group. During the 10-year period ending June 30, 2015, the System's annualized return was 8.3%, with the median comparable fund returning 6.8%.

## Major Current and Future Initiatives Experience Study

The System is conducting a review of its plan experience, as performed by the System's retained actuary, Gabriel, Roeder, Smith & Company (GRS). As part of the review, the Board examines the actuary's recommendations with respect to key assumptions, including the investment return assumption and mortality assumption. Adopted assumptions are effective for the July 1, 2015 actuarial valuation.

#### **Member Services**

The Benefits Division has continued its effort to provide information relating to pension benefits by holding seminars in the field and individual benefit meetings at HMEPS. In FY 2015, HMEPS:

- Responded to continued demand for the Outreach Program, which reaches hundreds of members with individual and group sessions provided by our benefits counselors and our Certified Financial Planner. This past year, these staff members conducted 306 individual counseling sessions and hosted 160 joint presentations for various City departments as well as new employee orientations for the benefit of 3,500 attendees. A growing number of participants requested financial counseling based on other participants' recommendations.
- Processed 2,013 benefit applications, including retirements, the Deferred Retirement Option Plan, survivor benefits, refunds, and lump-sum payments.
- Continued social media efforts to provide information relating to pension benefits to participants through Facebook and Twitter, two platforms that provide methods of communicating and interacting with participants.
- Participated in the Spring and Fall Financial Retirement Employees Educational Summits, annual events that help City of Houston employees better plan their financial futures.

 Conducted 300 one-on-one counseling sessions between the HMEPS financial counselor and participants in addition to numerous group presentations. The financial counselor also monitored pension related issues nationally and locally, a critical part of fulfilling HMEPS' obligation to keep participants fully informed.

#### **Operations**

In FY 2015, HMEPS engaged the actuarial firm of Segal Consulting to perform an independent full-scope actuarial audit of the July 1, 2013 actuarial valuation performed for HMEPS by GRS. The Operations Division provided data and assistance for the independent actuarial audit. The Segal Consulting audit report validated the findings of the July 1, 2013 actuarial valuation, and concluded that GRS followed and adhered to reasonable quality control procedures and that the valuations were performed in accordance with the actuarial standards promulgated by the Actuarial Standards Board (ASB).

Also in FY 2015, HMEPS moved towards less dependency on paper and manual processes by leveraging preexisting technology to streamline and digitize approval processes through automated workflows. The desktop environment was upgraded to increase security, reliability and user productivity. Business continuity processes continued to be put into place as the System assessed and monitored operational needs.

#### **Investments**

The System's strategic asset allocation policy is designed to manage risk by diversifying among public and private asset classes. The strategic asset allocation policy was reevaluated in 2013. Risk-return assumptions and correlations for asset classes were reexamined taking into account current and forecasted economic conditions. A new policy was adopted with the following changes: U.S. Equity and non-U.S Equity were combined into a single asset class, Global Equity, with the combined target weight being reduced to 35% from 40%. The target allocation to Fixed Income was reduced from 20% to 15%, while Real Estate was reduced from 12% to 10% and Private Equity from 18% to 17.5%. The two asset classes that received an increased target allocation were Absolute Return, which went from 5% to 10%, and Inflation Linked which increased from 5%



to 12.5%. The new asset allocation policy went into effect on July 1, 2013.

During fiscal year 2015, the System moved to bring its portfolio closer to the strategic asset allocation policy targets. With the help of the System's alternative investment consultant, Cliffwater LLC, the System invested in seven private equity partnerships, two private real estate partnerships and four ILAC partnerships. The System also hired a mid-cap US equity manager and moved from a passive to an active strategy in mid-cap US equity.

The System's investment portfolio closed its 2015 fiscal year at \$2.5 billion. The total investment return for the fiscal year was 3.4%. The System's investment performance was 11.0%, 10.8% and 8.3% for the past three-, five- and ten-year periods. The System underperformed the policy benchmark for fiscal year 2015, but outperformed for the longer ten-year period. Compared to similar investment portfolios (TUCS Public Fund Universe), the fund posts attractive investment returns over the long term. The fund ranks in the top 1% over the trailing ten-year period ending June 30, 2015. The best performing asset classes for fiscal year 2015 were Real Estate (+10.9%) and Private Equity (+10.4%).

In the upcoming fiscal year, the System will continue to work with consultants Wilshire Associates and Cliffwater LLC to identify attractive public and private market investments consistent with the strategic asset allocation.

#### **Board Governance**

During FY 2015, the Board's membership did not change. Appointed Board members serve three-year terms, with the current term scheduled to expire in July 2017 absent an earlier vacancy and appointment. Elected Board members serve staggered four-year terms, with elections for two active members and one retiree occurring every even-numbered year. The next Board election will occur in 2016.

#### **Certificate of Achievement**

The Government Finance Officers Association (GFOA) of the United States and Canada awarded a Certificate of Achievement for Excellence in Financial Reporting to the Houston Municipal Employees Pension System for its comprehensive annual financial report for the 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. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

#### Acknowledgement

This CAFR was prepared through the combined efforts of the System staff and was subject to the scrutiny of the Board. It is intended to provide information to its user that may be a basis for a general understanding of the System. This CAFR is being forwarded to the City of Houston, the Texas Pension Review Board, the GFOA, and other interested parties who may from time to time request it.

In Closing...

A core purpose of the System is to help provide for the financial security of its participants when they are eligible to receive benefits. Municipal public sector employees are vital to providing and maintaining important city services for Houston residents. Quality employees are attracted to and retained by the public sector in part by the security and benefits offered by a sound pension system. The System is proud to serve the dedicated municipal employees and retirees who have made tremendous contributions to Houston and its citizens.

Sincerely,

Sherry Mose

Chairman

Rhonda Smith **Executive Director** 

Rhonda Snith



Sherry Mose Chairman



Roy W. Sanchez Vice Chairman



Lonnie Vara Secretary



David L. Long Elected Trustee



Asha Patnaik Elected Trustee



Lenard Polk Elected Trustee



Barbara Chelette Appointed Trustee



Richard Badger Council Appointee



Edward J. Hamb II Controller Appointee



Adrian Patterson Council Appointee



Craig T. Mason Mayoral Appointee



Rhonda Smith
Executive Director

## **BOARD OF TRUSTEES**

Elected and Appointed Trustees
Sherry Mose, Chairman
Roy W. Sanchez, Vice Chairman
Lonnie Vara, Secretary
David L. Long
Asha Patnaik
Lenard Polk

Barbara Chelette, Appointed

City Appointed Trustees
Richard Badger
Edward J. Hamb II
Craig T. Mason
Adrian Patterson

Rhonda Smith, Executive Director

#### Administrative Organization

Audit Committee

Budget and Oversight
Committee

Disability Committee

External Affairs Committee

Investment Committee

Personnel and Procedures
Committee

Executive Director
General Counsel
Chief Investment Officer

Investment Managers' Services Market Research

Performance Measurement

Member Services

Benefit Administration Services

Communications

Financial Counseling

Member Services

Operations

Accounting

Financial Reporting

Records

Technology Support

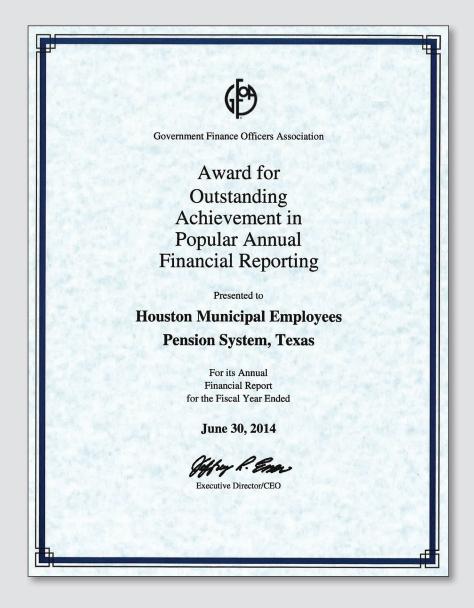
<sup>\*</sup> Information pertaining to investment-related professionals is located on Page 9.

#### GFOA CERTIFICATE OF ACHIEVEMENT

The Government Finance Officers Association (GFOA) of the United States and Canada awarded a "Certificate of Achievement for Excellence in Financial Reporting" to Houston Municipal Employees Pension System for its comprehensive annual financial report for the fiscal year ended June 30, 2014. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized comprehensive annual financial report, the contents of which conform to program standards. Such a CAFR must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. The Houston Municipal Employees Pension System has received a Certificate of Achievement for the last 21 consecutive years (fiscal years ended June 30, 1994 through 2014). We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to the GFOA for consideration.



#### Consultants (Fiscal Year 2015)

#### Actuary

Gabriel, Roeder, Smith & Company

#### **Auditor**

Doeren Mayhew, P.C. McConnell and Jones L.L.P.

#### **Board Medical Advisor**

Charles Schuhmacher, M.D.

#### Communication Services

LT Communications

#### **Technology Services**

Pension Benefits Information

#### Governmental Representation

Harris Law Firm, P.C. HillCo Partners, Inc. Locke Lord L.L.P.

#### **Investment Consultants**

Cliffwater, L.L.C. Wilshire Associates, Inc.

#### **Investment Performance Analysis**

Cliffwater, L.L.C. Wilshire Associates, Inc.

#### Legal Counsel

Baker Botts, L.L.P. Jackson Walker, L.L.P. Locke Lord L.L.P.

#### Master Custodian/Trustee

State Street Bank and Trust Co.

#### Investment Managers (Fiscal Year 2015)

#### Absolute Return

Anchorage Capital Group LLC Angelo, Gordon & Co. Brevan Howard US LLC Brigade Capital Management Claren Road Asset Management, LLC Davidson Kempner Capital Management, LLC **Graham Capital Management** Highland Capital Management Mason Capital Management MKP Capital Management, LLC Och-Ziff Capital Management Group Samlyn Capital, LLC Scopia Capital Soroban Capital Partners, LLC York Capital Management LP

#### Fixed Income

Alliance Bernstein Institutional Investments
BlackRock, Inc.
DDJ Capital Management, L.L.C.
GMO LLC
Loomis, Sayles & Co.
Pugh Capital Management
Smith Graham & Co.
Whippoorwill Associates, Inc.

#### Inflation-Linked

BlackRock, Inc. Brevan Howard US LLC EnCap Investments LP Enervest, Ltd Global Forest Partners, L.P. NGP Energy Capital Oaktree Capital Management Quantum Energy Partners Riverstone Holdings The Carlyle Group Tortoise Capital Advisors

#### Global Equity

Ariel Investments
Baring International
BlackRock, Inc.
DePrince, Race & Zollo, Inc.
EARNEST Partners, L.L.C.
INTECH Investment Management, L.L.C.
Neumeier Investment Counsel, L.L.C.
OakBrook Investments, L.L.C.
OFI Institutional Management
PanAgora Asset Management, Inc.
Profit Investment Management
State Street Global Advisors

#### **Private Equity**

Thomas White International

Adams Street Partners
Brera Capital Partners, L.L.C.
Brockway Moran & Partners, Inc.
Centerbridge Partners
CVE Kaufman Fellows Endowment
GTCR Management LC
Goldman, Sachs & Co.
HarbourVest Partners, L.L.C.
Hellman & Friedman, L.L.C.
ICV Partners III, L.P.
J.W. Childs Associates, L.P.
JMI Equity
Lexington Partners, Inc.
Matlin Patterson Global Advisors
New Enterprise Associates

New Mainstream Capital
Oaktree Capital Management
Onex Corporation
Pacven Walden Management Co., Ltd.
Pegasus Investors, L.P.
Pharos Capital Partners, L.L.C.
Platinum Equity Capital Partners
Siris Capital Group
Summit Partners
Sun Capital Partners, Inc.
The Carlyle Group
The Jordan Company, L.P.
Valor Equity Partners
Vista Equity Partners
Wayzata Investment Partners, LLC

#### Real Estate

**Aetos Capital** Angelo, Gordon & Co. **CB Richard Ellis Investors** Crow Holdings **DRC** Capital Fortress Investment Group, L.L.C. **GEM Realty Capital** Goldman, Sachs & Co. **Grove International Partners** IC Berkeley Partners Lone Star U.S. Acquisitions, L.L.C. Mesa West Capital Morgan Stanley Asset Management, Inc. Olympus Real Estate Corp. Orion Capital Managers, LLP KTR Capital Partners RREEF America L.L.C. State Street Global Advisors Starwood Capital Group Global LP







#### INDEPENDENT AUDITORS' REPORT

#### Independent Auditors' Report

To the Board of Trustees

Houston Municipal Employees Pension System:

#### REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying basic financial statements of the Houston Municipal Employees Pension System (the System), 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 basic financial statements.

#### MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS

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

#### **AUDITORS' RESPONSIBILITY**

Our responsibility is to express an opinion on these basic financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America (US GAAS). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic 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 basic 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 basic 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 basic financial statements referred to above present fairly, in all material respects, information regarding the financial status of the System as of June 30, 2015 and 2014, and the changes therein for years then ended, in accordance with US GAAP.





#### **OTHER MATTERS**

#### Required supplemental information

US GAAP requires that the Management's Discussion and Analysis (MD&A) and the schedules of Changes in Net Pension Liability, Net Pension Liability, Employer Contributions, Investment Returns, and Funding Progress for OPEB 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, which considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the Required Supplemental Information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

#### Additional supplemental information

McConnell & Jone UP

Our audit was conducted for the purpose of forming an opinion on the basic financial statements as a whole. The other supplemental information (schedules 6, 7 and 8) is presented for the purpose of additional analysis and is 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 our audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or the basic financial statements themselves, and other additional procedures in accordance with US GAAS. In our opinion, the other supplemental information is fairly stated in all material respects in relation to the basic financial statements as a whole.

Houston,Texas

September 24, 2015



### MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

The Board of Trustees (the Board) of the Houston Municipal Employees Pension System (the System) is pleased to provide this overview and analysis of the financial performance and activities of the System for the fiscal years (FY) ended June 30, 2015 and 2014. We encourage the readers to consider the information presented here in conjunction with the basic financial statements.

## OVERVIEW OF THE FINANCIAL STATEMENTS

The discussion and analysis is intended to serve as an introduction to the System's financial statements. The financial section consists of (1) System's Basic Financial Statements, (2) Notes to Basic Financial Statements, and (3) Supplemental Information. The year-end financials for FY 2015 and 2014, Notes to the Financial Statements, and the Required Supplemental Information in this report were prepared in conformity with generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB).

#### System's Basic Financial Statements

There are two basic financial statements presented herewith. The Statements of Fiduciary Net Position as of June 30, 2015 and 2014 indicate the net assets available to meet future payments and give a snapshot at a particular point in time. The Statements of Changes in Fiduciary Net Position for the fiscal years ended June 30, 2015 and 2014 provide a view of the fiscal year's additions to and deductions from the System.

#### Notes to Basic Financial Statements

The notes are an integral part of the basic financial statements and provide additional background information that is essential for a complete understanding of the data provided in the System's financial statements. The notes to the basic financial statements can be found on pages 23 to 39 of this report.

#### Supplemental Information

The required supplemental information consists of:

**Schedule 1 -** Schedule of Changes in Net Pension Liability: Information about the components of the net pension liability and related ratios includes the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percentage of covered-employee payroll. It should be noted though that actuarial information is based upon

assumptions about future events, and therefore, the figures presented are estimates.

**Schedule 2** - Schedule of Net Pension Liability: This schedule provides the historical liability of employers and non-employer contributing entities to plan members for benefits provided through a defined benefit pension plan.

**Schedule 3 -** Schedule of Employer Contributions: Details the actuarially determined contribution calculated for employers, actual contributions, covered-employee payroll, and actual contributions as a percentage of covered-employee payrolls.

Concerning Schedules 1, 2 and 3, it should be noted that for FY14 and forward, GASB 67, Financial Reporting for Pension Plans, changed the definition of Covered Payroll to now reflect Gross Salaries versus Pensionable Pay. This differs from the historical definition of Covered Payroll as Pensionable Pay, which is the pay basis used to calculate pension benefits.

**Schedule 4 -** Schedule of Investment Returns: A 10-year schedule presenting for each fiscal year the annual money-weighted rate of return on pension plan investments.

**Schedule 5 -** Schedule of Funding Progress for OPEB and Notes to Required Schedule: These are calculations made by the System's actuary and they provide actuarial information that contributes to the understanding of the changes in the actuarial funding of and the funded status of the Other Post-Employment Benefits (OPEB) over a number of years. It should be noted that actuarial information is based upon assumptions about future events, and therefore, the figures presented are estimates.

#### The other supplemental information consists of:

**Schedule 6 -** Investment Summary: This lists the System's investments by type presented both at cost and fair market value.

**Schedule 7 -** Investment Services, Professional Services, and Administration Expenses: This provides more information for purposes of a more detailed analysis.

**Schedule 8 -** Summary of Costs of Investment and Professional Services: This provides more information for purposes of a more detailed analysis.



#### COMPARATIVE FINANCIAL STATEMENTS

Below is a condensed and comparative summary of major classes of Fiduciary Net Position at fair value. (In thousands of dollars)

,		June 30, 2015		June 30, 2014		June 30, 2013
<u>Assets</u>	_					
Cash and equivalents	\$	622	\$	401	\$	6,168
Investments		2,467,340		2,464,628		2,202,676
Receivables on asset sales		19,724		12,066		12,395
Other receivables		5,156		6,808		5,697
Collateral on securities lending		101,533		139,504		161,317
Furniture, fixtures and equipment, net	_	395		444		247
Total assets	\$ =	2,594,770	\$	2,623,851	\$	2,388,500
<u>Liabilities</u>						
Payable on asset purchases	\$	30,552	\$	14,147	\$	25,458
Accrued liabilities		6,141		5,761		5,109
Collateral on securities lending	_	101,533	_	139,504	_	161,317
Total liabilities		138,226		159,412		191,884
Net Position Restricted for Pensions	\$ =	\$2,456,544	\$	2,464,439	\$ =	2,196,616

Below is a comparative summary of Statements of Changes in Fiduciary Net Position available for pension benefits. (In thousands of dollars)

		Fiscal Year 2015	Fiscal Year 2014		Fiscal Year 2013
<u>Additions</u>					
Contributions	\$	161,205	\$ 144,854	\$	128,900
Investment and interest income, net		73,854	351,793		263,891
Other income	_	557	729	_	1,246
Total additions		235,616	497,376		394,037
<u>Deductions</u>					
Benefits paid		234,955	221,925		213,178
Contribution refunds		1,549	1,213		1,266
Administration expenses and professional fees	_	7,007	6,415	_	7,212
Total deductions		243,511	229,553		221,656
Increase (decrease) in net position restricted for pension	ıs	(7,895)	267,823		172,381
Restricted net position, beginning of year		2,464,439	2,196,616		2,024,235
Restricted net position, end of year	\$	2,456,544	\$ 2,464,439	\$	2,196,616



#### FINANCIAL HIGHLIGHTS (IN THOUSANDS OF DOLLARS, UNLESS OTHERWISE NOTED)

#### CONTRIBUTIONS

The System received \$16,198 and \$16,580 during fiscal years 2015 and 2014 in employee contributions from approximately 5,873 and 6,364 Group A active participants respectively, and \$17,042 in employee contribution from 6,830 active Group A participants during fiscal year 2013. Employee Contributions from Group A members represent 5% of the employee's qualifying base salary. Because Group A is the only Group that requires employee contributions and since the Group was closed to new participants as of 1/1/2008, total employee contributions have been in a declining trend as a result of employee attrition. For fiscal year 2015, employee contributions decreased by \$382 or 2.3% compared to fiscal year 2014 and decreased by \$462 or 2.7% in fiscal year 2014 compared to fiscal year 2013. The System received cash contributions from the City of Houston (the City) of \$145,007 and \$128,274 (which are net of contributions to the replacement benefit plan of \$1,425 and \$1,441) for fiscal years 2015 and 2014, respectively. This represents actual employer contributions of 25.36% of covered payroll (pensionable pay) in fiscal year 2015 and 23.36% of covered payroll (pensionable pay) for fiscal year 2014. Fiscal year 2014 contributions were slightly higher than forecasted by approximately \$700 thousand due to a larger payroll base, while contributions in fiscal year 2013 resulted in \$2.7 million less than forecasted. The employer contribution amount for fiscal year 2012 was fixed and therefore unaffected by any changes to the City's actual payroll. The System assumes a 3% growth rate in its active member payroll.

#### **BENEFIT PAYMENTS**

Benefit payments increased to \$234,955 during fiscal year 2015, compared to \$221,925 during fiscal year 2014, and compared to \$213,178 during fiscal year 2013. There were 10,025 participants that received benefits for fiscal year 2015 compared to 9,722 participants in 2014, versus 9,427 participants in fiscal year 2013. The increase in benefits paid represents a 5.9% increase in fiscal year 2015 over fiscal year 2014, and a 4.1% increase in fiscal year 2014 over fiscal year 2013. Refunds experienced a 25% increase to \$1.5 million in fiscal year 2015 from

\$1.2 million in fiscal year 2014, after an 8% decrease from \$1.3 million in payouts in fiscal year 2013.

Monthly recurring retirement pension benefits amounted to \$213,112 (a 5.6% increase from fiscal year 2014), accounting for 91% of the total benefit payments for fiscal year 2015 and \$201,819 for fiscal year 2014 representing 91% of monthly retirement benefits, or a 5.5% increase over fiscal year 2013.

Distributions to Deferred Retirement Option Plan (DROP) participants amounted to \$21,641, an increase of \$1,711 (8.5%) for the year compared to \$19,930 during fiscal year 2014, which was under (8.6%) as compared to the fiscal year 2013 total of \$21,821. DROP distributions represented 9.2% of the total benefit payments during fiscal year 2015, 9% of the total fiscal year 2014 and 10.2% of the total payments made in fiscal year 2013. The breakdown in payments includes fiscal year 2015 lump sum payments of \$19,778, along with an annual amount of \$1,863 paid out over monthly distributions versus fiscal years 2014 and 2013 which had payments of \$17,822 and \$2,108 and \$19,597 and \$2,224, for lump sums and monthly distributions respectively.

Total benefit payments exceeded total employee plus employer contributions by \$73,750, \$77,071, and \$84,278 during fiscal years 2015, 2014, and 2013, respectively.

#### ACCOUNTING AND ADMINISTRATION

Costs of administering the benefit programs of the System, including professional fees, increased to \$7,007 for fiscal year 2015 from \$6,415 for fiscal year 2014, up 9.2%. This increase is mainly due to increases for personnel/OPEB and healthcare costs of \$288 and \$16 respectively, along with increases in legal/professional services of \$141 related to costs for litigation in FY15.

The System capitalizes expenditures for furniture, fixtures and equipment in accordance with Governmental Accounting Standards Board Statement No. 34, Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments, as amended. Furniture, fixtures and equipment, net of accumulated depreciation, as



of fiscal year ends 2015, 2014, and 2013 are \$395, \$444 and \$247, respectively.

## ACTUARIAL VALUATIONS AND FUNDING

The funded ratio is a standard measure of a plan's funded status representing the ratio of the actuarial value of assets to the actuarial accrued liability. The funded ratio as of the last actuarial report, July 1, 2014, is 58.1%, which is higher than the 57.7% funded ratio as of July 1, 2013. As of July 1, 2014, the Systems' unfunded actuarial accrued liability was \$1.798 billion. In determining contribution rates an actuarial value of assets is used rather than a market value of assets, with the actuarial value of assets (AVA) based on smoothed returns. This "smoothing method" is intended to help reduce the volatility of the

contribution rates from year to year. The method used to compute the AVA takes the difference between the actual market value of assets and the expected actuarial value of assets (based on the assumed 8.5% investment return rate), and establishes a base each year which is equal to this difference less any unrecognized bases from prior years. If the current year's base is of opposite sign from the prior years' bases then it is offset dollar for dollar against the prior years' bases (oldest bases first) until either the prior years' bases or the current year's base is reduced to zero. Any remaining bases are then recognized over the remaining period for the base (5 less the number of years between the base year and the valuation year) in equal dollar amounts.

#### **INVESTMENTS**

The net investment and interest income of the System was \$73,950 during fiscal year 2015, a decrease of \$277,843 from fiscal 2014's gain of \$351,793. The investment and interest income of the System consists of:

		Fiscal Year 2015	Fiscal Year 2014	Dollar Change		Fiscal Year 2014		Fiscal Year 2013		Dollar Change
Interest	\$	17,417	\$ 24,080	\$ (6,663)	\$	24,080	\$	20,253	\$	3,827
Dividends		19,323	19,523	(200)		19,523		21,245		(1,722)
Earnings from limited partnerships and real estate trusts		8,679	4,996	3,683		4,996		8,400		(3,404)
Realized gain on investments		102,639	202,834	(100,195)		202,834		108,074		94,760
Change in unrealized gain (loss) on investments		(66,208)	108,354	(174,562)		108,354		112,976		(4,622)
Net proceeds from lending securities		484	590	(106)		590		755		(165)
Less cost of investment services		(8,384)	(8,584)	200		(8,584)		(7,812)		(772)
Net investment and interest income (loss)	\$_	73,950	\$ 351,793	\$ (277,843)	\$_	351,793	\$_	263,891	\$_	87,902

- The System's gross rate of return on investments during FY 2015 of 3.4% compared with the FY 2014 rate
  of return of 16.4%. The decrease in the rate of return was due primarily to market performance in fiscal
  year 2015.
- Fiscal year 2015 saw global equity with a return near zero due to international turmoil and the decline in energy prices. Domestic equities (Wilshire 5000) ended the year with a gain of 7.1%, but International equities (MSCI All Country ex-US) recorded a loss of 5.3%.
- High yield bonds as represented by the Merrill Lynch High Yield II Total Return index declined 0.6%. High
  quality investment grade bonds were up 1.9% as the new Federal Reserve chairman continued the prior
  administration's policies. Real Estate also performed well, as the NCREIF Property Index returned 13% in
  fiscal year 2015.



#### MANAGEMENT'S DISCUSSION AND ANALYSIS

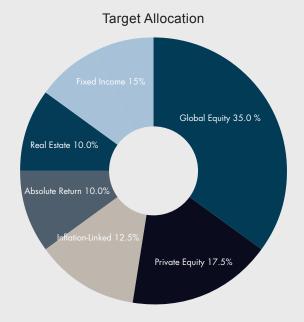
- At June 30, 2015, the Plan's total pension liability was \$4.53 billion. The Plan's fiduciary net position was \$2.46 billion leaving a net pension liability of \$2.07 billion. The Plan's fiduciary net position as a percentage of total pension liability was 54.2%.
- The Fiduciary Net Position of \$2.456 billion decreased by \$ 7.9 million or 0.3% during fiscal year 2015 due to benefit payments which exceeded investment income for the fiscal year. This compares to an increase of \$267,823 or 12.2% in the Fiduciary Net Position during fiscal year 2014.

#### **INVESTMENT REVIEW**

The System's investment portfolio closed its 2015 fiscal year at \$2.456 billion, down from \$2.464 billion at the beginning of the year. The total gross investment return for the fiscal year was 3.4%. The System's performance, including the total fund, each asset class and their corresponding benchmark(s), for fiscal year 2015 and the trailing three, five, and tenyear periods are listed on the next page in Table 1.

The System's gross investment performance was 3.4%, 10.7% and 10.9% for the past one-, three- and five-year periods. The System outperformed its policy benchmark for the ten-year period. Relative to its peer group (Wilshire TUCS Universe) the fund continues to post attractive investment returns over the long term, remaining in the top decile over the trailing ten-year period.

The best performing asset classes for fiscal year 2015 were Real Estate, up 10.9% and Private Equity, up 10.4%. For fiscal year 2014, Inflation Linked, up 22.3% and Global Equity, 21.9%, were the top two performing asset classes. The benefits of a welldiversified asset allocation are evidenced by the System's' ability to perform very competitively over multi-year periods where different asset classes drive overall returns. For the past three-year and five-year periods, Domestic Equity was the System's best performing asset class, providing a 17.2% and 17.4% return respectively. The System's allocation to Private Equity helped enable the System to perform well over the long term returning 8.3% while a more traditional asset allocation (60%/40% mix of S&P 500 Index/ Barclays Aggregate Bond Index) would have returned 7.2% over the ten-year period.



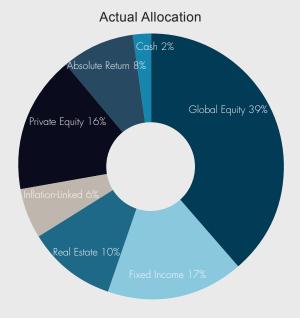


TABLE 1

Periods Ended June 30, 2015

	Asset	s	Performance			
	(\$ Millions)	(%)	1 -year	3 -years	5 -years	10 -years
Global Equity	949.8	38.6	2.2%	%	%	%
Net of Fee			1.9%	%	%	%
Global Equity Policy			2.3%	%	%	%
MSCI All Country World IMI (Net)			0.8%	%	%	%
MSCI ACWI Min Volatility (Net)			6.6%	%	%	%
Domestic Equity	365.2	14.8	6.9%	17.2%	17.4%	7.7%
Net of Fee			6.4%	16.7%	16.9%	7.2%
Wilshire 5000			7.1%	17.5%	17.3%	8.2%
International Equity	350.1	14.2	-4.8%	10.2%	8.4%	5.8%
Net of Fee			-5.3%	9.7%	7.9%	5.3%
MSCI ACWI ex-US (Net)			-5.3%	9.4%	7.8%	5.5%
Fixed Income	415.3	16.9	1.1%	5.4%	6.4%	6.2%
Net of Fee			0.7%	5.0%	6.0%	5.9%
Barclays Aggregate			1.9%	1.8%	3.4%	4.4%
ML HY Master II			-0.6%	6.8%	8.4%	7.8%
Real Estate <sup>1</sup>	266.9	10.8	10.9%	10.8%	9.4%	5.1%
Net of Fee			10.9%	10.8%	9.4%	5.0%
NCREIF Property			13.0%	11.6%	12.7%	8.2%
Private Equity <sup>2</sup>	420.9	17.1	10.4%	10.8%	13.1%	11.4%
Net of Fee			10.3%	10.8%	13.0%	11.3%
S&P 500 + 3%			10.4%	20.3%	20.3%	10.9%
Absolute Return <sup>3</sup>	210.9	8.6	2.7%	6.9%	6.6%	%
Net of Fee			2.7%	6.9%	6.6%	%
Custom Benchmark <sup>4</sup>			4.3%	4.3%	4.5%	%
Inflation Linked ⁵	159.2	6.5	-9.1%	8.4%	6.8%	%
Net of Fee			-9.5%	8.1%	6.6%	%
Custom Benchmark <sup>6</sup>			4.1%	5.3%	6.0%	%
Total Fund	2,462.0	100.0	3.4%	11.0%	10.8%	8.3%
Net of Fee			3.0%	10.6%	10.4%	8.0%
Policy Index			5.0%	11.4%	11.9%	7.7%
Actuarial Rate			8.5%	8.5%	8.5%	8.5%

<sup>1.</sup> Prior to October 1, 2008 the Real Estate Composite included the returns of real asset, public and private real estate, and energy funds. Starting October 1, 2008 the Real Estate Composite contains only the public and private real estate funds.



<sup>2.</sup> Prior to October 1, 2008 the Private Equity Composite included the returns of private equity and absolute return funds. Starting October 1, 2008, the Private Equity Composite contains only the private equity funds.

<sup>3.</sup> The Absolute Return composite was created on Oct 1, 2008. The underlying funds' historical performance is included in the Private Equity Composite return.

<sup>4.</sup> Absolute Return Custom Benchmark: 2Q11 - Present: Libor 3-Month Yield + 4% annually, Prior to 2Q11: Libor 3-Month Yield + 5% annually.

<sup>5.</sup> The Inflation Linked composite was created on Oct 1, 2008, and the underlying funds' historical performance is included in the Real Estate Composite.

<sup>6.</sup> The Inflation-Linked Assets Custom Benchmark: 2Q11 - Present: CPI + 4% annually, prior to 2Q11 CPI + 5% annually.

The System continuously monitors the actual allocation with the goal of moving it toward the target. The Target Allocation and Actual Asset Allocation charts on page 18 reflect the System's target and actual asset allocation mix as of June 30, 2015.

#### SECURITIES LENDING PROGRAM

The System's securities lending program obtains additional income by lending securities to broker-dealers and banks. During the years ended June 30, 2015 and 2014, the System's custodian lent the System's securities and received cash, securities issued or guaranteed by the United States government, and irrevocable bank letters of credit as collateral. The Board and the borrowers maintained the right to terminate all securities lending transactions on demand. The cash collateral received on each loan was invested in a collective investment pool.

#### LIMITED PARTNERSHIP COMMITMENT

The System's investments in limited partnerships are included in the first table appearing in Note 9 on page 32. In connection with those investments, the System has remaining commitments as of June 30, 2015, 2014, and 2013 of approximately \$680 million, \$603 million, and \$388 million, respectively, pursuant to terms of the respective limited partnerships.

#### OTHER COMMENTS

The System's FY2015 financial statements were prepared in conformity with GASB Statement No. 67, generally accepted accounting principles established by the Governmental Accounting Standards Board, which addresses required changes in the presentation of the financial statements, the notes to the financial statements, and required supplemental information. Please refer to Notes 2 and 4 on pages 26 and 28 of this report for more details. The two Basic Financial Statements within this report (on pages 21-22) have new report names. They are now referred to as the Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position. Other changes to the financial statements include comprehensive footnote disclosures regarding the net pension liability, the liability associated with changes in the discount rate, and increased investment activity disclosures.

GASB Statement No. 68 requires governments providing defined benefit pensions to recognize their long-term obligation for pension benefits as a liability, and to more comprehensively and comparably measure the annual costs of pension benefits. Therefore, for the first time beginning on June 30, 2015, the System's Net Pension Liability will be reported as a liability on the City of Houston's balance sheet, recording the fiscal year 2014 audited liability. As of June 30, 2015, this liability is \$2.1 billion. See Note 2 on page 26 for additional details.

Actuarial Valuation - In compliance with the System's policy, an actuarial valuation along with an experience study will be performed by the System's actuary. The experience study will compare plan assumptions against plan experience over the last five plan valuations.

## CONTACTING THE SYSTEM'S FINANCIAL MANAGEMENT

This financial report is designed to provide our participants, business partners, and taxpayers and other community stakeholders with a general overview of the System's financial activities. Questions about this report should be directed to the Executive Director of the Houston Municipal Employees Pension System at 1201 Louisiana, Suite 900, Houston, Texas 77002.





### STATEMENTS OF FIDUCIARY NET POSITION | JUNE 30, 2015 AND 2014

	_	2015	_	2014
<u>Assets</u>				
Cash and cash equivalents	\$	621,966	\$	401,146
<u>Receivables</u>				
Receivables on asset sales		19,723,815		12,065,456
Receivables on foreign exchanges		227,905		377,890
Other receivables	_	4,928,263	_	6,430,368
Total receivables	_	24,879,983		18,873,714
Investments, at fair value				
Short term investment funds		78,699,020		48,569,270
Government securities		85,622,635		83,699,960
Corporate bonds		225,280,044		223,848,665
Capital stocks		768,810,623		866,082,050
Commingled funds		393,973,477		382,671,667
Real assets		239,169,712		207,977,789
Alternative investments		675,784,017		651,778,839
Total investments	-	2,467,339,528		2,464,628,240
Collateral on securities lending arrangements, at fair value		101,533,453		139,504,403
Furniture, fixtures and equipment, net	_	395,173		443,907
Total assets	-	2,594,770,103		2,623,851,410
<u>Liabilities</u>				
Payables on asset purchases		30,552,327		14,146,944
Payables on foreign exchanges		229,106		378,433
Accrued liabilities		3,559,320		3,458,797
Accrued other post retirement benefits		2,352,338		1,923,956
Collateral on securities lending arrangements, at fair value	-	101,533,453		139,504,403
Total liabilities	-	138,226,544		159,412,533
Fiduciary net position, restricted for pensions	\$ _	2,456,543,559	\$	2,464,438,877

See accompanying notes to basic financial statements.



## STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION | JUNE 30, 2015 AND 2014 (IN WHOLE DOLLARS)

<u>Additions</u>		2015		2014
Contributions:	_		_	
City of Houston	\$	145,007,059	\$	128,274,419
Participants		16,198,216		16,579,600
Total contributions		161,205,275	_	144,854,019
Other income	_	556,975	_	729,912
Investment Income				
Interest on bonds and deposits		17,417,150		24,079,941
Dividends		19,322,863		19,523,036
Earnings from limited partnerships and real estate		8,679,065		4,995,978
Net appreciation on investments		36,334,869		311,189,076
Total investment income		81,753,947	_	359,788,031
Proceeds from lending securities		706,852	_	829,421
Less costs of securities lending		(223,280)		(239,652)
Net proceeds from lending securities		483,572		589,769
Less costs of investment services		(8,383,636)		(8,584,854)
Total investment income		73,853,883		351,792,946
Total additions to net position	_	235,616,133	_	497,376,877
<u>Deductions</u>				
Benefits paid to participants		234,954,625		221,925,083
Contribution refunds to participants		1,549,404		1,213,474
Professional services		822,310		596,931
Administration expenses		6,185,112	_	5,817,737
Total deductions		243,511,451	_	229,553,225
Net increase/(decrease)		(7,895,318)		267,823,652
Fiduciary net position, restricted for pensions				
Beginning of year		2,464,438,877		2,196,615,225
End of year	\$	2,456,543,559	\$	2,464,438,877

See accompanying notes to basic financial statements.



#### NOTE 1 - DESCRIPTION OF PLAN

The Houston Municipal Employees Pension System (the System) was created under Chapter 358, Acts of the 48th Texas Legislature, Regular Session, 1943 (Article 6243g, Vernon's Texas Civil Statutes) and reenacted and continued under HB1573, 77th Texas Legislature, Article 6243h, Vernon's Texas Civil Statutes (the Pension Statute), as amended. The System is a cost-sharing multiple-employer defined benefit pension plan with two participating employers covering all municipal employees, except police officers and firefighters (other than certain police officers in the System as authorized by the Pension Statute), employed full time by the City of Houston, Texas (the City), elected City Officials, and the full time employees of the System (collectively referred to as participants). The System includes a contributory group (Group A) and two noncontributory groups (Group B and Group D) and provides for service, disability and death benefits for eligible participants. System plan net assets are used to pay benefits for eligible participants of Group A, Group B and Group D. The System is a governmental plan and therefore is not subject to the Employee Retirement Income Security Act of 1974. The System is governed by a Board of Trustees (the Board) consisting of eleven trustees - four elected by the active plan members, two elected by the retired plan members, one appointed by the elected trustees, one appointed by the mayor of the city, one appointed by the controller of the city, and two appointed by the governing body of the city. The appointed trustees must have expertise in at least one of the following areas: accounting, finance, pension, investment or actuarial. The System can only be terminated or amended by an act of the Legislature of the State of Texas or by an agreement between the City and the Board pursuant to the Pension Statute.

#### **Participation**

Participants newly hired on or after January 1, 2008 automatically become members of Group D, a noncontributory group.

Participants hired before September 1, 1981 participate in Group A, unless they elected before December 1, 1981 or after May 1, 1996 to transfer to Group B. Participants hired or rehired after September 1, 1981 but before September 1, 1999, may make a one-time irrevocable election to participate in Group

A; otherwise, they participate in Group B. Participants hired or rehired on or after September 1, 1999 and before January 1, 2008 participate in Group A; except that Executive Officials of the City and the Executive Director of the System (Executive Officials) participated in Group C. Effective January 1, 2005, the Executive Officials of the City and the Executive Director of the System automatically became Group A members pursuant to the First Amendment to Meet and Confer Agreement, dated December 21, 2004.

As of July 1, 2014, the most recent actuarial report shows the following System's participants:

	2014	2013
Retirees and beneficiaries currently receiving benefits	9,685	9,427
Former employees - vested but not yet receiving benefits	3,313	3,298
Former employees - non-vested	2,219	2,257
Vested active participants	8,818	8,627
Non-vested active participants	3,131	3,154
Total participants	27,166	26,763

Participants may no longer elect to convert previous Group B service to Group A after December 31, 2005.

#### Retirement Eligibility

Effective January 1, 2008, new employees participate in a noncontributory group (Group D) with:

- No employee contributions,
- Normal retirement eligibility of age 62 and 5 years of credited service,
- Benefit accrual of 1.8% for the first 25 years of credited service, and 1% thereafter,
- Option to elect an actuarially equivalent benefit with a survivor benefit,
- Option to elect an early reduced retirement benefit, and
- Option to roll over funds from a section 457(b) plan to purchase an increased benefit.

A former employee who is rehired as an employee by the City or by the System on or after January 1, 2008 is a member of the group in which the employee participated at the time of the employee's immediately preceding separation from service.

There is no change in benefits for current members and retirees. For those participants in Group A and



#### NOTES TO BASIC FINANCIAL STATEMENTS | JUNE 30, 2015 AND 2014

Group B employed effective January 1, 2005, a participant who terminates employment with the City or the System is eligible for a normal retirement pension beginning on the member's effective retirement date after the date the member completes at least five years of credited service and attains:

- i. 62 years of age, or
- ii. a combination of years of age and years of credited service, including parts of years, the sum of which equals the number 75, provided the participant is at least 50 years of age, or
- iii. any combination of age and credited service that when added together equal 70 or more, provided that the member, prior to January 1, 2005 completed at least 5 years of credited service and attained a combination of age and credited service that when added together equal 68 or more.

#### Pension Benefits

Pension benefits are based on a participant's average monthly salary and years of credited service, as defined in the Pension Statute. The maximum pension benefit is 90% of the participant's average monthly salary.

Pension benefits are increased annually by a Cost of Living Adjustment (COLA) equal to 3% of the original benefit amount, not compounded, for all persons receiving a pension or survivor benefit as of January 1 of the year in which the increase is made, provided the person receiving the pension was an employee on or before December 31, 2004, and the person receiving the survivor benefit is an eligible survivor of a person who was an employee on or before December 31, 2004.

Effective January 1, 2005, pension and survivor benefits for all retirees and eligible survivors of Group A and Group B are increased annually by 2%, not compounded, for all persons receiving a pension or survivor benefit as of January 1 of the year in which the increase is made, provided the person receiving the pension was hired or rehired on or after January 1, 2005. Retirees who received a 3% COLA and who are rehired on or after January 1, 2005 will also receive a 3% COLA on the subsequent benefit. Individuals participating in Group D do not have a COLA provision.

A participant who is eligible to receive a deferred benefit may elect to receive his or her pension benefit in an early lump sum distribution if the actuarial present value of the participant's benefit is less than \$20,000 on the date of termination. Early lump-sum distributions are subject to approval by the Board.

#### Disability Benefits

Service-connected disability benefits for covered participants are based on the participant's normal accrued benefit, but are not less than 20% of the participant's final monthly salary. There is no minimum credited service requirement to qualify for service-connected disability benefits.

Participants with at least five years of credited service who become disabled may qualify for a nonservice connected disability allowance equal to the participant's normal accrued pension benefit.

#### Survivor Benefits

Survivor benefits are provided for a member's surviving spouse and/or dependent children. A deceased member must have had at least 5 years of credited service at the time of his or her death to qualify for survivor benefits unless death was caused by a service-connected incident as defined by the Pension Statute. For a Group D member, death benefits for a death that occurs while actively employed are determined in the same manner as for Group A and Group B. For death that occurs after the Group D member's termination of employment, the payment of a death benefit depends on whether the participant elected an optional annuity.

A Group D participant with at least 5 years of credited service has the option to elect an actuarially equivalent amount under one of three joint annuity options in lieu of a normal benefit with no survivor benefit. If a Group D participant with at least 5 years of credited service elects a normal benefit, no death or survivor benefit is payable. If a Group D participant with at least 5 years of credited service makes no optional annuity election and dies prior to retirement, the surviving spouse is eligible to receive an amount equal to the amount that would have been paid if the participant had elected a 50% joint and survivor annuity and named the spouse as the designated beneficiary.

Effective July 1, 2011, eligible unmarried Group A and Group B members who terminate service on or after June 30, 2011 have the option to select a joint



and survivor (J&S) annuity option in lieu of a normal benefit.

The optional annuity election, which was already available to vested Group D members and vested Group B members who separated from service prior to September 1997, allows eligible participants to elect to take a reduced pension and provide an annuity (50% J&S, 100% J&S, or 10-year Guarantee) to a designated annuitant. The optional annuity provision does not affect Group A and Group B members who are married at the time of their termination from employment or do not otherwise fall into the categories of eligible participants.

In order to qualify for survivor benefits other than under an annuity option, a surviving spouse must have been married to the deceased participant at the time the participant's employment with the City or System was terminated and at the time of the participant's death. To qualify for benefits, a child must be the natural, or legally adopted, dependent child of the deceased participant at the time of the participant's death and (a) must be under age 21 and never have been married, or (b) have been totally and permanently disabled before age 18 and at the time of the participant's death and never have been married. Dependent benefits are payable to the legal guardian of the dependent(s) unless the dependent is at least 18 years of age.

#### Deferred Retirement Option Plan (DROP)

A Group A or Group B participant who is eligible to retire, except that he or she has not retired and remains a full-time employee of the City, or the System, or has been separated from service for not more than thirty calendar days, may elect to participate in the Deferred Retirement Option Plan (DROP). The DROP provides that a monthly amount (monthly DROP credit) will be credited to a notional account (DROP Account). Interest is credited to the DROP Account at a rate approved by the Board, compounded at an interval approved by the Board. Beginning January 1, 2005 and continuing for the duration of the Amended and Restated Meet and Confer Agreement, the DROP interest rate is equal to half the return on the System's investments for the prior fiscal year, with a minimum rate of 2.5% and a maximum rate of 7.5% compounding currently at daily intervals. The first day of DROP participation is the DROP Entry Date. The day a participant's fully executed DROP election is accepted by the System is the DROP Election Date. Normal pension benefits cease to accrue on the DROP Entry Date, except that all Cost-of-Living-Adjustments (COLA) noted previously apply to DROP participants who are active employees under the Pension Statute.

Effective January 1, 2005, a participant's election to participate in DROP cannot establish a DROP entry date that occurs prior to the date of the System's receipt of the member's request to participate in DROP. The monthly DROP credit is based on the participant's years of credited service and average monthly salary as of DROP Entry Date, and benefit accrual rates in effect on DROP Election Date.

DROP participation terminates when a DROP participant's employment with the City, or the System, terminates. The balance of the participant's notional DROP account (DROP Benefit) at the time of such termination is an amount equal to the sum of a participant's monthly DROP credits and interest accrued on such amount up to the time the participant's employment terminates. A DROP Benefit is subject to approval by the Board. A DROP participant eligible to receive a DROP Benefit distribution may elect to receive the distribution in a lump-sum, partial distribution, in substantially equal periodic payments over a period of time approved by the Board, or in a combination of a lump-sum followed by substantially equal periodic payments over a period of time approved by the Board until the balance of the DROP Benefit is depleted. The DROP Benefit is not available to a DROP participant until such participant's employment with the City or the System has terminated and the participant has made a DROP distribution election.

Group D participants do not participate in DROP.

#### Refunds of Participant Contributions

Group A participants who terminate employment prior to being approved for retirement may request a refund of their accumulated employee contributions, without interest, in lieu of a pension or in the event the participant has fewer than 5 years of credited service.



## NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### Basis of Presentation

The accompanying basic financial statements are presented in accordance with generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB), which designates the accounting principles and financial reporting standards applicable to state and local governmental units. The accompanying basic 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 pension benefits required by the governing statutes and amendments thereto.

#### Basis of Accounting

The economic resources basis of accounting is the method by which revenues and expenses are recognized in the accounts and reported in the basic financial statements. The accompanying basic financial statements are presented on the accrual basis of accounting. Under the accrual basis of accounting, revenues, which include investment and other income, are recognized when they are earned and collection is reasonably assured, and expenses are recognized when the liability is incurred. Accrued income, when deemed not collectible, is charged to operations. Participant and employer contributions are recognized as revenues in the period in which they are due pursuant to the Pension Statute and formal commitments. Benefits and refunds are recognized when due and payable in accordance with the terms of the Pension Statute.

#### Reporting Entity

The System is a component unit of the City. Therefore, its basic financial statements and required supplemental information are included in the City's Comprehensive Annual Financial Report.

#### Investment Valuation and Income Recognition

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. The fair value of limited partnerships and real estate trusts are based on the System's valuation of estimates and assumptions from

information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Short-term investments are carried at cost, which approximates fair value.

Purchases and sales of investments and forward foreign exchange contracts are recorded on the trade date. Gains or losses on the forward foreign exchange contracts are recognized when the contract is complete. Dividend income is recorded on the ex-dividend date. Interest and income from other investments are recorded when earned. Net appreciation/depreciation on investments represents realized gains and losses on sales of investments during the year and the change in the fair value of investments between years.

#### Furniture, Fixtures and Equipment

Furniture, fixtures and equipment are recorded at cost less accumulated depreciation and amortization. Depreciation and amortization expense is computed using the straight-line method over the estimated useful lives of the related assets ranging from three to ten years. Any gain or loss on the retirement of assets is recognized currently. Maintenance and repairs are charged to expense while expenditures for improvements greater than or equal to \$5,000 are capitalized.

#### Compensated Employee Absences

The System employees earn paid leave (vacation and sick leave) based on years of service and may accumulate them subject to certain limitations and be paid upon termination or resignation from the System. The amount paid is determined based on the departing employee's regular rate of pay at separation. Compensated employee absences (vacation, compensatory time off, annual leave and sick leave) are accrued as an expense and liability in the basic financial statements at their most current rate.

#### Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the basic financial statements and the reported amounts of additions and deductions during the



reporting period. Accordingly, actual results could differ from those estimates.

#### Income Tax Status

The System obtained its latest determination letter on April 23, 2002, in which the Internal Revenue Service stated that the System, as amended on May 11, 2001, is in compliance with the applicable requirements of the Internal Revenue Code. The System has been amended since receiving the determination letter. However, the System's management and Board believe that the System is currently designed and being operated in compliance with the applicable requirements of the Internal Revenue Code.

Accounting principles generally accepted in the United States of America require the System's management to evaluate tax positions taken by the System and recognize a tax liability (or asset) if the System has taken an uncertain position that more likely than not would not be sustained upon examination by the Internal Revenue Service. System management has analyzed the tax positions taken by the System, and has concluded that as of June 30, 2015 and 2014, there are no uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the basic financial statements. The System is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

#### Costs of Administering the System

The costs of administering the System are paid by the System from current earnings pursuant to an annual fiscal budget adopted by the Board.

#### New Accounting Pronouncements

GASB Statement No. 72, Fair Value Measurement and Application

In February 2015, GASB issued Statement No. 72, Fair Value Measurement and Application. This Statement provides guidance for determining a fair value measurement for financial reporting purposes as well as guidance for applying fair value to certain investments and disclosures related to all fair value measurements. This Statement is effective for fiscal years beginning after June 15, 2015. Management of the System is currently evaluating the impact of this new pronouncement on the System's financial statements.

## NOTE 3 - CONTRIBUTIONS AND FUNDING POLICY

Group A active participants are required to contribute to the System amounts as set forth in the Pension Statute. As of June 30, 2015 and 2014, the Group A participant contribution rate was 5% of a participant's qualifying base salary. Group B and Group D participants do not contribute to the System.

Under the System's Pension Statute, the City is required to contribute amounts to the System to provide funding on an actuarial reserve basis for normal cost plus the level of percentages of payroll payments based on its amortization period for the unfunded actuarial liability. On July 1, 2011, the Amended and Restated Meet and Confer Agreement (Agreement) between the System and the City went into effect.

Under the Agreement, the City contributed \$98.5 million to the System in fiscal year 2012, which was established under the Agreement as 19.36% of covered payroll. For each of the succeeding fiscal years, the City contributes either the previous fiscal year's rate (23.36% of covered payroll in FY2014) plus 2 percent of covered payroll, or the previous fiscal year's contribution amount plus \$10 million, whichever is greater. This provision will stay in place until the actuarially required contribution (ARC) rate is met as determined by the HMEPS actuary, at which time the ARC becomes the effective contribution rate. Historical contribution trend information is provided as required supplementary information on page 41.

The City's contribution rate, based on the Agreement, was 21.36% for fiscal year 2013, and 23.36% for fiscal year 2014, and was not set by actuarial valuation. The ARC for fiscal years 2014 and 2013 was calculated at 26.1% and 23.45%, respectively, as shown in the July 1, 2013 and 2012 Actuarial Valuations. Although the City and participants have contributed the amounts as required under the Agreement, the actual contributions made by the City have been less than the ARC for the periods covered by this report. As part of the Agreement, the Board's funding policy has been modified to use an open 30-year rolling amortization period until such time that the City's actual contribution rate is equal to the ARC, at which point the amortization period will be a closed 30 year period.



#### NOTE 4 - NET PENSION LIABILITY

The Total Pension Liability as of June 30, 2015, is based on the actuarial valuation date of July 1, 2014, and rolled-forward using generally accepted actuarial procedures. The net pension liability is measured as the total pension liability, less the amount of the pension plan's fiduciary net position. In actuarial terms, this will be the accrued liability less the market value of assets.

The Schedule of Net Pension Liability presents multiyear trend information (beginning with FY 2014) about whether the plan fiduciary net positions are increasing or decreasing over time relative to the total pension liability. In addition to the above, this information is presented as a required schedule in the Required Supplemental Information section beginning on page 41.

Actuarial valuation of the System involves estimates and assumptions about events in the future. Amounts determined regarding the net pension liability are subject to revision as actual results are compared with past expectations and new estimates are made regarding the future. The last experience study was performed on the 2009 valuation and the next experience study is scheduled to be conducted following the 2014 valuation.

A summary of the actuarial assumptions as of the latest actuarial valuation is shown here:

Valuation Date: July 1, 2013

Notes Actuarially determined contribution

rates are calculated as of July 1, which is 12 months prior to the beginning of the fiscal year in which

they are contributed.

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

**Actuarial Cost** 

Method Entry Age Normal

Amortization Level Percentage of Payroll, Open

Method (see notes)

Remaining Amortization

Period 30 years

Asset Valuation 5 Year smoothed market, direct

Method offset of deferred gains and losses

Inflation 3.0%

Salary

Increases 3.00% to 6.00% including inflation

Investment

Rate of Return 8.50%

Retirement Age Experience-based table of rates that

are specific to the type of eligibility condition. Last updated for the 2010 valuation pursuant to an experience

study of the period 2005 - 2009

Mortality RP-2000 Mortality Table scaled by

110% for males and 95% for females

#### Other Information:

The funding period will remain open until increases in the employer contribution rate being equal to the actuarially determined contribution, at which point the funding period will be closed. There were no benefit changes during the year.

#### Funded Status of the System as of June 30, 2015

FY Ending June 30	Total Pension Liability	Fiduciary Net Position	Net Liability	Fiduciary Net Position as a % of Pension Liability	Covered Payroll <sup>1</sup>	Net Pension Liability as a % of Covered Payroll
2015	\$4,531,179,075	\$2,456,543,559	\$2,074,635,516	54.21%	\$624,205,549	332.36%

<sup>&</sup>lt;sup>1</sup> With the adoption of GASB 67/68, GASB changed the definition of Covered Payroll to be total gross compensation. The Covered Payroll for fiscal year 2014 and later uses this new definition.



#### TARGET ALLOCATION TABLE AND DESCRIPTION

#### **EXPECTED RETURN ARITHMETIC BASIS**

Asset Class	Target Weight	Real Return Arithmetic Basis	Long Term Expected Portfolio Real Rate of Return			
Global Equity	35.0%	5.87	2.05			
Private Equity	17.5%	10.13	1.77			
Core Fixed Income	7.5%	1.57	0.12			
High Yield	7.5%	3.72	0.28			
Real Estate	10.0%	6.68	0.67			
Absolute Return	10.0%	5.58	0.56			
Inflation-Linked Assets	12.5%	7.71	0.96			
Totals	100.0%		6.41%			
Inflation			1.80%			
Expected arithmetic nominal return						

These returns are developed on a 10 year forward looking basis, using historical risk and correlation adjusted to recent trends. Return expectations represent a passive investment in the asset class and do not reflect value added from active management. An optimizer is used to generate an efficient frontier using these estimates; the efficient frontier represents the asset class distribution which would generate the maximum return for a given level of risk. The Board chooses an asset allocation that aims to maximize the safety of promised benefits while minimizing the cost of funding those benefits.

Sensitivity of Net Pension Liability to the Single Discount Rate Assumption

#### **CURRENT SINGLE DISCOUNT**

1% Decrease	Rate Assumption	1% Increase
7.50%	8.50%	9.50%
\$2,554,070,253	\$2,074,635,516	\$1,667,683,770

A single discount rate of 8.50% 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 8.50%. 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 equal to the difference between actuarially determined

contribution rates and the member rate. 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. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

The table above illustrates the sensitivity of the net pension liability to changes in the discount rate. In particular, the table presents the plan's net pension liability, if it were calculated using a single discount rate that is 1-percentage-point lower or 1-percentage-point higher than the single discount rate.

## NOTE 5 - DEFERRED RETIREMENT OPTION PLAN (DROP) BALANCES

The DROP provides that a monthly amount (monthly DROP credit) will be credited to a notional account (DROP Account). A DROP Benefit is subject to approval by the System's Board. The DROP Benefit is not available to a DROP participant until such participant's employment with the City or the System has terminated and the participant has made a DROP distribution election. For a more detailed description of DROP terms, see Note 1.

DROP balances for all active and inactive participants totaled \$452.2 million at the end of fiscal year 2015, and \$392.5 million in fiscal year 2014.

#### NOTE 6 - CASH AND CASH EQUIVALENTS

For cash deposits and cash equivalents, Custodial Credit Risk is the risk that in the event of a bank failure, the System's deposits may not be returned to it. The System's deposits are held by State Street Bank and Trust Company. As of June 30, 2015 and 2014, the System had fair value bank balances of \$536,258 and \$609,929, respectively, that are in demand deposit accounts subject to coverage by Federal Deposit Insurance Corporation (FDIC) but not collateralized. The System does not have a deposit policy for custodial credit risk; however, the management believes that the System's credit risk exposure is mitigated by the financial strength of the banking institution in which the deposits are held.



#### NOTE 7 - DEFERRED COMPENSATION PLAN

The System offers its employees a deferred compensation plan (DCP) created in accordance with Internal Revenue Code Section 457. The DCP, available to all employees of the System, permits employees to defer a portion of their salary until future years. Distributions from the DCP are not available to employees until termination, retirement, death or unforeseeable emergency. The DCP has a third party administrator, Empower Retirement, formerly Great-West Retirement Services, and the cost of administration and funding is borne by the DCP participants. Amounts deferred are held in trust by Empower Retirement and, since the System has no fiduciary responsibility for the DCP, these amounts are not reflected in the accompanying financial statements in accordance with GASB Statement No. 32, Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans.

## NOTE 8 - POST-EMPLOYMENT BENEFITS OTHER THAN PENSION BENEFITS

#### Health Care Plan Description

The System provides health care benefits (i.e., medical, prescription, dental) to current and retired System employees and their beneficiaries. The System also provides System employees with life insurance and offers System retirees only with \$5,000 of life insurance. A System employee is eligible for retiree health benefits and life insurance if the individual has at least five years of full-time service with the System and meets at least one of the following conditions:

- Has retired due to disability
- · Age 62 or greater
- Total of years of age and years of full-time service are greater than or equal to 70
- Employee is eligible to begin receiving a retirement pension within five years after the employee's termination of employment.

The health care benefits are partially self-funded by the System. The System is fully responsible for the self-funded benefits. An insurance company processes claims and provides other services to the System related to the self-funded benefits. The insurance company does not insure or guarantee the self-funded benefits. However, the System's plan includes an excess loss insurance established by the

insurance company and the System is insured for the aggregate excess loss of \$20,000 maximum amount per covered person.

## Funding Policy and Other Post-Employment Benefits (OPEB)

Contribution requirements of the System's retired employees are established and may be amended by the Board. The System currently offers a choice of two insurance plans, a conventional preferred provider organization (PPO) plan and a high deductible health plan. Retiree health care contributions depend on their choice of plan. For life insurance, the retiree pays 100% of the cost of the premium.

The System's annual Other Post-Employment Benefits (OPEB) cost is calculated based on the Annual Required Contribution (ARC) of the employer, and is an amount that is actuarially determined in accordance with the parameters of GASB Statement No. 45, Accounting and Financial Reporting by Employers for Post-employment Benefits Other Than Pensions. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. The latest actuarial valuation, as of June 30, 2015, covers a three year period through fiscal year 2017. Additionally, the System's annual OPEB costs are listed in this table:

	June 30, 2015	June 30, 2014	June 30, 2013
Annual required contribution	557,952	438,951	426,166
Interest on OPEB obligation	86,578	72,152	57,889
Adjustment to ARC	(80,214)	(66,848)	(53,633)
Annual OPEB cost (end of year)	564,316	444,255	430,422
Net estimated employer contributions	(135,935)	(123,676)	(113,445)
Increase in net OPEB obligation	428,381	320,579	316,977
Net OPEB obligation — as of beg. of year Net OPEB	1,923,957	1,603,377	1,286,400
obligation — as of end of year	2,352,338	1,923,956	1,603,377





### THREE-YEAR TREND INFORMATION

	Annual		
Year	OPEB	Percentage	Net OPEB
Ended	Cost	Contributed	Obligation
6/30/13	\$430,422	26.4%	\$1,603,377
6/30/14	444,255	27.8%	1,923,956
6/30/15	564,316	24.1%	2,352,338

### Funded Status and Funding Progress

The most recent funded status of the System's retiree health care plan, under GASB Statement No. 45 as of June 30, 2015 is as follows:

Actuarial Valuation Date as of June 30,	Actuarial Value of Assets (a)	Accrued Liability (ML) (b)	Unfunded AAL (MAO) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)	
2015	-0-	\$5,167,086	\$5,167,086	0%	\$2,608,493	198.1%	

Under the reporting parameters, the System's retiree health care plan is 0% funded with an estimated actuarial accrued liability exceeding actuarial assets by \$5,167,086 at June 30, 2015. The above funded status figures are required to be updated every three years. The three-year trend chart above was prepared by the System, while all other listed figures presented were prepared by the System's actuary, Gabriel, Roeder, Smith & Company.

### Actuarial Methods and Assumptions

The projected unit credit, level percent of payroll actuarial cost method is used to calculate the GASB ARC for the System's retiree health care plan. Using the plan benefits, the present health premiums and a set of actuarial assumptions, the anticipated future payments are projected. The projected unit credit method then provides for a systematic funding for these anticipated payments.

The yearly ARC is computed to cover the cost of benefits being earned by covered members as well as to amortize a portion of the unfunded accrued liability. If experience is in accordance with the assumptions used, the ARC will increase at approximately the same rate as active employee payroll, and the ARC as a percentage of payroll will remain basically level on a year to year basis. Projections of health benefits are based on the plan as understood by the System and include the types of benefits in force at the valuation date and the pattern of sharing benefit costs between

the System and the System's employees to that point. Actuarial calculations reflect a long-term perspective and employ methods and assumptions that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets. Significant methods and assumptions were as follows for the System's retiree healthcare plan:

### **ACTUARIAL METHODS AND ASSUMPTIONS**

Investment rate of return	4.5%, net of expenses
Salary increases	Graded rates based on years of service (range from 3.0 percent to 6.0 percent)
Payroll growth factor	3.0% per year
General inflation rate	3.0% per year
Actuarial cost method	Projected Unit Credit Cost Method
Amortization method	Level percentage of pay
Amortization period	30 Year, open
Health care inflation rate	Starting at 7.25 % in 2016 and decreasing by ¼ % each year to 4.5% by 2027

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events in the future. Amounts determined regarding the funded status and the annual required contributions of the System's retiree health care plan are subject to continual revision as actual results are compared to past expectations and new estimates



are made about the future. The required schedule of funding progress for OPEB presented as required supplementary information (see schedule 5) provides multi-year trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

### **NOTE 9 - INVESTMENTS**

Portions of the System's investments are classified as security investments. A security is a transferable financial instrument that evidences ownership or creditorship. Investments in commingled funds, limited partnerships, real estate trusts, and loans and mortgages are investments that are evidenced by contracts rather than securities. The fair values of the System's investments at June 30 are presented by type:

	_	2015	2014
Short-term investment funds	\$	78,699,020\$	48,569,270
Government securities		85,622,635	83,699,960
Corporate bonds		225,280,044	223,848,665
Capital stocks		768,810,623	866,082,050
Commingled funds		393,973,477	382,671,667
Real assets		239,169,712	207,977,789
Alternative investments		675,784,017	651,778,839
	\$2	2,467,339,528 \$2	2,464,628,240

### Rate of Return

For the fiscal year ended June 30, 2015, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expenses, was 3.5%. The money weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. In addition, the money weighted rate of return is similar to the gross time weighted return of 3.4% that appears mainly in Table 1 on page 19. The two approaches are slightly different methods of calculating investment returns.

### Investment Policy

The Board has the authority to establish the investment policy and the asset allocation policy. The general investment objective is to obtain a reasonable long term total return consistent with the degree of

risk assumed while emphasizing the preservation of capital.

In April 2013, the Board changed the asset allocation effective July 1, 2013. The former asset allocation was 20% US Equity, 20% International Equity, 20% Fixed Income, 12% Real Estate,5% Inflation Linked, 18% Private Equity and 5% Absolute Return. The new allocation is 35% Global Equity, 15% Fixed Income, 10% Real Estate, 12.5% Inflation Linked, 17.5% Private Equity and 10% Absolute Return. For the System's actual allocation, see the chart on page 18.

### The Master Custodian

The System's Board, in accordance with the power and authority conferred under the Texas Statutes, employed State Street Bank and Trust Company (Custodian) as custodian of the assets of the System, and in said capacity, the Custodian is a fiduciary of the System's assets with respect to its discretionary duties including safekeeping the System's assets. The Custodian has established and maintains a custodial account to hold, or direct its agents to hold, for the account of the System all assets that the Board shall from time to time deposit with the Custodian. All rights, title and interest in and to the System's assets shall at all times be vested in the System.

In holding System assets, the Custodian shall act with the same care, skill, prudence and diligence under the prevailing circumstances that a prudent person acting in like capacity and familiar with matters of this type would use in the conduct of an enterprise with a like character and with like aims.

Further, the Custodian shall hold, manage and administer the System's assets for the exclusive purpose of providing the benefits to the members and the qualified survivors of the System.

The Board shall manage the investment program of the System in compliance with all applicable Federal and State statutes and regulations concerning the investment of pension assets. The Board has adopted an Investment Policy Statement to set forth the factors involved in the management of investment assets for the System and which is made part of every investment management agreement.





### Custodial Risk

For an investment, custodial risk is the risk that, in the event of the failure of the counterparty the System will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial risk if the securities are uninsured, are not registered in the name of the System, and are held by either the counterparty or the counterparty's trust department or agent but not in the System's name.

At June 30, 2015 and 2014, the System's investments that were not subject to custodial credit risk were the investments in U.S. government securities and corporate bonds as they are registered in the name of the System and held in possession of the Custodian.

### Concentration Risk

The allocation of assets among various asset classes is set by the Board. For major asset classes (e.g., global equity, fixed income, real estate, private equity, inflation-linked, and absolute return.), the System will further diversify by employing managers with demonstrated skills in complementary areas of expertise. The managers retained will utilize varied investment approaches, but, when combined will exhibit characteristics that are similar, but not identical, to the asset class proxy utilized in the strategic asset allocation plan. The Investment Policy Statement of the System provides that no public market investment manager shall have more than 20% (at market value) of the System's assets.

Representative guidelines by type of investment are as follows:

### U.S. Equity Managers

- A manager's portfolio shall contain a minimum of twenty-five issues.
- No more than 5% of the manager's portfolio at market shall be invested in American Depository Receipts (ADRs).
- No individual holding in a manager's portfolio may constitute more than 5% of the outstanding shares of an issuer.
- No individual holding may constitute more than 5% of a manager's portfolio at cost or 10% at market.

- Short sales, purchases on margin, non-negotiable or otherwise restricted securities are prohibited, other than where expressly permitted.
- While there are no restrictions on cash, a manager must notify the System if the cash position exceeds 10%.

### International Equity Managers

- Not more than 5% at cost and 10% at market value of a manager's portfolio shall be invested in the securities of any one issuer.
- Not more than 30% of the assets of a manager's portfolio (at market value) shall be invested in any one country with the exception of Japan.
- While there are no restrictions on cash, a manager must notify the System if the cash position exceeds 10%.
- Forward foreign currency exchange contracts will be limited as follows:
  - forward and future exchange contracts of any currency may be used to hedge up to 100% of the currency exposure of the portfolio in aggregate or of the currency exposure to any single country,
  - foreign exchange contracts with a maturity exceeding 12 months may not be made, and
  - currency options may be entered into in lieu of or in conjunction with forward sales of currencies. The same effective limitations specified in (a) and (b) above will apply to currency options.

### Fixed Income Managers

- No more than 10% of a manager's portfolio at market shall be invested in the securities of any single issuer, with the exception of the U.S. government and its agencies.
- No individual holding in a manager's portfolio shall constitute more than 10% of the market value of an issue.

Global Opportunistic Fixed Income/High Yield Managers

 No more than 5% at cost and 10% at market value of a manager's portfolio shall be invested in the securities of any single issuer, with the exception of the U.S. government and its agencies.

As of June 30, 2015, across all asset classes, the System held one security with a market value over 5%



### NOTES TO BASIC FINANCIAL STATEMENTS | JUNE 30, 2015 AND 2014

of the System's fiduciary net position. The security, BlackRock MSCI ACWI Minimum Volatility Index, had a fair value of \$234 million, representing 9.5% of the System's portfolio as of June 30, 2015. There were no securities held by the System from a single issuer that exceeded 9.5% in FY2015.

### Interest Rate Risk

The System invests in fixed income securities including, but not limited to, investments representing instruments with an obligated fixed rate of interest including public and private debentures, mortgages, investments in life insurance general accounts and guaranteed investment contracts, with maturities greater than one year, and options/futures. Instruments may have an investment grade or non-investment grade rating. Purchases and sales, investment selection and implementation of investment strategies are delegated to the discretion of the investment

manager, subject to compliance with its management agreement and the Investment Policy.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the investment. Duration is a measure of a debt investment's exposure to fair value changes arising from changes in interest rates. It uses the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates and vice-versa. Duration is the measure of a bond price's sensitivity to a 100-basis point change in interest rates. The duration of the System's debt securities is managed by the active managers.

At June 30, 2015, the following table shows the System's investments by type, amount and the effective duration rate, as seen here:

	Effective Duration	Domestic	International	Fair Value
Collateralized mortgage obligations	2.41	\$ 12,417,397	-	12,417,397
Convertible bonds	3.28	6,163,356	-	6,163,356
Corporate bonds	5.44	156,782,851	4,642,623	161,425,474
GNMA/FNMA/FHLMC	3.43	30,014,505	-	30,014,505
Municipal	8.80	1,363,440	-	1,363,440
Government issues	5.39	49,101,110	5,143,580	54,244,690
Misc. receivable (auto/credit card)	2.51	6,177,541	-	6,177,541
Other asset backed securities	3.40	268,367	-	268,367
Bank Loan <sup>1</sup>	N/A	37,110,435	1,717,474	38,827,909
		\$ 299,399,002	11,503,677	310,902,679

1The bank loan market, or "leveraged loan" market as it is sometimes known, comprises debt with below investment grade credit ratings. Bank loans generally rank senior to the company's other debt, and offer higher credit ratings, and less risk than high yield bonds. Bank loans typically use floating rather than fixed interest rates. Companies often tap this market to fund leveraged buyouts.



12.60% 87.40% 100.00%

\$ 310,902,679 2,156,436,849 \$ 2,467,339,528

\$1,363,440 \$268,367

\$ 54,244,690

Securities \$4,182,579 \$38,827,909 \$12,417,397 \$6,163,356 \$161,425,474 \$1,994,963 \$4,646,909 \$19,141,244 \$2,365,928 \$3,860,424

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at June 30, 2015

ตี	are as tollows:														
Quality	AUTO Ity LOAN RECV.	BANK	OW	CONVERT. BONDS	CORP. BONDS	CREDIT CARD RECV.	FHLMC	FNM A	GNMA	E S S S S S S S S S S S S S S S S S S S	GOVERNMENT ISSUES	MUNICIPALS	OTHER ASSET BACKED	Total Fixed Income Securities	Percentage of Holdings
AAA	€9	\$	\$ 5,871,855		\$ 1,151,438	\$ 1,809,576	\$	- ↔	\$	\$	\$	\$ 422,094		\$ 11,090,294	0.45%
AA	120,177	•	1,018,285	•	516,364	•		•	1	•	•	388,718		2,043,544	0.08%
AA+	540,453	•	501,633	•	1,919,915	185,387	•	1	1	•	1,184,302	162,270	•	4,493,959	0.18%
AA-	963,370		209,486	•	236,674	•	•	1	1	•	•	•	•	1,409,530	0.06%
∢	831,251		,	1	8,241,638	•		1	1	•	2,787,372	259,354	,	12,119,615	0.49%
+ +	ī	•	467,313	•	1,739,315		•	1	1	•	•	131,004	•	2,337,632	0.09%
\d	ī	•	465,976	•	9,093,834	•		•	1	•	•	•		9,559,810	0.39%
BBB	1		,	•	4,884,332	•	•	1	1	•	•	•	,	4,884,332	0.20%
BBB+	1		,	•	12,506,316	•	•	1	1	•	•	•	•	12,506,316	0.51%
BBB-	1	•	,	387,839	6,352,161	•	•	•	1	•	•	•	•	6,740,001	0.27%
BB	ī	•	,	43,760	9,713,590		•	1	1	•	•	•	•	9,757,350	0.40%
BB+	ī	•	,	1,767,793	5,579,450	•		•	1	•	•	•		7,347,243	0.30%
BB-	ī	•	,	1,585,038	13,023,154		•	1	1	•	•	•	•	14,608,192	0.59%
ш	ī	•	,	1,441,266	12,357,880		•	•	1	•	•	•		13,799,146	0.56%
+ B	ī	•	•	804,091	17,052,002		•	•	1	•	•	•		17,856,093	0.72%
ė	r	•	•		11,139,555	•	٠		•	•		•	٠	11,139,555	0.45%
200	r	•	•		2,631,951	•	٠		•	•		•	٠	2,631,951	0.11%
+ 000	r		•		32,349,896			•		•	49,120	•		32,399,016	1.31%
500	r		•		1,428,538			•	•	•	•	•		1,428,538	0.06%
۵	r		•		2,731,800			•	•	•	•	•		2,731,800	0.11%
N R	160,363	38,827,909	3,882,848	133,569	6,775,671	•	4,646,909	19,141,244	2,365,928	3,860,424	50,223,897		,	130,018,763	5.27%
Total Fixed	ixed														

\*NR = non-rated

Other Investments
Total Investments

### Credit Risk

The quality ratings of investments in fixed income securities are set forth in the Investment Policy Statement as follows:

- 1. All issues purchased by investment grade fixed income managers must be of investment grade quality BAA (Moody's) or BBB (S&P) unless expressly authorized by the Board, in which case a minimum B rating shall apply, with a maximum limit of non-investment grade credits of 20% at market.
- 2. For global opportunistic fixed income/high yield securities, more than 50% of a manager's portfolio at market shall be invested in non-investment grade fixed income securities, i.e. those with ratings of BA1 (Moody's), BB+ (Standard & Poor's), or lower, or unrated bonds, including but not limited to corporate bonds, convertible bonds, and preferred stocks.

### Foreign Currency Risk

International securities investment managers are expected to maintain diversified portfolios by sector and by issuer using the System's Investment Policy.

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. Each investment manager, through the purchase of units in a commingled investment trust fund or international equity mutual fund, establishes investments in international equities. The System has an indirect exposure to foreign currency fluctuation as of June 30, 2015 as follows:

•			
	_	Fair Value	Percentage
Australian Dollar	\$	3,706,444	0.15%
Brazilian Real		3,363,232	0.14%
Canadian Dollar		8,699,022	0.35%
Danish Krone		3,851,807	0.16%
Euro Currency		76,627,396	3.10%
Hong Kong Dollar		16,469,150	0.67%
Indonesian Rupiah		2,126,804	0.09%
Japanese Yen		26,196,011	1.06%
Malaysian Riggit		22	0.00%
Mexican Peso		3,344,694	0.14%
New Taiwan Dollar		2,392,095	0.10%
Norwegian Krone		6,448,761	0.26%
Pound Sterling		56,857,261	2.29%
Singapore Dollar		3,366,026	0.14%
South African Rand		2,593,160	0.11%
South Korean Won		5,209,533	0.21%
Swedish Krona		4,530,895	0.18%
Swiss Franc		15,615,430	0.63%
Thailand Baht		1,743,156	0.07%
Turkish Lira		2,668,885	0.11%
US Dollar		2,222,066,002	90.04%
	\$	2.467.875.786	100.00%

Schedule 8 on page 47 lists the System's investment and professional service providers.

### Securities Lending

The System is authorized under its Investment Policy Statement to participate in a securities lending program through its agent and Custodian. Under this program, for an agreed upon fee, System-owned investments are loaned to a borrowing financial institution. During the years ended June 30, 2015 and 2014, the Custodian lent the System's securities and received cash and securities issued or guaranteed by the United States government as collateral. The cash collateral received on each loan is invested together with the cash collateral of other lenders, in a collective investment pool comprised of a liquidity pool and a duration pool. As of June 30, 2015 and June 30, 2014, the liquidity pool had an average duration for USD collateral of 27.64 and 37.4 days, and an average weighted final maturity of 109.17 and 104 days, respectively. As of June 30, 2015 and 2014, the duration pool for USD collateral had an average duration of 42.27 and 41.80 days and an average weighted final maturity of 2,106 and 1,770 days, respectively. Because the loans were terminable at will, their duration did not generally match the duration of the investments made with cash collateral.

Borrowers are required to deliver collateral for each loan equal to: (i) in the case of loaned securities denominated in United States dollars or whose primary trading market was located in the United States or sovereign debt issued by foreign governments, 102% of the market value of the loaned securities; and (ii) in the case of loaned securities not denominated in United States dollars or whose primary trading market was not located in the United States, 105% of the market value of the loaned securities. The Custodian does not have the ability to pledge or sell securities delivered for collateral, absent a borrower's default. The Board and the borrowers maintained the right to terminate all securities lending transactions on demand.

On March 26, 2009, the Board amended its securities lending agreement with its Custodian to clarify responsibilities regarding borrower defaults. The amendment requires that if at the time of a default by a borrower, the Custodian shall indemnify the System against the failure of the borrower to return the loaned securities by purchasing a number of replacement securities equal to the number of such unreturned loaned securities, to the extent that such replacement securities are available on the open market. To the



extent that such proceeds are insufficient or the collateral is unavailable, the purchase of replacement securities shall be made at the Custodian's expense. If replacement securities are unavailable, the Custodian will credit to the System's account an amount equal to the market value of the unreturned loaned securities for which replacement securities are not purchased. The Board also approved a motion limiting the System's securities lending program utilization level (on-loan balance as a percentage of lendable assets) at 33.5%.

The collateral held and the fair value of securities on loan as of June 30, 2015 (USD) was \$101,533,453 and \$115,339,782, respectively and \$139,504,403 and \$141,814,672, as of June 30, 2014, respectively.

The fair values of the underlying securities lent as of June 30, are as follows:

	2015		_	2014
Domestic equity	\$	85,403,282	\$	86,004,232
Domestic fixed income		22,797,198		42,350,571
International equity		7,639,301		13,459,869
	\$	115,839,781	\$	141,814,672

### Derivative Investing

The System's investment managers may invest in derivatives if permitted by the guidelines established by the System's Board. Derivatives are generally defined as contracts whose values depend on, or are derived from, the value of an underlying asset, reference rate or index. Short options positions will generally be hedged with cash, cash equivalents, current portfolio security holdings, or other options or futures positions.

During fiscal year 2015, the System recognized a gain of \$1,443,170, while 2014 recognized a loss of \$1,551,686, related to derivatives.

The System's investment guidelines allow fixed income managers to hold stock rights and warrants acquired as a result of a re-organization. Domestic equity managers may use index futures as a cash flow hedge. Two and four of the System's domestic investment managers held rights and warrants on behalf of the System during fiscal year 2014 and 2013, respectively.

Three of the System's international money managers during fiscal year 2014 and 2013 respectively, held foreign exchange forwards and stock rights and warrants to mitigate the risk associated with these investments.

As of June 30, 2015 and 2014, the System held derivatives with a notional value of \$26,529 and \$26,749 and a fair value of \$479,470 and \$893,551, respectively.

The following is a summary of derivatives held directly by the System:

Fair Value	201	15	20	14
Classification	Amount	Notional	Amount	Notional
Common Stock	\$ 479,470	\$ 26,529	\$ 893,551	\$ 26,749

### **Changes in Fair Value**

Investment Derivatives	Classification	2015	2014
Rights	Investment revenue	\$ (117,194)	\$ (6,994)
Warrants	Investment revenue	1,560,364	(1,544,692)
Totals		\$ 1,443,170\$	(1,551,686)

In addition to the above, the System has exposure to derivatives through its investments in hedge funds, reported in alternative investments in the financial statements.

### Covered Call Options

The System may write covered call options as an investment technique to enhance portfolio returns and to reduce portfolio volatilities. When a call option is sold (written), it obligates the System to deliver stock at a set price for a specific period of time. The System receives premium income for options written, and the value of the options are recorded as a liability due to the obligation to deliver stock. The liability is recorded at the current fair value of the options written. Fair value is the amount that the System would pay to terminate the contracts at the reporting date.

If a call option expires, a gain is realized to the extent of the premium received. If a call option is exercised, the premium received is realized as a gain. A gain or loss is also realized on the underlying security to satisfy the delivery obligation. The System may repurchase a call option written at its discretion when it is favorable



### NOTES TO BASIC FINANCIAL STATEMENTS | JUNE 30, 2015 AND 2014

to do so. When a contract is repurchased, the liability is reduced and the difference between the premium received and the amount paid to close the contract is realized as a gain or loss.

The System held no options at June 30, 2015 and 2014.

### Forward Foreign Exchange Contracts

A currency forward is a contractual agreement between two parties to pay or receive specific amounts of foreign currency at a future date in exchange for another currency at an agreed upon exchange rate. Forward commitments are not standardized and carry credit risk due to the possible nonperformance by one of the counter-parties. The maximum potential loss is the aggregate face value in U.S. dollars at the time the contract was opened; however, the likelihood of such loss is remote. No such losses occurred during fiscal years 2015 and 2014. Forwards are usually traded over-the-counter. These transactions are entered into in order to hedge risks from exposure to foreign currency rate fluctuation and to facilitate trade settlement of foreign security transactions. Forwards carry market risk resulting from adverse fluctuations in foreign exchange rates. Recognition of realized gain or loss depends on whether the currency exchange rate has moved favorably or unfavorably to the contract holder upon termination of the contract. Prior to termination of the contract, the System records the unrealized currency translation gain or loss based on the applicable forward exchange rates.

### Mortgage-Backed Securities

A mortgage-backed security depends on the underlying pool of mortgage loans to provide the cash flow to make principal and interest payments on the security. A decline in interest rates can result in prepayments, called contraction risk. This risk occurs as mortgages are pre-paid or refinanced which reduces the expected return of the security. If interest rates rise the likelihood of prepayments decreases, resulting in extension risk. Since loans in a pool underlying a security are being prepaid at a slower rate, investors are unable to capitalize on higher interest rates because their investments are locked in at a lower rate for a longer period of time. A collateralized mortgage obligation (CMO) is a type of mortgage-backed security that creates separate pools of pass-through rates for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

The System may invest in mortgage-backed securities to enhance fixed-income returns Mortgage-backed securities are subject to credit risk, in that the borrower may be unable to meet its obligations.

## NOTE 10 - FURNITURE, FIXTURES AND EQUIPMENT

Furniture, fixtures and equipment are comprised as follows at June 30:

	_	2015	_	2014
Office furniture and equipment	\$	55,531	\$	55,542
Computer equipment		786,967		687,199
Leasehold improvements		146,765		130,773
	Ī	989,263	_	873,514
Less accumulated depreciation and				
amortization		(594,090)	_	(429,607)
	\$	395,173	\$	443,907

Depreciation expense for fiscal years 2015 and 2014 are \$164,483 and \$97,686, respectively.

### **NOTE 11 - COMMITMENTS**

As described in Note 1, certain participants of the System are eligible to receive, upon request, a refund of their accumulated Group A and/or Group C contributions, without interest, upon termination of employment with the City, or System, prior to being eligible for pension benefits. At June 30, 2015 and 2014, aggregate contributions from these eligible participants of the System were approximately \$153,851,812 and \$147,604,126, respectively.

The System's investments in limited partnerships and real estate trusts are included in the first table appearing in Note 9. In connection with those investments, the System has remaining commitments as of June 30, 2015 and 2014 of approximately \$680 million and \$603 million, respectively, pursuant to terms of the respective limited partnerships and real estate trusts.

The System leased office facilities under a five-year lease, ending October 31, 2016, and extended the term of the lease by ten years, ending October 31,



2026. This lease agreement began with a base rent of \$14 per square foot for the first eighteen months. Subsequently, the rent increases by \$0.50 per square foot per year until October 31, 2016, after which the base rent is \$23.50 per square foot for 12 months, subsequently increasing by \$0.50 per square foot per year for the remainder of the term.

The payments under the lease will be:

Year	Amount
Fiscal year 2016	\$571,228
Fiscal year 2017	\$689,972

Additional amounts are assessed for use of common areas, utilities and maintenance. Total rental expense, including these assessments, amount to approximately \$564,544 and \$520,000 during the years ended June 30, 2015 and 2014, respectively.

The System has other annual and/or monthly lease services for copiers, miscellaneous office equipment, and offsite storage totaling approximately \$33,000 for fiscal years 2015 and 2014. Each of these contracts contains a cancellation provision.

### NOTE 12 - RISKS AND UNCERTAINTIES

The System invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the value of investment securities will occur in the near term and that such change could materially affect the amounts reported in the statements of plan net assets.

The System's contribution rates are made and the actuarial information included in the Notes and in Schedules 1, 2 and 3 are based on certain assumptions pertaining to interest rates, inflation rates and participant demographics, all of which are subject to change. Due to uncertainties inherent in the estimations and assumptions process, it is at least reasonably possible that changes in these estimates and assumptions in the near term could be material to the basic financial statements.

### NOTE 13 - SUBSEQUENT EVENTS

Management has evaluated subsequent events through September 24, 2015, the date on which the financial statements were available to be issued. Management has determined that the following subsequent event requires disclosure in these financial statements: On March 20, 2015, the Texas Supreme Court in the Klumb v. Houston Municipal Employees Pension System case issued a decision confirming the authority of the System's Board of Trustees to determine that persons employed by Houston First Corporation ("HFC"), Houston First Foundation ("HFF"), and CCSI, Inc. ("CCSI") constitute employees of the City of Houston for purposes of membership in the System's pension plan. Following unsuccessful attempts by the System to obtain compliance by the City with the Texas Supreme Court's ruling and its statutory duties to provide information and pay contributions into the plan for HFC, HFF and CCSI employees, the System filed Houston Municipal Employees Pension System v. City of Houston et al., No. 2015-35252, in the 333rd Judicial District Court of Harris County, Texas, against the City and its representatives. The lawsuit seeks, among other things, writs of mandamus compelling the City and its representatives to provide payroll and other information regarding the HFC, HFF, and CCSI employees and to make the contributions and pick up payments owed for those employees. On September 17, 2015, the City filed a counterclaim and third-party claim against HMEPS and its board alleging breach of agreement, violation of unspecified statutory provisions, and inverse condemnation. The City also subsequently filed a Plea to the Jurisdiction, which HMEPS disputes, alleging that the court does not have jurisdiction to hear HMEPS' causes of action. HMEPS and its board deny the City has any viable claims, and that such claims are barred by, among other things, the Klumb decision.



### SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY (UNAUDITED) (SCHEDULE 1)

Fiscal year ending June 30,		2015		2014
Total Pension Liability	_			
Service Cost	\$	59,465,512	\$	61,480,204
Interest on the Total Pension Liability		363,639,884		348,418,895
Benefit Changes		-		-
Difference between Expected and Actual Experience		(22,057,834)		-
Assumption Changes		-		-
Benefit Payments		(234,954,625)		(221,925,083)
Refunds		(1,549,404)		(1,213,474)
Net Change in Total Pension Liability		164,543,533		186,760,542
Total Pension Liability- Beginning	_	4,366,635,542		4,179,875,000
Total Pension Liability - Ending (a)	\$_	4,531,179,075	_\$	4,366,635,542
Plan Fiduciary Net Position				
Employer Contributions	\$	145,007,059	\$	128,274,419
Employee Contributions		16,198,216		16,579,600
Pension Plan Net Investment Income		73,370,310		352,522,858
Benefit Payments		(234,954,625)		(221,925,083)
Refunds		(1,549,404)		(1,213,474)
Pension Plan Administrative Expense		(7,007,422)		(6,414,668)
Other		1,040,548		-
Net Change in Plan Fiduciary Net Position	_	(7,895,318)		267,823,652
Plan Fiduciary Net Position - Beginning		2,464,438,877		2,196,615,225
Plan Fiduciary Net Position - Ending (b)	\$	2,456,543,559		2,464,438,877
Net Pension Liability - Ending (a) - (b)	_	2,074,635,516		1,902,196,665
Plan Fiduciary Net Position as a Percentage of Total Pension Liability		54.219	6	56.44%
Covered Employee Payroll <sup>1</sup>	\$	624,205,549	\$	598,245,952
Net Pension Liability as a Percentage of Covered Employee Payroll		332.369	6	317.96%

### Notes to Schedule: NA

See accompanying independent auditors' report.

See accompanying note to required supplemental schedules.

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.



<sup>1.</sup> With the adoption of GASB Statement No. 67, GASB changed the definition of Covered Payroll to be total gross compensation. The Covered Payroll for fiscal year 2014 and later uses this new definition.

### SCHEDULE OF NET PENSION LIABILITY (UNADITED) (SCHEDULE 2)

### **Funded Status of System**

FY				Plan Net Position as a %		Net Pension Liability as a
Ending June 30,	Total Pension Liability	Plan Net Position	Net Position Liability	of Total Pension Liability	Covered Payroll <sup>1</sup>	% of Covered Payroll
2014	\$ 4,366,635,542	\$ 2,464,438,877	\$ 1,902,196,665	56.44%	\$ 598,245,952	317.96%
2015	\$ 4,531,179,075	\$ 2,456,543,559	\$ 2,074,635,516	54.21%	\$ 624,205,549	332.36%

<sup>1.</sup> With the adoption of GASB Statement No. 67, GASB changed the definition of Covered Payroll to be total gross compensation. The Covered Payroll for fiscal year 2014 and later uses this new definition.

See accompanying independent auditors' report.

See accompanying note to required supplemental schedules.

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

### SCHEDULE OF EMPLOYER CONTRIBUTIONS (UNAUDITED) (SCHEDULE 3)

FY Ending June 30,	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll <sup>2</sup>	Actual Contribution as a % of Covered Payroll <sup>3</sup>
2006	127,234,109	66,967,596	60,266,513	422,496,000	15.85%
2007	106,568,897	70,264,721	36,304,176	448,925,000	15.65%
2008	116,281,212	73,271,799	43,009,413	483,815,000	15.14%
2009	102,257,047	76,837,216	25,419,831	539,023,000	14.25%
2010	107,535,744	82,052,013	25,483,731	550,709,000	14.90%
2011	107,472,679	87,284,737	20,187,942	544,665,000	16.03%
2012	122,465,396	97,161,723	25,303,673	534,394,000	18.18%
2013	124,317,102	111,858,885	12,458,217	549,971,000	20.34%
2014	144,953,327	128,274,419	16,678,908	598,245,952	21.44%
2015	155,299,296	145,007,059	10,292,237	624,205,549	23.23%

The covered payroll reported prior to fiscal year 2014 is based on pensionable pay. With the adoption of GASB Statement No. 67, GASB changed the definition
of Covered Payroll to be total gross compensation. The Covered Payroll for fiscal year 2014 and later uses this new definition. For comparison purposes, if the
Covered Payroll number for fiscal year 2014 was still based on pensionable pay it would have been \$555,376,730.

See accompanying independent auditors' report.

See accompanying note to required supplemental schedules.



<sup>3.</sup> The Actual Contribution as a % of Covered Payroll does not correspond to the funding requirements of the Amended and Restated Meet and Confer Agreement and should not be used for funding purposes.

### NOTES TO REQUIRED SUPPLEMENTAL INFORMATION (UNAUDITED)

**Note to Schedules 1 and 2 -** The total pension liability contained in this schedule was provided by the System's retained actuary, Gabriel, Roeder, Smith & Company. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the System.

**Note to Schedule 3** - The required employer contributions and percent of those contributions actually made are presented in the schedule. The information presented was used in the actuarial valuation for purposes of determining the actuarially determined contribution rate. The assumptions and methods used for this actuarial valuation were recommended by the actuary and adopted by the Board. Additional information as of the latest actuarial valuation is presented in the table below.

Valuation Date: July 1, 2013

Notes: Actuarially determined contribution rates are calculated as of July 1, which is 12 months prior to the beginning of the fiscal year in which they are contributed.

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

Amortization method Level Percentage of Payroll, Open (see notes)

Remaining amortization period 30 years

Asset valuation method 5 Year smoothed market, direct offset of deferred gains and losses

Inflation 3.0%

Salary increases 3.00% to 6.00% including inflation

Investment rate of return 8.50%

Retirement age Experience-based table of rates that are specific to the type of eligibility

condition. Last updated for the 2010 valuation pursuant to an experience

study of the period 2005 - 2009

Mortality RP-2000 Mortality Table scaled by 110% for males and 95% for females

### Other Information:

Notes: The funding period will remain open until increases in the employer contribution rate result in the employer contribution rate being equal to the actuarially determined contribution, at which point the funding period will be closed. There were no benefit changes during the year.

Notes: All post-retirement cost-of living adjustments are non-compounding and are based on 3% of the original benefit for all persons receiving a pension or survivor benefit as of January 1 of the year in which the increase is made, provided the participant was an employee on or before 12/31/2004. Effective 1/1/2005, cost-of living adjustments are increased annually by 2%, not compounded, for all persons receiving a benefit, provided the participant was an employee on or after this date. Retirees who received a 3% cost-of-living adjustment who are rehired after 12/31/2004 receive a 3% cost-of-living adjustment on the subsequent benefit. Individuals participating in Group D do not have a cost-of-living provision.



### SCHEDULE OF INVESTMENT RETURNS (UNAUDITED) (SCHEDULE 4)

FY Ending June 30,	Annual Return <sup>1</sup>
2015	3.47%
2014	16.42%

<sup>1.</sup> Annual money-weighted rate of return, net of investment fees.

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.



# SCHEDULE OF FUNDING PROGRESS FOR OPEB AND NOTES TO REQUIRED SCHEDULE (UNAUDITED) (SCHEDULE 5)

UAAL as an Actuarial Valuation Payroll Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll <sup>1</sup> (c)	Percentage of Covered Payroll ((b-a)/c)
June 30, 2015	\$ 0	5,167,086	5,167,086	0%	2,608,493	198.1%
<b>J</b> une 30, 2012	\$ 0	4,424,447	4,424,447	0%	2,251,862	196.5%
<b>J</b> une 30, 2010	\$ 0	3,594,835	3,594,835	0%	2,062,917	174.3%

<sup>1.</sup> With the adoption of GASB Statement No. 67, GASB changed the definition of Covered Payroll to be total gross compensation. The Covered Payroll for fiscal year 2014 and later uses this new definition

The information presented in this schedule was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	June 30, 2015
Actuarial cost method	Projected unit credit
Amortization method	Level percent of payroll
Amortization period	30-Year period, open
Asset valuation method	Market value of assets
Actuarial assumptions:	
Investment rate of return	4.5%, net of expenses
Salary increases	Graded rates based on years of service
Payroll growth factor	3.0% per year
General inflation rate	3.0% per year
Health care inflation rate	Starting at 7.25% in 2016 and decreasing by $\frac{1}{4}$ %
	each year to 4.5% by 2027

See accompanying independent auditors' report.



### **INVESTMENT SUMMARY (SCHEDULE 6)**

June 30, 2015 June 30, 2014 Unrealized Unrealized Appreciation Appreciation Cost Fair Value (Depreciation) Cost Fair Value (Depreciation) Fixed income: Government \$ 86,589,861 85,622,635 83,699,960 securities (967,226)83,254,790 445,170 Corporate bonds 225,675,634 225,280,044 (395,590)211,070,075 223,848,665 12,778,590 Total fixed income 312,265,495 310,902,679 (1,362,816)294,324,865 307,548,625 13,223,760 Short-term investment funds 78,699,020 78,699,020 48,569,270 48,569,270 Capital stocks 679,776,933 768,810,623 89,033,690 706,939,312 866,082,050 159,142,738 Commingled 337,791,953 56,181,524 funds 393,973,477 321,077,468 382,671,667 61,594,199 Real assets 292,806,595 239,169,712 (53,636,883)256,742,443 207,977,789 (48,764,654)**Alternative** investments 563,005,794 675,784,017 651,778,839 81,135,486 112,778,223 570,643,353 Total investments \$ 2,264,345,790 2,467,339,528 202,993,738 2,198,296,711 2,464,628,240 266,331,529

See accompanying independent auditors' report.



# INVESTMENT SERVICES, PROFESSIONAL SERVICES, AND ADMINISTRATION EXPENSES (SCHEDULE 7) YEARS ENDED JUNE 30, 2015 AND 2014

	2015	2014
Investment services:		
Custodial services	\$ 365,105	363,499
Money management services	6,337,647	6,669,758
Consulting services	834,000	834,000
Legal services	64,227	81,421
Investment research expense	41,189	70,315
Investment personnel costs	668,522	525,810
Other investment expenses	72,946	40,051
Total investment expenses	8,383,636	8,584,854
Professional services:		
Actuarial services	165,080	79,634
Auditing and professional services	55,700	56,965
Legal services	226,639	104,962
Other professional services	374,891	355,370
Total professional services	822,310	596,931
Administration expenses:		
Office costs	577,288	570,737
Insurance costs	152,891	149,092
Costs of staff and benefits	4,381,977	4,078,055
Costs of equipment and supplies	772,713	772,809
Depreciation and amortization	164,483	97,686
Costs of continuing education	135,760	149,358
Total administration expenses	\$ 6,185,112	5,817,737

See accompanying independent auditors' report.



# SUMMARY OF COSTS OF INVESTMENT AND PROFESSIONAL SERVICES (SCHEDULE 8) YEAR ENDED JUNE 30, 2015 AND 2014

Service Provider	Service Provided	2015	2014
nvestment services:			
Ariel Investments	Money management	113,889	
Baring Asset Management	Money management	295,054	358,111
BlackRock (formerly Barclays)	Money management	173,138	186,220
DDJ Capital Management, LLC	Money management	678,809	729,297
DePrince, Race and Zollo, Inc.	Money management	542,840	658,222
Earnest Partners, LLC	Money management	657,117	681,646
Enhanced Investment (INTECH)	Money management	181,647	187,958
Global Forest Partners, LP/UBS Timber Investors	Money management	57,336	56,710
Loomis, Sayles and Company, LP	Money management	487,244	528,588
Neumeier Investment Counsel, LLC	Money management	477,498	491,495
Oakbrook	Money management	110,802	150,918
OFI Institutional	Money management	505,477	567,432
Panagora	Money management	172,033	214,629
Piedmont Investment Advisors	Money management	-	24,440
Profit Investment Management	Money management	266,329	154,054
Pugh Capital Management	Money management	111,837	96,72
Smith Graham & Company	Money management	332,912	308,123
Thomas White	Money management	401,123	496,309
T. Rowe Price Associates	Money management	-	58,67
Tortoise Capital Advisors	Money management	669,584	539,849
UBS Global Asset (formerly Brinson Part)	Money management	43,708	126,30
State Street Global Advisors	Money management	59,272	54,05
State Street Bank and Trust Company	Custodial services	365,105	363,499
Willshire Associates, Incorporated	Consulting services	284,000	284,000
Cliffwater LLC	Consulting services	550,000	550,000
Baker Botts LLP	Legal services	19,563	
Locke Lord LLP	Legal services	44,664	81,42
Naviant	Other Investment exp	600	
Total investment services		7,601,581	7,948,678
ofessional services:			
Gabriel, Roeder, Smith & Co.	Actuarial services	100,080	79,63
Segal Consulting	Actuarial services	65,000	
Doeren Mayhew CPAs and Advisors	Auditing and prof. services	3,000	56,96
McConnell & Jones, LLP	Auditing and prof. services	42,225	
VR Election Services	Auditing and prof. services	10,475	
Baker Botts LLP	Legal services	224,249	96,56
Jackson Walker LLP	Legal services	1,814	3,82
Locke Lord LLP	Legal services	576	570
Harris Law Firm	Prof. and legal services	30,000	27,50
HillCo Partners, LLC	Prof. and legal services	102,000	101,813
Champion Capital Research, Inc.	Professional services	-	3,39
Leadership Consulting Group, Inc.	Professional services	7,470	4,658
Locke Lord LLP	Professional services	163,446	174,000
LT Communications	Professional services	48,000	48,000
Pearl Meyers & Partners	Professional services	14,925	,
VR Election Services	Professional services	9,050	
Total professional services		822,310	596,93
Total costs of investment and professional servi	ces	\$ 8,423,889	\$ 8,545,609
e accompanying independent auditors' report.		. , .==,300	, , , , , , , , , , , ,





The Board of Trustees ("Board") of the Houston Municipal Employees Pension System (the "System") has adopted an Investment Policy Statement ("IPS") as a framework for the investment of the System's assets. The authority to amend the IPS rests solely with the Board. The following provides an outline of the IPS.

### **PURPOSE**

The IPS assists the Board in acting as fiduciaries for the System by: a) specifying the Board's expectations, objectives and guidelines for the System, b) clarifying the responsibilities of the Board, the staff, the consultants and vendors, c) setting forth an investment structure for managing the portfolio, d) encouraging effective communications, and e) establishing criteria to select, remove, monitor and evaluate performance of money managers and vendors on a regular basis.

### **INVESTMENT OBJECTIVES**

The investment objective of the total portfolio is to produce an annualized investment return over the long term that exceeds the actuarial interest rate approved by the Board. This will enable the Board to achieve its overall objective of providing adequate retirement benefits to the members of the System.

The performance of the System's investments is compared with the policy portfolio. The policy portfolio is comprised of market indices, which are consistent with the overall investment policy. The policy portfolio reflects a passive implementation of the investment policy. This policy portfolio was last updated on July 1, 2013.

Comparisons of total fund performance are also made with a universe of public pension funds implementing generally comparable investment policies. The public pension fund universe used for comparative purposes is the TUCS Master Trusts – Public Universe.

### **INVESTMENT STRATEGIES**

### Asset Allocation

The System's investment allocation provides an efficient allocation of assets that is designed to achieve overall portfolio risk and return objectives. The Board periodically undertakes strategic studies to address the appropriateness of asset classes to be

considered for inclusion in the asset allocation, and to define the targeted percentage to each asset class to achieve the desired level of diversification.

During fiscal year 2013, the Board conducted a study to review asset class risk-return assumptions and correlations which resulted in several changes to the System's asset allocation targets. These changes were intended to reduce the volatility of the System's investment returns while providing adequate expected return. First, the target exposure to Global Equities was reduced from 40% to 35%, and U.S and non-U.S. equities were combined to allow the System to respond to changes in the composition of the global equity market more efficiently. Second, the target exposure to Fixed Income was reduced from 20% to 15% in response to the low interest rate environment. The Real Estate asset class target was decreased from 12% to 10%, while the Private Equity target was decreased from 18% to 17.5%. The target exposure of the Inflation Linked asset class increased from 5% to 12.5%, while Absolute Return increased from 5% to 10%.

This new asset allocation became effective July 1, 2013. The System intends to maintain a portfolio mix which is consistent with the new asset allocation targets. The target and actual allocations are included in table 1.

### Diversification

The System invests in six major asset classes (Equities, Fixed Income, Real Estate, Private Equity, Inflation-Linked, and Absolute Return) and engages the services of numerous professional investment managers (in both public markets and private partnerships) with demonstrated skills and expertise in managing portfolios within each asset class as a method to maximize overall fund diversification. The managers retained are expected to utilize varied investment approaches that, when combined, will exhibit characteristics that are similar to the asset class proxy utilized in the strategic asset allocation plan. As of June 30, 2015, the System had retained the services of 83 investment management firms, several of which manage multiple mandates. Cash inflows and outflows are directed, within the targeted asset class, to the various managers so that actual characteristics of the portfolio will be consistent with the strategic plan. No investment manager is





permitted to have more than 20% of the fair value of the System's assets.

### Rebalancing

The IPS requires a periodic adjustment, or rebalancing, of assets be made to ensure conformance with policy target levels. Such rebalancing is necessary to reflect sizable cash flows and performance imbalances among the various asset classes that may occur over time. During fiscal year 2015, Staff directed the rebalancing of assets within the strategic asset allocation targets in response to market dynamics and the System's liquidity needs.

# Investment Manager Guidelines – Public Markets

Investment managers are subject to guidelines and objectives incorporated in the investment management agreements entered into by the Board and the respective investment managers. Investment managers are expected to perform their fiduciary duties as prudent people skilled in such matters and, further, are expected to comply with all applicable State and Federal statutes governing the investment of retirement funds. Within the context of the guidelines, investment managers have full discretion with respect to the purchase and sale of individual securities and portfolio weightings. Portfolios are to be managed in a manner similar to other portfolios within an organization with similar guidelines and performance objectives.

The Board requires that all investment managers seek best execution for all trades ordered on behalf of the System. Equity managers are encouraged to direct some of their brokerage activity to an approved list of brokers if such trades reduce total transaction costs and do not affect best execution. Fixed income managers are encouraged to direct primary trading activity wherever there is an opportunity to recapture a portion of the syndication costs for the System.

### Manager Evaluation

Managers of portfolios are evaluated quarterly against predetermined benchmarks such as an appropriate market index or a comparable peer group. All public market managers are required to provide written reports to HMEPS of their activities and performance. In addition, System personnel and professional consultants engaged by the Board

monitor managers' performance, material changes in the managers' organization and conformity with their guidelines and objectives.

Managers who fail to meet expectations will be placed on probation (for public market managers) or watchlist (for private market managers). Staff and the consultant will increase monitoring of these managers, evaluating factors such as changes in the assets in the portfolio, changes in investment style, peer universe ranking and others.

### Investment Performance Evaluation

The Board reviews System investment performance on a periodic basis to evaluate conformity to the goals and objectives established in the strategic plan. The Board recognizes that financial markets from time to time may not support attainment of those goals and objectives. During such times, progress toward conformity is evaluated by comparing the System's performance to the policy index and to a peer group comparable in class and weight to the styles in the System's investment portfolio. Investment results are calculated using a time-weighted rate of return based on the market rate of return.

### **Proxy Voting**

The Board authorizes each investment manager to vote all proxies relating to shares of securities under management, and requires each investment manager to provide a written proxy voting policy statement. Each manager is expected to promptly vote all proxies and related actions in a manner consistent with the long-term interests of the System and its participants and beneficiaries. Each investment manager is required to keep detailed records of all voting of proxies and related actions and to comply with all related regulatory obligations. The System's management staff periodically reviews each investment manager's policies and actions in respect to proxy voting.

### **INVESTMENT RESULTS**

### Long-Term Results

The 10-year period ended June 30, 2015 encompasses the 2008 financial crisis and has produced volatile returns, both for the markets as a whole, and also for the System. The System generated double digit positive returns in six of the past ten fiscal years, and



### DISCUSSION OF INVESTMENT POLICIES AND ACTIVITIES

outperformed its peer group in six of those ten years. Due to the diversification of assets, the System's 5-year annualized return is 10.8%, in excess of the actuarial assumed rate of return of 8.5%. The 10-year return stands at 8.3%.

As shown in the investment results table, HMEPS' total fund return exceeds its policy portfolio over the last ten years. In addition, HMEPS' total fund performance compares very favorably to the median public fund, as represented by the TUCS Master Trusts – Public Universe. Over the ten-year period, HMEPS is in the top 1% of funds in the TUCS Master Trusts – Public Universe.

The consistent long-term above-benchmark performance is best illustrated by the growth of \$1,000 invested in HMEPS' total fund, the policy portfolio and median public fund during the past 10 years. The ending points indicate that \$1,000 invested in HMEPS' total fund would have grown to \$2,212, while the same \$1,000 would have grown to \$2,106 and \$1,872 respectively in the policy portfolio and the median public fund, as shown in table 2.

### Fiscal Year 2015 Results

For the fiscal year ended June 30, 2015, the System returned 3.4%. This rate of return lagged the System's policy benchmark return of 5.0%, but matched the return of the median fund in the TUCS Master Trusts – Public Universe.

The Investment Section was written by Chief Investment Officer Gregory Brunt, CFA, and Financial Analyst Jumana Aumir.

### SCHEDULE OF ASSET ALLOCATION

TABLE 1

(Calculated based on a time-weighted rate of return based on the market rate of return)

	Alloca	tion	Investment Performance				
Asset Class	Target	Actual	1 Yr.	3 Yrs.	5 Yrs.	10 Yrs.	
Global Equity <sup>1</sup>	35.0 %	38.6 %	2.2 %	n/a	n/a	n/a	
MSCI All Country World IMI			8.0	n/a	n/a	n/a	
MSCI All Country World Min Volatility			6.6	n/a	n/a	n/a	
Fixed Income	15.0	16.9	1.1	5.4	6.4	6.2	
Barclays Aggregate Index			1.9	1.8	3.4	4.4	
Merrill Lynch High Yield Master II Index			-0.6	6.8	8.4	7.8	
Private Equity <sup>2</sup>	17.5	17.1	10.4	10.8	13.1	11.4	
<b>S&amp;P</b> 500 Index + 3%			10.4	20.3	20.3	10.9	
Real Estate <sup>3</sup>	10.0	10.8	10.9	10.8	9.4	5.1	
NCREIF Property Index			13.0	11.6	12.7	8.2	
Inflation-Linked <sup>4</sup>	12.5	6.5	-9.1	8.4	6.8	n/a	
CPI + 4% <sup>5</sup>			4.1	5.3	6.0	n/a	
Absolute Return <sup>6</sup>	10.0	8.6	2.7	6.9	6.6	n/a	
LIBOR + 4% <sup>7</sup>			4.3	4.3	4.5	n/a	
Cash	-	1.5					
Total Portfolio	100.0	100.0	3.4	11.0	10.8	8.3	
Policy Benchmark <sup>8</sup>			5.0	11.4	11.9	7.7	
Median of Wilshire Public Fund Universe/	TUCS		3.4	10.7	10.9	6.8	

- 1. The Global Equity composite was created on July 1, 2013. It combined the previously separate Domestic Equity and Global Equity composites.
- 2. Beginning October 1, 2008, Private Equity is separate from Absolute Return. Prior returns were combined in the Private Equity composite.
- 3. Beginning October 1, 2008, Real Estate is separate from Inflation-Linked. Prior returns were combined in the Real Estate composite.
- 4. The Inflation-Linked composite was created on October 1, 2008. Prior returns are included in the Real Estate composite.
- 5. Prior to April 1, 2011, the benchmark for Inflation-Linked was CPI + 5%. Longer term benchmark returns reflect a blend of both benchmarks.
- 6. The Absolute Return composite was created on October 1, 2008. Prior returns are included in the Private Equity composite.
- 7. Prior to April 1, 2011, the benchmark for Absolute Return was LIBOR + 5%. Longer term benchmark returns reflect a blend of both benchmarks.
- 8. For fiscal year 2014, the Policy Benchmark was 26.25% MSCI ACWI IMI (Global Equity), 8.75% MSCI ACWI Min Vol (Low Volatility Global Equity), 7.5% Barclays Aggregate Index (Investment Grade Fixed Income), 7.5% Merrill Lynch High Yield Master Trust (High Yield Fixed Income), 10% NCREIF Property Index (Real Estate), 17.5% S&P 500+3 (Private Equity), 10% LIBOR +4 (Absolute Return), 12.5% CPI+4 (Inflation Linked Assets)





### SCHEDULE OF TOP EQUITY INVESTMENTS AS OF JUNE 30, 2015\*

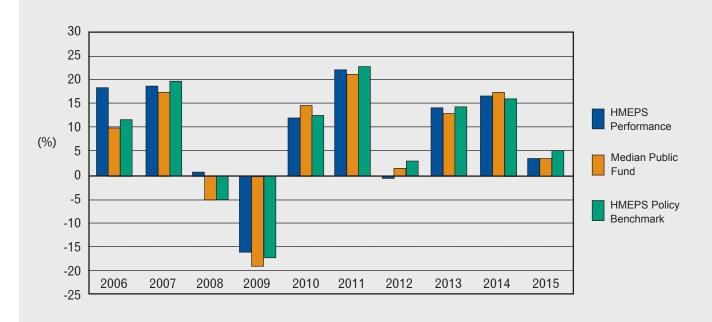
Name of Investment		Fair Value of Investment	Percent of Portfolio
BlackRock MSCI ACWI MIC Index	- \$	234,492,798	9.5%
State Street Global Advisors REIT Index		41,727,498	1.7%
RREEF America REIT II		31,636,291	1.3%
BlackRock ACWI ex-US Index		15,749,370	0.6%
Blackrock Equity Index Fund A		11,603,569	0.5%
Energy Transfer Equity		9,291,110	0.4%
Magellan Midstream Partners		8,963,367	0.4%
Enterprise Product Partners		8,893,231	0.4%
Plains All American Pipeline		8,090,252	0.3%
Apple Inc.		7,283,179	0.3%

### SCHEDULE OF TOP DEBT INVESTMENTS AS OF JUNE 30, 2015\*

Name of Investment	Fair Value of Investment	Percent of Portfolio
BlackRock U.S. Debt Index (Barclays Aggregate)	77,840,020	2.1%
GMO Emerging Country Debt	15,836,373	0.6%
Alliance Bernstein Emerging Market	15,375,150	0.6%
US Treasury N/B 03/18 0.75	6,874,897	0.3%
US Treasury N/B 02/21 2	5,316,956	0.2%
US Treasury N/B 11/18 1.375	5,255,312	0.2%
US Foods Inc Company Guar 06/19 8.5	4,117,875	0.2%
Foresight Energy Company Guar 144A 08/21 7.875	4,054,350	0.2%
US Treasury N/B 03/16 0.375	4,044,121	0.2%
HRG Group Inc. SR Unsecured 01/22 7.75	3,935,100	0.1%

<sup>\*</sup> A complete list of the System's holdings is available at the System's office by appointment.

### PERFORMANCE BY FISCAL YEAR LAST TEN YEARS





# COMPARISON OF INVESTMENT RETURNS - YEARS ENDED JUNE 30

(Calculated based on a time-weighted rate of return based on the market rate of return)

					•							٠ ١		
LIBOR	n/a	n/a	n/a	n/a	0.34%	0.33%	0.46%	0.31%	0.24%	0.25%	0.27%	0.31%	n/a	
HMEPS Absolute Return	n/a	n/a	n/a	n/a	23.39%	13.94%	%98.0-	10.87%	7.28%	2.65%	6.88%	6.64%	n/a	
Consumer Price Index	n/a	n/a	n/a	n/a	1.05%	3.56%	1.66%	1.75%	2.07%	0.12%	1.31%	1.83%	n/a	
HMEPS Inflation- Linked	n/a	n/a	n/a	n/a	21.52%	39.72%	-21.96%	14.52%	22.33%	-9.14%	8.38%	6.78%	n/a	
NCREIF Property Index	18.67%	17.24%	9.20%	-19.57%	-1.48%	16.73%	12.00%	10.73%	11.21%	12.96%	11.63%	12.71%	8.16%	
HMEPS Real Estate	36.39%	20.09%	18.19%	-40.37%	-9.52%	10.92%	3.78%	12.80%	9.11%	10.88%	10.92%	9.45%	2.08%	
S&P 500 Index	8.63%	20.59%	-13.12%	-26.22%	14.43%	30.68%	5.44%	20.59%	24.61%	7.42%	17.31%	17.34%	7.89%	
HMEPS Private Equity	22.46%	25.38%	11.87%	-20.93%	16.82%	22.54%	11.00%	7.85%	14.31%	10.36%	10.81%	13.10%	11.37%	
Merrill Lynch High Yield Master II	4.70%	11.73%	-5.09%	-3.53%	27.53%	15.40%	6.51%	9.57%	11.80%	-0.55%	%08'9	8.41%	7.75%	
Barclays Capital Aggregate Bond Index	-0.81%	6.11%	7.13%	%90.9	9.50%	3.90%	7.48%	%69'0-	4.37%	1.86%	1.83%	3.35%	4.44%	
HMEPS Fixed Income	2.61%	9.57%	1.96%	0.36%	17.00%	9.33%	6.31%	2.99%	9.25%	1.13%	2.39%	6.35%	6.24%	
MSCI ACWI Min Vol	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13.84%	6.59%	n/a	n/a	n/a	
MSCI ACWI IMI	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	20.92%	0.81%	n/a	n/a	n/a	
HMEPS Global Equity	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21.92%	2.22%	n/a	n/a	n/a	
Median of Wilshire Public Fund Univ./	10.85%	17.63%	-4.95%	-19.19%	14.71%	21.19%	1.25%	12.27%	16.83%	3.38%	10.74%	10.88%	%62.9	
HMEPS Policy Portfolio	13.09%	20.00%	-4.88%	-17.55%	13.00%	22.89%	3.23%	13.99%	15.61%	4.96%	11.39%	11.87%	7.70%	
HMEPS Total Fund	18.11%	18.64%	0.47%	-16.02%	12.24%	22.17%	-0.14%	13.58%	16.39%	3.38%	10.97%	10.76%	8.27%	
Period Ending 06-30	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	3 Yrs.	5 Yrs.	10 Yrs.	



### SCHEDULE OF FEES AND COMMISSIONS PAID IN FISCAL YEAR 2015

Broker Name	Number of Shares	Commissions (\$)	Cents/Share
Abel Noser Corp.	4,812	160,400	3.00
Barclays Capital	6,223	359,734	1.73
BB&T Securities	5,328	133,210	4.00
BNP Paribas Securities Services	2,397	86,710	2.76
BNY Convergex LJR	140,150	9,248,654	1.52
Cantor Fitzgerald & Co.	4,155	126,703	3.28
Capital Institutional Svcs Inc. Equities	31,172	24,088,218	0.13
Charles Schwab & Co.	11,194	707,900	1.58
Citigroup Global Markets	12,458	999,120	1.25
CJS Securities	2,345	58,625	4.00
Convergex Execution Solutions	13,417	373,768	3.59
Craig - Hallum	5,728	143,200	4.00
Credit Lyonnais Securities (Asia)	3,285	717,250	0.46
Credit Suisse Securities (USA)	4,901	776,331	0.63
Deutsche Bank Securities	8,218	508,866	1.61
Exane S.A.	2,198	30,600	7.18
Fig Partners	15,158	378,955	4.00
Friedman Billings & Ramsey	4,237	105,925	4.00
G Trade Services Ltd	32,582	· ·	
Goldman Sachs & Co	the state of the s	5,317,175	0.61
	2,587	194,007	1.33
Guzman & Co	3,626	217,258	1.67
ICAP Do Brasil	3,528	324,700	1.09
Instinet	28,271	1,001,340	2.82
Investment Technology Group	5,579	562,209	0.99
Jefferies & Co	7,776	610,635	1.27
Jones Trading Institutional Services	49,725	1,711,824	2.90
J.P. Morgan Securities	4,293	896,629	0.48
Keybanc Capital Markets	24,176	605,298	3.99
Korea Investment and Securities	3,478	63,200	5.50
Liquidnet	2,319	120,252	1.93
Merrill Lynch & Co	12,775	3,660,853	0.35
Morgan Stanley Co	21,430	1,181,897	1.81
Robert W. Baird Co	3,911	97,784	4.00
Rosenblatt Securities	2,891	106,613	2.71
Roth Capital Partners	2,815	70,375	4.00
Sanford C. Bernstein	10,678	530,025	2.01
Seaport Group Securities	2,212	55,300	4.00
SG Americas Securities	4,423	157,063	2.82
Sidoti & Co	7,665	191,632	4.00
State Street Global Markets	2,025	68,197	2.97
Sterne Agee & Leach	2,921	82,919	3.52
Stifel Nicolaus	13,986	366,740	3.81
UBS Ltd	43,567	1,515,690	2.87
Weeden & Co	2,471	126,373	1.96
Wells Fargo Securities	3,818	252,546	1.51
			3.07
Williams Capital Group Other	2,338	76,169 6.481 505	
	46,279	6,481,525	0.71
Grand Total	631,524	65,650,396	-

Average Cents/Share 0.96



Public Market Investments	Market Value	Fees	Basis Points	Percentage
Global Equity	\$ 949,787,329	3,871,277	41	38.58
Fixed Income	414,960,970	1,636,472	39	16.85
Inflation Linked	99,799,132	669,584	67	4.05
Other Public Market	41,727,498	59,272	14	1.69
Non-Public Market Investments	955,676,556			38.82
Total Fund	\$ 2,461,951,485			100.00
<u>Custodian Bank</u>				
State Street Bank & Trust Company	2,461,951,485	365,105	1	
Consultant Services				
Wilshire Associates, Inc.	2,461,951,485	284,000	1	
Cliffwater LLC	955,676,556	550,000	6	
Legal Services	2,461,951,485	64,227	0	
Other Investment Expenses	2,461,951,485	883,702	4	

Total fund includes the fair value of investments as shown in the financial statements, plus cash and investment related receivables, less investment related payables.







### ACTUARY'S LETTER TO THE BOARD OF TRUSTEES

Gabriel Roeder Smith & Company January 28, 2015

Board of Trustees Houston Municipal Employees Pension System 1201 Louisiana, Suite 900 Houston, TX 77002

### **Dear Members of the Board:**

This report describes the current actuarial condition of the Houston Municipal Employees Pension System (HMEPS), determines the calculated employer contribution rate, and analyzes changes in this contribution rate. Valuations are prepared annually, as of July 1, the first day of the HMEPS plan year.

Under the HMEPS statute, the employer contribution rate is determined actuarially, based on the Board's funding policy and HMEPS' 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 Amended and Restated Meet & Confer Agreement (ARM&CA) between the Board and the City of Houston, the City will contribute the greater of the 2014 fiscal year contribution increased by \$10 million or 25.36% of payroll in fiscal year 2015. Contributions in future fiscal years will increase by the greater of the prior fiscal year's contribution amount increased by \$10 million or 2% of payroll over the prior year's rate until such time that the City's contribution rate equals the actuarially determined contribution rate. As part of the agreement the Board's funding policy has been modified to use an open 30-year rolling amortization period until such time that the City's actual contribution rate is equal to the actuarially determined contribution rate, at which point the funding period will be closed.

The employer contribution amounts for FY 2014 and FY 2015 were not set by actuarial valuations. Therefore, the calculated contribution rates from those valuations are not being contributed. Instead, employer contributions of 23.36% of payroll for FY 2014 were made and the greater of the 2014 fiscal year contribution increased by \$10 million or 25.36% of payroll for FY 2015 are being made under the terms of the ARM&CA.

Under the terms of the ARM&CA and based on an estimated payroll of \$561.4 million, the estimated City contribution for FY 2015 is \$142.4 million (25.36% of pay) and based on an estimated payroll of \$578.3 million, the estimated City contribution for FY 2016 is \$158.2 million (27.36% of pay).

### Financing objectives and funding policy

The amortization period is set by statute, and was modified under the ARM&CA. The contribution rate and liabilities are computed using the Entry Age Normal actuarial cost method. The employer contribution rate is the sum of two pieces: the employer normal cost rate and the amortization rate. Both the normal cost rate and the amortization rate are determined as a level percentage of pay. The amortization rate is the amount required to amortize the unfunded actuarial accrued liability over an open 30-year period. The amortization rate is adjusted for the one-year deferral in contribution rates. The amortization period will remain open until the actual employer contribution rate is equal to the actuarially determined employer contribution rate.





### 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 58.1%. This is an increase from the 57.7% funded ratio from the prior year's valuation.

The calculated employer contribution rate for FY 2016 is 27.38%. This rate is less than the 27.50% rated calculated in the 2013 valuation. This decrease is mostly due to the recognition of this year's investment performance and the resetting of the amortization period from 29 to 30, which helped to offset increases from the impact of the continued recognition of the net deferred investment losses, projected payroll growing slower than expected, and the City contributing less than the actuarially determined rate. Please see page 69 for a detailed analysis of the change in the calculated employer contribution rate from the prior year to this year.

Like most large public pension plans, HMEPS was significantly impacted by the substantial decline in the investment markets during FY 2009. The 2014 return was very good and has resulted in almost all of the deferred losses being recognized in this valuation, with only \$26 million remaining in this valuation.

### 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 on page 68. This past fiscal year the System had a total liability gain of approximately \$9.9 million. Relative to the total liabilities of the System we do not consider this liability gain significant.

### **Benefit Provisions**

The benefit provisions reflected in this valuation are those which were in effect on July 1, 2014. The Fourth Amendment to the Meet and Confer Agreement between the City and the Board changed the benefit provisions substantially, effective January 1, 2008. Under the Fourth Amendment, the benefits for employees hired prior to January 1, 2008 were not modified, but the benefits for employees newly

hired on or after January 1, 2008 were modified substantially, including the elimination of member contributions. There have been no changes in the benefit provisions since the prior valuation date that have a material financial impact on HMEPS.

The benefit provisions are summarized starting on page 85.

### **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 effective with the July 1, 2010 actuarial valuation based on recommendations from an Experience Study conducted by GRS in the spring of 2010. The next experience study is scheduled to be performed in the spring of 2015.

The results of the actuarial valuation are dependent on 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 are intended to provide information for rational decision making.

All assumptions and methods are described on page 81-84.

### **GASB 67**

The System was required to begin complying with Governmental Accounting Standards Board Statement No. 67 with the fiscal year ending June 30, 2014. That information was provided to HMEPS under separate cover and is not contained in this report.

### Data

Member data for retired, active and inactive members was supplied as of July 1, 2014 by the HMEPS 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.



### ACTUARY'S LETTER TO THE BOARD OF TRUSTEES

Asset information as of July 1, 2014 was taken from the Comprehensive Annual Financial Report (CAFR) for the Year Ended June 30, 2014.

### Certification

We were asked to determine if an unanticipated actuarial cost occurred in the administration of the Deferred Retirement Option Plan (DROP). It is our opinion that the administration of the DROP had no material unanticipated actuarial costs during the prior fiscal year.

The 22 tables contained in this actuarial section of the HMEPS CAFR were prepared by Gabriel, Roeder, Smith & Company. The trend data schedules shown in the Notes section of the HMEPS CAFR are based on our valuation reports, but were prepared by HMEPS staff. We certify that the information presented herein is accurate and fairly portrays the actuarial position of HMEPS as of July 1, 2014.

All of our work conforms with generally accepted actuarial principles and practices, and 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, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board. The undersigned are independent actuaries and consultants. Mr. Newton is an Enrolled Actuary and also a Member of the American Academy of Actuaries, and meets the Qualification Standards of the American Academy of Actuaries. Both of the undersigned are experienced in performing valuations for large public retirement systems.

Sincerely,

Gabriel, Roeder, Smith & Company

Joe Hente

Joseph P. Newton, FSA, EA, MAAA

Ewis Ward

Senior Consultant

Lewis Ward Consultant





Item		July 1, 2014	_	July 1, 2013
Membership				
Number of:				
Active members		11,949		11,781
Retirees and beneficiaries		9,685		9,427
Inactive members		5,532		5,555
Total	-	27,166	_	26,763
Covered payroll (annualized)	\$	568,992	\$	549,971
Calculated Contribution rates				
Employer		27.38 %		27.50
Assets				
Market value	\$	2,464,439	\$	2,196,615
Actuarial value		2,490,521		2,382,585
Estimation of return on market value		16.0 %		13.0
Estimation of return on actuarial value		7.9 %		5.4
Employer contribution	\$	128,274	\$	111,859
Member contribution	\$	16,580	\$	17,041
Ratio of actuarial value to market value		101.1 %		108.5
External cash flow as % of market value assets		-3.4 %		-4.2
Actuarial Information				
Employer normal cost %		5.85 %		5.86
Unfunded actuarial accrued liability (UAAL)	\$	1,798,058	\$	1,746,998
Amortization rate		21.53 %		21.64
Funding period		30.0 years		30.0 years
GASB funded ratio		58.1 %		57.7

Note: Dollar amounts in \$000, unless otherwise noted

### Projected employer contribution based on Meet and Confer Agreement

Fiscal year ending June 30,	 2016	 2015
1. Projected payroll	\$ 578,265,397	\$ 561,422,715
2. Meet and Confer Contribution Rate	27.36 %	25.36 %
3. Projected employer contribution (1 x 2)*	\$ 158,213,413	\$ 142,376,801

<sup>\*</sup>Employer contribution is at least equal to the prior year dollar contribution plus \$10 million.

Note: For fiscal year 2014, actual payroll was \$541.2 million. The Meet and Confer contribution rate was 23.36% and the actual employer contribution to the System was \$128.3 million.



### STATEMENT OF PLAN NET ASSETS

_	Ju	ly 1, 2014
A. ASSETS		(1)
1. Current Assets		
a. Cash and short term investments		
1) Cash on hand	\$	401
2) Short term investments		48,569
b. Accounts Receivable		
1) Sale of investments		12,065
2) Other	_	6,808
c. Total Current Assets	\$	67,843
2. Long Term Investments		
a. US. Government securities	\$	83,700
b. Corporate bonds		223,849
c. Capital stocks		866,082
d. Commingled Funds		382,672
e. LP's, real estate trusts, loans and mortgages	_	859,757
f. Total long term investments	\$	2,416,060
3. Other Assets		
a. Collateral on securities lending	\$	139,504
b. Furniture, fixtures and equipment, net	_	444
c.Total other assets	\$	139,948
4. Total Assets	\$	2,623,851
B. LIABILITIES		
1. Current Liabilities		
a. Amounts due on asset purchases	\$	14,525
b. Accrued liabilities		5,383
c. Collateral on securities lending	_	139,504
2. Total Liabilities		159,412
3. Net Assets Held in Trust	\$	2,464,439
C. TARGET ASSET ALLOCATION FOR CASH & LONG TERM	INVES	STMENTS
1. Cash		0.0%
2. Fixed Income		15.0%
3. Real Estate		10.0%
4. Private Equities		17.5%
5. Global Equities		35.0%
6. Alternative Investments		22.5%
7.Total		100.0%

Note: Dollar amounts in \$000 Columns may not add due to rounding.



### RECONCILIATION OF PLAN NET ASSETS

			_	Year End 30, 2	ing June 2014
1.	Mark	et val	lue of assets at beginning of year	\$	2,196,615
2.	2. Revenue for the year				
	a.	Con	tributions		
		i.	i. Member contributions		16,580
		ii.	Employer contributions (see note)		128,274
		iii.	Total	\$	144,854
	b.	Net	investment income		
		i.	Interest	\$	24,080
		ii.	Dividends		19,523
		iii. Earnings from LP's and real estate trusts			4,996
		Net appreciation (depreciation) iv. on investments			311,189
		V.	Net proceeds from lending securities		590
		vi.	Less investment expenses		(8,585)
		vii.	Other	_	730
	C.	Tota	ıl revenue	\$	497,377
3.	Expe	nditu	res for the year		
	a.	Refu	unds	\$	1,213
	b.	Benefit payments			221,925
	C.	Administrative and miscellaneous expenses			6,415
	d.	Tota	ll expenditures	\$	229,553
4.	Incre	ase i	\$	267,824	
5.	Mark	et val	ue of assets at end of year (Item 1 + Item 4)	\$	2,464,439

### Note: Dollar amounts in \$000

Employer contribution does not include amounts contributed to the replacement benefit plan. Columns may not add due to rounding.



### **DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS**

1.	Actuarial value of assets at beginning of year	\$ July 1, 2014 2,382,585
2.	Net new investments a. Contributions b. Benefits and refunds paid c. Subtotal	\$ 144,854 (223,138) (78,284)
3.	Assumed investment return rate for fiscal year	8.50%
4.	Assumed investment income for fiscal year	\$ 199,261
5.	Expected Actuarial Value at end of year (1+2+4)	\$ 2,503,562
6.	Market value of assets at end of year	\$ 2,464,439
7.	Difference (6 - 5)	\$ (39,123)

8. Development of amounts to be recognized as of July 1, 2014:

Fiscal Year End		Remaining Deferrals of Excess (Shortfall) of Investment Income		Offsetting of Gains/ (Losses)		Net Deferrals Remaining	Years Remaining	Recognized For This Valuation		Remaining After This Valuation
		(1)	(2) (3) = (		(3) = (1) + (2)	(4)	(5) = (3)/(4)		(6) = (3) - (5)	
2010	\$	0	\$	0	\$	0	1	\$ 0	\$	0
2011		(58,192)		58,192		0	2	0		0
2012		(127,778)		88,655		(39,123)	3	(13,041)		(26,082)
2013		0		0		0	4	0		0
2014		146,847		(146,847)		0	5	0		0
Total	\$	(39,123)	\$	0	\$	(39,123)		\$ (13,041)	\$	(26,082)
		9. Final actuaria of year (Item						\$ 2,4	90,5	21
		10. Asset gain (lo	oss	s) for year (It	em	9 - Item 5)		\$ (1	3,04	11)
11. Asset gain (loss) as % of actual actuarial assets (0.52%)						%)				
		12. Ratio of actua	ari	al value to m	nark	et value		1	01.1	1%

Notes: Remaining deferrals in Column (1) for prior years are from last year's report column (6) of Table 10A. The number in the current year is the difference between the remaining deferrals for prior years and the total Excess/(Shortfall) return shown in Item 7. Column 2 is a direct offset of the current year's excess/(shortfall) return against prior years' excess/(shortfall) of the opposite type.



### ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS

			Jυ	ıly 1, 2014
1.	Act	ive members		
	a.	Retirement benefits	\$	1,860,972
	b.	Deferred termination benefits		107,147
	c.	Refunds		13,818
	d.	Death benefits		76,719
	e.	Disability benefits		11,592
	f.	Total	\$	2,070,248
2.	Me	mbers in Pay Status		
	a.	Service retirements	\$	2,100,640
	b.	Disability retirements		37,881
	c.	Beneficiaries		222,079
	d.	Total	\$	2,360,600
4.	Ina	ctive members		
	a.	Vested terminations	\$	173,825
	b.	Nonvested terminations		3,800
	c.	Total	\$	177,625
5.	Tot	al actuarial present value of future benefits	\$	4,608,473

Note: Dollar amounts in \$000



### CALCULATION OF TOTAL ACTUARIAL GAIN OR LOSS

1.	Unfunded actuarial accrued liability (UAAL) as of July 1, 2013	\$ 1,746,998
2.	Employer normal cost for year*	31,717
3.	Employer Contributions during year ending June 30, 2014*	(128,274)
4.	Interest on UAAL for one year	148,495
5.	Interest on Item 2 and Item 3 for one-half year	(4,020)
6.	Expected UAAL as of July 1, 2014 (1+2+3+4+5)	\$ 1,794,916
7.	Actual UAAL as of July 1, 2014	\$ 1,798,058
8.	Actuarial gain/(loss) for the period (6 - 7)	\$ (3,142)
	SOURCE OF GAINS/(LOSSES)	
9.	Asset gain/(loss) (See Table 10)	\$ (13,041)
10.	Assumption changes	0
11.	Changes from Meet & Confer	0
12.	Total liability gain/(loss) for the period	\$ 9,899
13.	Actuarial gain/(loss) for the period	\$ (3,142)

Note: Dollar amounts in \$000

### CHANGE IN CALCULATED CONTRIBUTION RATE SINCE THE PRIOR VALUATION

1.	Calculated Contribution Rate as of July 1, 2013		27.50%
2.	Change in Contribution Rate During Year		
	a. Change in Employer Normal Cost	(0.01%)	
	b. Recognition of prior years' asset losses	0.93%	
	c. Actuarial gain from current year asset performance	(0.76%)	
	d. Actuarial gain from liability sources	(0.14%)	
	e. Impact of City contributing less than actuarially determined rate	0.15%	
	f. Effect of projected payroll growing slower than expected	0.04%	
	g. Effect of resetting amortization period to 30 years	(0.33%)	
	h. Total Change		(0.12%)
3.	Calculated Contribution Rate as of July 1, 2014	27.38%	_

<sup>\*</sup>Employee contributions excluded due to use of replacement life normal cost method for ongoing plan. New members (Group D) do not contribute to the plan.

### NEAR TERM OUTLOOK

Net External Cash Flow	(12)	\$ (99,525)	(107,834)	(129,755)	(148,465)	(168,996)	(189,662)	(173,369)	(185,655)	(197,006)	(206,808)	(214,124)
Benefit Projected Employer Employee Payments Net Externa Compensation Contributions Contributions and Refunds Cash Flow	(11)	\$ 258,674	281,780	305,463	329,857	354,796	380,069	368,822	386,342	403,152	418,676	432,021
Employee s Contributions	(10)	\$ 16,772	15,732	14,777	13,872	12,996	12,145	11,310	10,484	9,670	8,883	8,120
Employer n Contributions	(6)	\$ 142,377	158,213	160,931	167,520	172,804	178,263	184,142	190,203	196,476	202,984	209,778
Projected Compensatior	(8)	\$ 561,423	578,265	591,146	607,687	625,205	643,606	663,148	683,522	704,742	726,900	750,237
For Fiscal Year Ending June 30,	(7)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Market Value of Fund (in 000s)	(9)	3 2,464,439	2,570,248	2,676,395	2,768,731	2,849,427	2,915,597	2,965,865	3,037,376	3,102,169	3,160,645	3,213,881
Funding Period (Years) <sup>1</sup>	(5)	30.0	30.0	29.0	28.0	27.0	26.0	25.0	24.0	23.0	22.0	21.0
Calculated Contribution Rate	(4)	27.38%	27.22%	27.57%	27.64%	27.70%	27.77%	27.83%	27.88%	27.92%	27.96%	27.97%
Funded Ratio	(3)	58.1%	58.3%	58.7%	59.2%	29.5%	29.8%	29.9%	60.2%	%9.09	%2.09	61.0%
Unfunded aluation Actuarial as of Accrued Liability Funded Contribution July 1, (UAAL, in 000s) Ratio Rate	(2)	1,798,061	1,846,089	1,884,127	1,911,897	1,937,651	1,962,671	1,986,372	2,008,533	2,027,844	2,043,892	2,056,272
Valuation as of A July 1,	(1)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024

These projections are based on the Amended and Restated Meet and Confer agreement assuming that the benefit provisions that went into effect January 1, 2008 remain in effect throughout the projection. Beginning in FY2012, the employer contributions shown above are based on a negotiated amount of \$98.5 million in FY2012 followed by increases in the following fiscal years equal to the greater of the prior year's dollar contribution increased by \$10 million or the set contribution rate of 19.36% increased by 2% per year over the previous year's contribution rate. This method the valuation of the year prior (i.e. the FY 2015 rate is set by the July 1, 2013 valuation). Any changes to future accruals or failure to contribute the of determining the contribution rate remains in place until the contribution rate reaches the actuarially determined contribution rate determined by calculated rate will change the results of this projection.

Note: Dollar amounts in \$000



<sup>1.</sup> The agreement between the City and HMEPS includes an open 30 year amortization period until the actual City contribution rate reaches the actuarially determined contribution rate.

### ANALYSIS OF NORMAL COST

			July 1, 2014	July 1, 2013
			(1)	(2)
1.	Gro	oss normal cost rate		
	a.	Retirement benefits	4.67%	4.68%
	b.	Deferred termination benefits	0.72%	0.72%
	c.	Refunds*	0.00%	0.00%
	d.	Disability benefits	0.07%	0.07%
	e.	Death benefits	0.39%	0.39%
	f.	Total	5.85%	5.86%

 $<sup>^{\</sup>star}$  Refund of employee contributions excluded due to use of replacement life normal cost method for ongoing plan. New members (Group D) do not contribute to the plan.

### HISTORICAL CITY CONTRIBUTION RATES

Valuation Date	Calculated Contribution Rate <sup>1</sup>	Time Period for Contribution Rate	Actual Contribution Rate
(1)	(2)	(3)	(4)
July 1, 1987	5.83 %	January 1, 1988 through December 31, 1988	5.15 %
July 1, 1988	6.27	January 1, 1989 through December 31, 1989	5.15
<b>J</b> uly 1, 1989	6.88	January 1, 1990 through December 31, 1990	6.27
<b>J</b> uly 1, 1990	6.23	January 1, 1991 through December 31, 1991	6.27
<b>J</b> uly 1, 1991	8.77	January 1, 1992 through June 30, 1993	6.27
July 1, 1992	9.11	July 1, 1993 through June 30, 1994	9.11
<b>J</b> uly 1, 1993	9.30	July 1, 1994 through June 30, 1995	9.30
July 1, 1994	8.80	July 1, 1995 through June 30, 1996	8.80
<b>J</b> uly 1, 1995	9.20	July 1, 1996 through June 30, 1997	9.20
<b>J</b> uly 1, 1996	9.10	July 1, 1997 through June 30, 1998	9.10
		July 1, 1998 through June 30, 1999	9.10
<b>J</b> uly 1, 1998	9.30	July 1, 1999 through June 30, 2000	9.30
<b>J</b> uly 1, 1999	9.80	July 1, 2000 through June 30, 2001	10.00
July 1, 2000	9.50	July 1, 2001 through June 30, 2002	10.00
July 1, 2001	17.70	July 1, 2002 through June 30, 2003	10.00
July 1, 2002	31.80	July 1, 2003 through June 30, 2004	14.70
July 1, 2003	52.89	July 1, 2004 through June 30, 2005	$92.55^{2,3}$
July 1, 2004	29.43	July 1, 2005 through June 30, 2006	15.49³
July 1, 2005	24.10	July 1, 2006 through June 30, 2007	15.89³
July 1, 2006	24.63	July 1, 2007 through June 30, 2008	15.52⁴
July 1, 2007	19.47	July 1, 2008 through June 30, 2009	14.634
July 1, 2008	19.20	July 1, 2009 through June 30, 2010	14.65 <sup>4</sup>
July 1, 2009	20.07	July 1, 2010 through June 30, 2011	16.30 <sup>4</sup>
July 1, 2010	22.36	July 1, 2011 through June 30, 2012	17.74 <sup>5</sup>
July 1, 2011	23.45	July 1, 2012 through June 30, 2013	21.10 <sup>5</sup>
July 1, 2012	26.10	July 1, 2013 through June 30, 2014	23.7⁵
July 1, 2013	27.50	July 1, 2014 through June 30, 2015	N/A
July 1, 2014	27.38	July 1, 2015 through June 30, 2016	N/A

<sup>1.</sup> Rate determined by the actuarial valuation is for the fiscal year beginning on the July 1st next following the valuation date.





<sup>2.</sup> Includes \$300 million note.

<sup>3.</sup> As pursuant to the funding schedule from the 2004 Meet and Confer agreement.

<sup>4.</sup> As pursuant to the funding schedule from the Fourth Amendment.

<sup>5.</sup> As pursuant to the funding schedule from the Amended and Restated Meet and Confer agreement.

### **CALCULATION OF ANNUAL REQUIRED CONTRIBUTION RATE**

			J	uly 1, 2014 (1)	J	uly 1, 2013 (2)
1.		Covered payroll	\$	568,992	\$	549,971
2.		Projected payroll for upcoming fiscal year*	\$	561,423	\$	546,102
3.		Present value of future pay	\$	3,816,664	\$	3,725,145
4.		Employer normal cost rate		5.85 %	6	5.86%
5.		Actuarial accrued liability for active members				
	a.	Present value of future benefits for active members	\$	2,070,248	\$	2,017,982
	b.	Less: present value of future employer normal costs		(210,384)		(205,568)
	C.	Less: present value of future employee contributions		(109,510)		(114,781)
	d.	Actuarial accrued liability	\$	1,750,354	\$	1,697,633
6.		Total actuarial accrued liability for:				
	a.	Retirees and beneficiaries	\$	2,360,600	\$	2,253,583
	b.	Inactive participants	\$	177,625		178,367
	C.	Active members (Item 5d)	\$	1,750,354		1,697,633
	d.	Total	\$	4,288,579	\$	4,129,583
7.		Actuarial value of assets	\$	2,490,521	\$	2,382,585
8.		Unfunded actuarial accrued liability (UAAL)				
		(Item 6d - Item 7)	\$	1,798,058	\$	1,746,998
9.		Funding period		30 years		30 years
10.		Assumed payroll growth rate		3.00%	6	3.00%
11.		Employer Contribution requirement				
	a.	UAAL amortization payment as % of projected pay		21.53 %	6	21.64%
	b.	Employer normal cost		5.85 %	6	5.86%
	c.	Contribution requirement (a + b)		27.38 %	6	27.50%

Note: Dollar amounts in \$000



<sup>\*</sup>The projected payroll is the actual pay received for the just completed fiscal year (including pay for any member who received pay during the year: i.e. active, terminated, retired, etc.). This pay is then increased by the payroll growth rate and by the ratio of the current number of active members to the average number of active members during the prior fiscal year.

### HISTORICAL SOLVENCY TEST

		Aggregated Accrued Liabilities For	DIIITIES FOR			By Reported Assets	Sie
Valuation Date	Active Members Contributions	Retirees Beneficiaries and Vested Terminations <sup>1</sup>	Members (City Financed Portion)	Actuarial Value of Assets	(2)/(3)	[(5)-(2)]/(3)	[(5)-(2)-(3)]/ (4)
(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)
July 1, 1995	\$ 31,130	\$ 420,830	\$ 511,752	\$ 770,189	100.0%	100.0%	62%
July 1, 1996	45,819	438,486	558,154	857,332	100.0%	100.0%	%19
July 1, 1998	34,781	502,335	703,025	1,095,617	100.0%	100.0%	%62
July 1, 1999	33,985	599,270	706,678	1,222,240	100.0%	100.0%	83%
July 1, 2000	38,292	646,611	824,470	1,376,020	100.0%	100.0%	84%
July 1, 2001	36,449	804,901	1,114,456	1,490,179	100.0%	100.0%	28%
July 1, 2002	35,888	893,568	1,585,733	1,519,717	100.0%	100.0%	37%
July 1, 2003	44,388	1,115,801	2,118,063	1,510,264	100.0%	100.0%	17%
July 1, 2004	62,062	1,355,157	1,216,599	1,501,235	100.0%	100.0%	% <i>L</i>
July 1, 2005	48,150	1,577,345	1,099,777	1,777,656	100.0%	100.0%	14%
July 1, 2006	58,043	1,729,863	1,106,389	1,867,293	100.0%	100.0%	%
July 1, 2007	69,544	1,824,992	1,234,178	2,193,745	100.0%	100.0%	24%
July 1, 2008	81,182	1,904,333	1,310,855	2,310,384	100.0%	100.0%	25%
July 1, 2009	95,268	1,974,714	1,381,428	2,284,442	100.0%	100.0%	16%
July 1, 2010	107,421	2,058,813	1,466,236	2,273,142	100.0%	100.0%	4%
July 1, 2011	118,202	2,154,959	1,517,167	2,328,804	100.0%	100.0%	4%
July 1, 2012	124,848	2,312,548	1,529,468	2,344,128	100.0%	%0.96	%0
July 1, 2013	132,238	2,431,950	1,565,395	2,382,585	100.0%	92.5%	%0
Luly 1 2014	139 203	2 538 225	1611151	9 490 591	100 0%	%9 66	%0

Note: Dollar amounts in \$000

<sup>1.</sup> Column (3) included AAL for DROP participants until 2003, now in Column (4)



### **SCHEDULE OF FUNDING PROGRESS**

		Actuarial	Unfunded Actuarial			
Date	Actuarial Value of Assets (AVA)	Accrued Liability (AAL)	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, 1995		\$ 963,712	\$ 193,523	79.9%	\$ 378,511	51.1%
•						
July 1, 1996	857,332	1,042,459	185,127	82.2%	367,610	50.4%
July 1, 1998	1,095,617	1,240,141	144,524	88.3%	397,698	36.3%
July 1, 1999	1,222,240	1,339,933	117,693	91.2%	407,733	28.9%
July 1, 2000	1,376,020	1,509,373	133,353	91.2%	432,604	30.8%
July 1, 2001	1,490,179	1,955,806	465,627	76.2%	418,234	111.3%
July 1, 2002	1,519,717	2,515,189	995,472	60.4%	399,794	249.0%
July 1, 2003	1,510,264	3,278,251	1,767,987	46.1%	390,314	453.0%
July 1, 2004	1,501,235	2,633,817	1,132,582	57.0%	366,190	309.3%
July 1, 2005	1,777,656	2,725,272	947,616	65.2%	404,565	234.2%
July 1, 2006	1,867,293	2,894,295	1,027,002	64.5%	422,496	243.1%
July 1, 2007	2,193,745	3,128,713	934,968	70.1%	448,925	208.3%
July 1, 2008	2,310,384	3,296,370	985,986	70.1%	483,815	203.8%
July 1, 2009	2,284,442	3,451,410	1,166,968	66.2%	539,023	216.5%
July 1, 2010	2,273,142	3,632,470	1,359,328	62.6%	550,709	246.8%
July 1, 2011	2,328,804	3,790,328	1,461,524	61.4%	544,665	268.3%
July 1, 2012	2,344,128	3,966,864	1,622,736	59.1%	534,394	303.7%
July 1, 2013	2,382,585	4,129,583	1,746,998	57.7%	549,971	317.7%
July 1, 2014	2,490,521	4,288,579	1,798,058	58.1%	568,992	316.0%

Note: Dollar amounts in \$000



## DISTRIBUTION OF GROUP A ACTIVE MEMBERS BY AGE AND BY YEARS OF SERVICE

Attained No Age Under 25	o. & Avg. N Comp.	1 Io. & Avg. N Comp.	0 1 2 3 4 5-9 10-14 15-19 20-24 25-29 30-34 35 & Over Total Attained No. & Avg. No. & Av	3 Io. & Avg. N Comp.	4 No. & Avg. N Comp.	5-9 Io. & Avg. N Comp.	10-14 No. & Avg. N Comp.	15-19 No. & Avg. N Comp.	20-24 No. & Avg. I Comp.	25-29 No. & Avg.   Comp.	30-34 3 No. & Avg. N Comp.	35 & Over No. & Avg. N Comp.	Total o. & Avg. Comp.
25-29	2	4		_		87							94
	\$37,763	\$30,038		\$27,549		\$34,284							\$34,106
30-34	8	8	9	4		320	89						414
	\$46,704	\$34,099	\$39,159	\$34,327		\$43,361	\$39,046						\$42,390
35-39	2	14	12	_	_	330	155	33	2				553
	\$48,435	\$42,972	\$33,560	\$30,736	\$29,294	\$45,254	\$48,338	\$45,587	\$50,632				\$45,819
40-44	12	12	8	2	4	330	196	06	46	_			701
	\$43,545	\$50,674	\$31,963	\$41,821	\$59,780	\$47,760	\$48,457	\$48,993	\$51,529	\$45,810			\$48,207
45-49	6	1	1	4	က	359	233	147	154	29			066
	\$36,601	\$42,385	\$33,532	\$40,410	\$49,977	\$50,022	\$49,901	\$53,516	\$54,583	\$51,455			\$50,878
50-54	7	1	18	2	4	366	271	174	218	127	70	2	1,270
	\$39,903	\$56,270	\$44,875	\$52,910	\$73,974	\$48,529	\$47,536	\$52,068	\$52,655	\$53,217	\$54,636	\$44,291	\$50,879
55-59	7	4	9	_	2	316	224	183	186	131	73	18	1,151
	\$37,788	\$39,572	\$67,317	\$34,686	\$92,844	\$48,858	\$45,386	\$54,873	\$59,125	\$64,399	\$59,819	\$60,877	\$53,510
60-64	_	2	4	_		242	184	127	134	77	31	10	813
	\$49,067	\$39,963	\$58,786	\$204,636		\$50,252	\$48,933	\$58,024	\$56,461	\$61,551	\$61,258	\$77,703	\$54,223
65 & Over		_	_	_	_	112	66	63	57	22	10	13	380
	0	\$67,325	\$75,258	\$78,416	\$122,398	\$51,380	\$52,888	\$57,436	\$68,930	\$70,159	\$70,707	\$78,878	\$58,309
Total	51	29	99	17	15	2,462	1,430	817	797	417	184	43	998'9
	\$41,886	\$44,677	\$42,186	\$50,849	\$68,155	\$47,371	\$47,944	\$53,696	\$57,092	\$58,895	\$58,681	\$69,461	\$50,692
		Average:	age: Age:	le: 50.32	Number	Number of participants:		Fully vested: (	6,150	Males:	3,447		
			Ser	e: 13.98		,					2,919		

Note: A former Group A employee who is rehired on or after January 1, 2008 is still a Group A employee.



## DISTRIBUTION OF GROUP B ACTIVE MEMBERS BY AGE AND BY YEARS OF SERVICE

25-29											
,	က			10							13
	\$23,455			\$33,184							\$30,939
30-34	_	_		5	_	2					10
	\$27,712	\$28,766		\$35,232	\$22,287	\$50,383					\$35,569
35-39	က	_		9	7	40					57
	\$49,856	\$31,554		\$37,811	\$51,980	\$42,921					\$43,661
40-44	7	_	2	8	8	110	41	_			179
\$30,941	41 \$33,520	\$37,482	\$35,583	\$41,697	\$45,417	\$43,965	\$44,236	\$38,611			\$43,263
45-49	2 3	2	2	13	7	133	141	33			339
\$39,208	08 \$38,323	\$46,965	\$69,245	\$48,453	\$31,527	\$42,748	\$48,891	\$45,290			\$45,696
50-54	2 7	8	လ	1	_	118	108	<i>L</i> 9	36		361
\$43,202	02 \$54,513	\$62,299	\$49,698	\$42,305	\$78,385	\$41,321	\$46,309	\$43,848	\$45,943		\$44,677
55-59	2 3	4	_	12	_	108	126	54	27	∞	346
\$38,813	13 \$61,222	\$45,905	\$28,978	\$61,244	\$100,235	\$47,594	\$45,311	\$52,042	\$54,939	\$53,998	\$48,798
60-64	3	2	_	8		74	73	28	16	2	208
\$48,727	27 \$30,750	\$44,939	\$31,075	\$92,411		\$45,182	\$42,644	\$57,342	\$43,560	\$64,104	\$46,712
65 & Over			_	8	2	25	29	1	4		77
	\$23,129		\$119,634	\$63,338	\$40,985	\$48,441	\$54,506	\$57,978	\$39,626		\$52,343
Total	17 25	22	10	71	27	610	518	194	83	13	1,590
\$37,230	30 \$43,071	\$50,205	\$53,844	\$47,407	\$45,584	\$44,115	\$46,547	\$49,096	\$48,105	\$57,885	\$46,063

Note: A former Group B employee who is rehired on or after January 1, 2008 is still a Group B employee.



## DISTRIBUTION OF GROUP D ACTIVE MEMBERS BY AGE AND BY YEARS OF SERVICE

0 1 2 36 & Over Total Attained No. & Avg. No	280	\$29,990	889	\$35,493	743	\$40,532	496	\$45,171	488	\$48,124	412	\$46,683	360	\$46,034	283	\$52,376	181	\$55,432	62	\$57,509	3,993	\$43,338
35 & Over g. No. & Avg. Comp.																						
30-34 . No. & Avg Comp.																						
25-29 No. & Avg. Comp.																						
20-24 No. & Avg. Comp.																						
15-19 No. & Avg. Comp.																						
10-14 No. & Avg. Comp.																						
5-9 Io. & Avg. Comp.	80	\$41,983	137	\$33,242	230	\$40,744	165	\$45,634	146	\$48,184	139	\$45,940	110	\$46,311	108	\$50,014	78	\$50,144	31	\$50,323	1,152	\$44,426
4 Io. & Avg. N Comp.	7	\$35,844	30	\$39,273	48	\$43,387	27	\$55,150	37	\$53,068	39	\$48,560	27	\$61,680	21	\$50,177	14	\$72,949	15	\$79,517	265	\$52,042
3 o. & Avg.N Comp.	9	\$27,829	37	\$39,439	43	\$42,684	23	\$52,940	30	\$45,053	36	\$52,358	23	\$44,452	16	\$71,660	9	\$65,318	2	\$29,439	222	\$47,457
2 o. & Avg. N Comp.	31	\$29,482	120	\$36,641	91	\$41,626	09	\$42,003	28	\$47,391	20	\$48,973	47	\$47,313	23	\$56,414	18	\$57,611	∞	\$44,022	206	\$42,938
o. & Avg. N Comp.	65	\$28,828	155	\$34,333	130	\$38,121	6	\$44,490	91	\$49,047	29	\$43,392	62	\$42,986	89	\$51,493	29	\$56,805	4	\$62,451	768	\$41,538
0 lo. & Avg. No Comp.	163	\$29,790	209	\$35,930	201	\$40,210	124	\$43,006	126	\$47,005	81	\$45,839	91	\$42,874	47	\$51,521	36	\$56,232	2	\$75,972	1,080	\$40,662
Attained N Age	Under 25		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65 & Over		Total	

HMEPS
HOUSTON AURICIPAL EMPLOYEES PENSION SYSTEM

Males: 2,233

Number of participants: Fully vested: 1,152

Age: 39.29 Service: 2.89

Average:

Females:

Not Vested: 2,841

5,503

Females:

3,131

Not Vested:

Service:

# DISTRIBUTION OF ALL ACTIVE MEMBERS BY AGE AND BY YEARS OF SERVICE ALL EMPLOYEES

65         31         6         7         8           \$28,828         \$29,482         \$27,829         \$35,844         \$41,983           \$162         120         38         30         234           \$162         120         38         30         234           \$134         \$41         \$84         \$24         \$83,627         \$88,803         \$50,383           \$139         98         47         48         555         69         2         8           \$144         \$41,344         \$41,972         \$43,387         \$44,445         \$44,126         \$50,632         \$44,444           \$44,444         \$40,472         \$52,015         \$54,226         \$44,495         \$44,126         \$50,632         \$42,211           \$44,444         \$40,472         \$52,015         \$54,226         \$44,495         \$44,126         \$50,632         \$42,211           \$44,444         \$40,472         \$52,015         \$48,495         \$44,126         \$50,632         \$42,211           \$44,444         \$40,472         \$52,015         \$48,495         \$44,126         \$50,632         \$42,211           \$41,006         \$45,401         \$48,632         \$48,495         \$44,126	Attaine Age	Attained No. & Avg.No. & Avg.No. & Avg.No. & Avg.No. Age Comp. Comp. Comp. Comp.	No. & Avg.N Comp.	No. & Avg.N Comp.	Io. & Avg.N Comp.	lo. & Avg. N Comp.	& Avg. No. & Avg. omp. Comp. Comp. Comp. Comp.	No. & Avg. N Comp.	No. & Avg. N Comp.	lo. & Avg. N Comp.	No. & Avg. I Comp.	No. & Avg. Comp.	No. & Avg. N Comp.	o. & Avg. Comp.
\$29,790         \$28,828         \$29,482         \$27,7829         \$35,844         \$41,983         \$34         \$41,983         \$34         \$41,983         \$34         \$41,983         \$34         \$41,982         \$35,844         \$41,982         \$35,844         \$41,982         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$33,627         \$34,628         \$35,883	Under 2		65	31		7								280
211         162         120         38         30         234           \$35,947         \$34,026         \$36,641         \$39,126         \$33,627         \$38,803         \$55         69         2           \$40,456         \$37,815         \$41,344         \$41,972         \$42,203         \$38,803         \$50,383         \$2           \$40,456         \$44,444         \$41,344         \$41,972         \$42,203         \$38,803         \$50,382         \$2           \$45,916         \$44,444         \$40,472         \$52,015         \$54,206         \$48,495         \$44,126         \$50,632         \$42,211           \$45,943         \$40,085         \$44,444         \$40,470         \$44,306         \$53,723         \$44,496         \$44,126         \$50,632         \$42,211           \$45,943         \$40,085         \$44,444         \$44,306         \$53,723         \$44,786         \$48,692         \$44,206         \$42,214           \$44,791         \$44,444         \$44,306         \$53,723         \$44,786         \$48,692         \$44,206         \$42,244           \$44,791         \$44,796         \$44,286         \$44,286         \$44,286         \$44,286         \$44,286         \$44,286         \$44,286         \$44,286         <		\$29,790	\$28,828	\$29,482	\$27,829	\$35,844	\$41,983							\$29,990
\$35,947         \$34,026         \$36,641         \$39,126         \$33,627         69         2           209         139         98         47         48         555         69         2           209         139         98         47         48         555         69         2           40,456         \$41,344         \$41,972         \$42,203         \$38,803         \$50,833         2           129         114         73         24         28         501         162         73         2           145         104         67         34         41         484         204         200         87         2           \$45,043         \$44,444         \$40,472         \$52,012         \$45,290         \$48,495         \$44,126         \$50,632         2           \$45,043         \$44,444         \$40,472         \$54,226         \$45,290         \$48,495         \$44,126         \$50,632         3           \$45,043         \$44,444         \$40,472         \$48,661         \$48,832         \$40,228         \$44,012         \$50,632         3           \$45,043         \$46,247         \$52,024         \$48,661         \$48,872         \$49,386         \$4	25-29	211	162	120	38	30	234							795
209         139         98         47         48         555         69         2           \$40,458         \$37,815         \$41,344         \$41,972         \$43,387         \$42,203         \$38,803         \$50,383           119         114         73         24         28         501         162         73         2           \$43,216         \$44,444         \$40,472         \$52,015         \$54,226         \$44,126         \$50,632         2           \$45,943         \$44,444         \$40,472         \$52,015         \$54,226         \$44,126         \$50,632         2           \$45,943         \$44,406         \$44,126         \$50,632         2         2         2           \$45,943         \$40,472         \$52,015         \$54,226         \$44,126         \$50,632         3         2           \$45,943         \$44,406         \$44,126         \$50,632         3         4         4         484         204         200         87         2           \$45,943         \$46,247         \$52,024         \$48,661         \$44,872         \$44,401         \$51,683         \$49,241         106           \$44,791         \$46,247         \$44,476         \$44,401		\$35,947	\$34,026	\$36,641	\$39,126	\$39,273	\$33,627							\$35,255
\$40,458         \$37,815         \$41,344         \$41,972         \$43,387         \$42,203         \$58,803         \$50,383           129         114         73         24         28         501         162         73         2           \$43,216         \$44,444         \$40,472         \$52,015         \$54,226         \$44,495         \$44,126         \$50,632           \$45,243         \$44,444         \$40,472         \$52,015         \$54,226         \$44,495         \$44,126         \$50,632           \$45,443         \$40,472         \$52,015         \$54,226         \$44,495         \$44,126         \$50,632         \$7           \$45,943         \$49,085         \$45,401         \$44,306         \$53,723         \$44,788         \$48,338         \$46,228         \$48,092         \$42,211           \$44,791         \$43,068         \$46,247         \$52,024         \$48,661         \$48,872         \$49,366         \$48,401         \$51,663         \$49,244           \$100         80         73         48,661         \$48,872         \$49,366         \$44,405         \$44,405         \$49,244         \$106           \$44,791         \$45,618         \$63,266         \$47,887         \$47,650         \$44,7725         \$52,559 </td <td>30-34</td> <td>209</td> <td>139</td> <td>98</td> <td>47</td> <td>48</td> <td>222</td> <td>69</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td>1,167</td>	30-34	209	139	98	47	48	222	69	2					1,167
129         114         73         24         28         501         162         73         2           \$43,216         \$44,444         \$40,472         \$52,015         \$54,226         \$48,495         \$44,126         \$50,632           145         104         67         34         41         484         204         200         87         2           \$45,943         \$49,085         \$44,404         \$44,306         \$53,723         \$47,788         \$48,938         \$46,228         \$48,092         \$42,211           \$45,943         \$49,085         \$48,8138         \$46,228         \$44,092         \$42,211         20         82           \$44,791         \$43,088         \$46,247         \$48,861         \$44,778         \$48,936         \$48,481         \$51,887         \$49,486         \$44,412         \$51,887         \$49,484         \$40,486         \$44,418         \$51,887         \$49,484         \$40,486         \$44,416         \$51,683         \$49,244         \$40           \$44,772         \$45,81         \$45,618         \$43,865         \$44,401         \$51,887         \$40,486         \$47,650         \$47,725         \$52,559         \$49,981         \$51,683           \$49,351         \$51,424		\$40,458	\$37,815	\$41,344	\$41,972	\$43,387	\$42,203	\$38,803	\$50,383					\$41,148
\$43,216         \$44,444         \$40,472         \$52,015         \$54,226         \$48,495         \$44,126         \$50,632           145         104         67         34         41         484         204         87         2           \$45,943         \$49,085         \$45,401         \$44,306         \$53,723         \$47,788         \$46,228         \$46,092         \$42,211           \$45,943         \$49,085         \$45,401         \$48,401         \$46,092         \$42,211         100           \$44,791         \$48,086         \$48,661         \$48,872         \$49,366         \$48,401         \$51,863         \$49,244           \$40         80         73         28         31         487         272         292         326         194         106           \$42,673         \$46,247         \$52,024         \$48,872         \$49,366         \$47,465         \$47,650         \$47,725         \$52,559         \$49,981         \$51,683           \$42,673         \$46,618         \$63,266         \$47,887         \$47,650         \$47,725         \$52,559         \$49,981         \$51,683           \$49,351         \$51,247         \$51,883         \$49,485         \$45,629         \$45,993         \$51,683	35-39	129			24	28	501	162	73	2				1,106
145         104         67         34         41         484         204         200         87         2           \$45,943         \$49,085         \$45,401         \$44,306         \$53,723         \$47,788         \$48,388         \$46,228         \$48,092         \$42,211           \$44,791         \$46,085         \$46,401         \$51,863         \$49,244         106           \$44,791         \$43,068         \$46,247         \$52,024         \$48,661         \$48,872         \$49,366         \$48,401         \$51,863         \$49,244           \$40,081         \$43,068         \$46,247         \$52,024         \$48,661         \$48,872         \$49,465         \$44,772         \$51,863         \$49,244         \$40,683           \$42,673         \$48,618         \$52,024         \$48,661         \$48,877         \$47,650         \$47,772         \$51,683         \$49,981         \$51,683           \$42,673         \$48,486         \$47,887         \$47,650         \$47,772         \$52,559         \$49,981         \$51,683           \$49,351         \$51,244         \$49,485         \$45,629         \$52,171         \$53,547         \$60,792         \$58,592           \$49,351         \$56,749         \$50,617         \$48,933		\$43,216	\$44,444	\$40,472	\$52,015	\$54,226	\$45,290	\$48,495	\$44,126	\$50,632				\$45,417
\$45,943         \$49,085         \$45,401         \$44,306         \$53,723         \$47,788         \$48,338         \$46,228         \$48,092         \$42,211           92         81         66         42         511         240         280         295         92           \$44,791         \$43,068         \$46,247         \$52,024         \$48,661         \$48,872         \$49,366         \$48,401         \$51,863         \$49,244           \$44,791         \$43,068         \$46,247         \$52,024         \$48,661         \$48,872         \$49,366         \$48,401         \$51,863         \$49,244           \$40,281         \$46,247         \$52,024         \$48,661         \$48,872         \$49,366         \$44,401         \$51,863         \$49,244         \$106           \$42,673         \$46,461         \$47,887         \$47,650         \$47,725         \$52,559         \$49,981         \$51,683           \$49,351         \$51,247         \$51,247         \$51,447         \$51,683         \$49,244         \$51,683           \$49,351         \$51,247         \$61,679         \$41,650         \$47,725         \$52,559         \$49,981         \$51,683           \$49,351         \$51,457         \$51,456         \$51,471         \$53,547	40-44	145	104	29	34	41	484	204	200	87	2			1,368
92         81         66         42         42         51         240         280         295         92           \$44,791         \$43,068         \$46,247         \$52,024         \$48,661         \$48,872         \$49,366         \$48,401         \$51,863         \$49,244           100         80         73         28         31         487         272         292         326         194         106           \$42,673         \$45,821         \$48,354         \$45,618         \$63,266         \$47,725         \$52,559         \$49,981         \$51,683           \$42,673         \$51,247         \$51,247         \$51,247         \$51,247         \$51,683         \$51,683           \$49,351         \$51,247         \$51,247         \$51,247         \$51,673         \$51,683         \$51,683         \$51,683           \$49,351         \$51,247         \$51,247         \$51,673         \$51,683         \$51,683         \$51,683         \$51,683           \$49,351         \$51,247         \$51,683         \$52,171         \$53,547         \$60,792         \$58,502           \$49,351         \$51,491         \$51,401         \$51,401         \$52,652         \$51,401         \$51,401         \$52,652         \$51,401		\$45,943	\$49,085	\$45,401	\$44,306	\$53,723	\$47,788	\$48,338	\$46,228	\$48,092	\$42,211			\$47,531
\$44,791         \$48,068         \$46,247         \$52,024         \$48,661         \$48,872         \$49,366         \$48,401         \$51,863         \$49,244         106           100         80         73         28         31         487         272         292         326         194         106           \$42,673         \$45,821         \$45,618         \$63,266         \$47,887         \$47,650         \$47,725         \$52,559         \$49,981         \$51,683           56         75         33         18         23         436         225         291         312         185         100           \$49,351         \$51,247         \$57,122         \$67,235         \$53,887         \$49,485         \$45,629         \$52,171         \$53,547         \$60,792         \$58,502           40         34         14         323         184         201         105         47           \$55,490         \$56,751         \$78,452         \$72,949         \$50,617         \$48,933         \$53,296         \$51,588         \$60,429         \$55,233           \$59,876         \$56,709         \$47,493         \$64,232         \$82,197         \$51,401         \$52,652         \$54,881         \$66,099         \$6	45-49	92	81	99	42	42	511	240	280	295	92			1,741
100         80         73         28         31         487         272         292         326         194         106           \$42,673         \$45,673         \$45,618         \$63,266         \$47,887         \$47,650         \$47,725         \$52,559         \$49,981         \$51,683           56         75         33         18         23         436         225         291         312         185         100           \$49,351         \$51,247         \$51,247         \$57,122         \$67,235         \$53,887         \$49,485         \$45,629         \$52,171         \$53,547         \$60,792         \$58,502           40         34         4         323         184         201         207         105         47           40         4         32         148         201         207         105         \$55,233           \$55,490         \$56,791         \$78,452         \$50,617         \$48,933         \$53,296         \$51,588         \$60,429         \$55,233           \$55,490         \$56,709         \$41,403         \$64,232         \$82,197         \$51,401         \$52,652         \$54,881         \$64,066         \$60,999         \$60,999         \$61,827		\$44,791	\$43,068	\$46,247	\$52,024	\$48,661	\$48,872	\$49,366	\$48,401	\$51,863	\$49,244			\$48,876
\$42,673       \$45,821       \$48,354       \$45,618       \$63,266       \$47,887       \$47,650       \$47,725       \$52,559       \$49,981       \$51,683         56       75       33       18       23       436       225       291       312       185       100         \$49,351       \$51,247       \$67,235       \$53,887       \$49,485       \$45,629       \$52,171       \$53,547       \$60,792       \$58,502         40       34       24       8       14       323       184       201       207       105       47         \$55,490       \$53,515       \$56,751       \$78,452       \$72,949       \$50,617       \$48,933       \$53,296       \$51,588       \$60,429       \$55,233         3       6       9       4       16       146       101       88       86       33       14         \$59,876       \$56,709       \$47,493       \$64,232       \$82,197       \$51,401       \$52,652       \$54,881       \$64,066       \$66,099       \$61,827         \$40,666       \$41,827       \$47,945       \$52,905       \$46,451       \$47,947       \$47,947       \$47,947       \$47,947       \$47,947       \$47,947       \$47,947       \$47,947	50-54	100		73	28	31	487	272	292	326	194	106	2	1,991
56         75         33         18         23         436         225         291         312         185         100           \$49,351         \$51,247         \$51,247         \$51,247         \$60,792         \$58,502         100           40         34         24         8         14         323         184         201         207         105         47           \$55,490         \$53,515         \$56,751         \$78,452         \$72,949         \$50,617         \$48,933         \$53,296         \$51,588         \$60,429         \$55,233           \$59,876         \$56,709         \$47,493         \$64,232         \$82,197         \$51,401         \$52,652         \$54,881         \$64,066         \$66,099         \$61,827           \$1,148         860         594         249         280         3,685         1,457         1,427         1,315         611         267           \$40,606         \$41,827         \$42,946         \$52,934         \$55,394         \$55,394		\$42,673	\$45,821	\$48,354	\$45,618	\$63,266	\$47,887	\$47,650	\$47,725	\$52,559	\$49,981	\$51,683	\$44,291	\$48,878
\$49,351 \$51,247 \$57,122 \$67,235 \$53,887 \$49,485 \$45,629 \$52,171 \$53,547 \$60,792 \$58,502 \$6,502 \$49,351 \$51,247 \$51,247 \$51,245 \$56,751 \$78,452 \$72,949 \$50,617 \$48,933 \$53,296 \$51,588 \$60,429 \$55,233 \$14 \$101 \$8 86 33 14 \$1401 \$52,652 \$54,881 \$64,066 \$66,099 \$61,827 \$1,148 \$80 594 249 \$280 3,685 1,457 \$1,447 \$1,315 \$61,066 \$55,784 \$55,394 \$55,394	55-59	26	75	33	18	23	436	225	291	312	185	100	26	1,780
40       34       24       8       14       323       184       201       207       105       47         \$55,490       \$56,751       \$78,452       \$72,949       \$50,617       \$48,933       \$53,296       \$51,588       \$60,429       \$55,233         3       6       9       4       16       146       101       88       86       33       14         \$59,876       \$56,709       \$47,493       \$64,232       \$82,197       \$51,401       \$52,652       \$54,881       \$64,066       \$66,099       \$61,827         1,148       860       594       249       280       3,685       1,457       1,427       1,315       611       267         \$40,666       \$41,827       \$42,945       \$46,451       \$47,945       \$46,451       \$47,946       \$52,938       \$55,784       \$55,394		\$49,351	\$51,247	\$57,122	\$67,235	\$53,887	\$49,485	\$45,629	\$52,171	\$53,547	\$60,792	\$58,502	\$58,761	\$52,414
\$55,490 \$53,515 \$56,751 \$78,452 \$72,949 \$50,617 \$48,933 \$53,296 \$51,588 \$60,429 \$55,233 \$55,490 \$6,090 \$60,429 \$55,233 \$72,949 \$50,617 \$48,933 \$53,296 \$51,588 \$60,429 \$55,233 \$14 \$146 \$59,876 \$56,709 \$47,493 \$64,232 \$82,197 \$51,401 \$52,652 \$54,881 \$64,066 \$66,099 \$61,827 \$1,148 \$60 \$594 \$249 \$280 \$3,685 \$1,457 \$1,457 \$1,427 \$1,315 \$611 \$267 \$40,666 \$41,827 \$43,124 \$47,945 \$52,905 \$46,451 \$47,901 \$49,600 \$52,938 \$55,784 \$55,394	60-64	40	34	24	80	14	323	184	201	207	105	47	15	1,202
\$59,876 \$56,709 \$47,493 \$64,232 \$82,197 \$51,401 \$52,652 \$54,881 \$64,066 \$66,099 \$61,827 \$78,8 1,148 860 594 249 280 3,685 1,457 1,427 1,315 611 267 \$40,666 \$41,827 \$47,945 \$52,905 \$46,451 \$47,901 \$49,600 \$52,938 \$55,784 \$55,394 \$66,7		\$55,490	\$53,515	\$56,751	\$78,452	\$72,949	\$50,617	\$48,933	\$53,296	\$51,588	\$60,429	\$55,233	\$73,170	\$53,106
\$59,876 \$56,709 \$47,493 \$64,232 \$82,197 \$51,401 \$52,652 \$54,881 \$64,066 \$66,099 \$61,827 \$78,8 1,148 860 594 249 280 3,685 1,457 1,427 1,315 611 267 \$40,666 \$41,827 \$43,124 \$47,945 \$52,905 \$46,451 \$47,901 \$49,600 \$52,938 \$55,784 \$55,394 \$66,7	65 & Ove		9	6	4	16	146	101	88	98	33	14	13	519
1,148 860 594 249 280 3,685 1,457 1,427 1,315 611 267 267 840,666 \$41,827 \$43,124 \$47,945 \$52,905 \$46,451 \$47,901 \$49,600 \$52,938 \$55,784 \$55,394 \$66,7		\$59,876	\$56,709	\$47,493	\$64,232	\$82,197	\$51,401	\$52,652	\$54,881	\$64,066	\$66,099	\$61,827	\$78,878	\$57,328
\$41 827 \$43 124 \$47 945 \$52 905 \$46 451 \$47 901 \$49 600 \$52 938 \$55 784 \$55 394	Total	1,148		594	249	280	3,685	1,457	1,427	1,315	611	267	26	11,949
		\$40,666	\$41,827	\$43,124	\$47,945	\$52,905	\$46,451	\$47,901	\$49,600	\$52,938	\$55,784	\$55,394	\$66,774	\$47,618
			•		) 10:01		2		day vested.	0,0	6.0			

### HISTORICAL ACTIVE PARTICIPANT DATA

Valuation	Active	Average	Average	Covered	Average	Percent
Date	Count	Age	Service	Payroll	Salary	Changes
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1988	11,344	N/A	N/A	\$227,900	\$20,090	1.9%
1989	11,356	N/A	N/A	\$235,400	\$20,729	3.2%
1990	12,037	40.0	N/A	\$258,556	\$21,480	3.6%
1991	12,488	40.3	N/A	\$284,914	\$22,815	6.2%
1992	12,913	40.5	N/A	\$314,686	\$24,370	6.8%
1993	13,112	40.9	N/A	\$340,249	\$25,949	6.5%
1994	14,027	40.9	N/A	\$366,561	\$26,133	0.7%
1995	14,364	41.3	N/A	\$378,511	\$26,351	0.8%
1996	14,067	41.8	N/A	\$367,610	\$26,133	(0.8%)
1998¹	13,764	42.8	9.8	\$394,919	\$28,692	9.8%
1999¹	13,286	42.9	9.8	\$396,617	\$29,852	4.0%
2000¹	13,126	43.7	10.3	\$421,591	\$32,119	7.6%
2001 <sup>1</sup>	12,928	43.9	10.3	\$413,021	\$31,948	(0.5%)
2002	12,527	44.7	11.0	\$399,794	\$31,915	(0.1%)
2003	12,120	45.2	11.2	\$390,314	\$32,204	0.9%
2004	11,856	45.1	10.3	\$366,190	\$30,886	(4.1%)
2005 <sup>2</sup>	11,974	44.8	9.6	\$404,565	\$33,787	9.4%
2006	12,145	44.8	9.3	\$422,496	\$34,788	3.0%
2007	12,376	45.2	9.3	\$448,925	\$36,274	4.3%
2008	12,653	45.2	9.3	\$483,815	\$38,237	5.4%
2009	13,333	45.1	9.2	\$539,023	\$40,428	5.7%
2010	12,913	45.8	10.0	\$550,709	\$42,648	5.5%
2011	12,345	46.5	10.6	\$544,665	\$44,120	3.5%
2012	11,670	46.8	11.1	\$534,394	\$45,792	3.8%
2013	11,781	46.9	11.1	\$549,971	\$46,683	1.9%
2014	11,949	46.9	11.1	\$568,992	\$47,618	2.0%

### RETIREES, BENEFICIARIES, AND DISABLED PARTICIPANTS ADDED TO AND REMOVED FROM ROLLS

	Added	d to Rolls	Remove	d from Rolls	Rolls-	End of year	% Increase	Average
Valuation		Annual		Annual		Annual	in Annual	Annual
<u>July 1,</u>	Number	Allowances	Number	Allowances	Number	Allowances	Allowances	Allowances
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1995	393	\$ 3,044	220	\$ 1,307	4,441	\$ 36,482	7.4%	\$ 8,215
1996	416	3,119	239	1,438	4,618	38,815	6.4%	8,405
1998	693	5,840	441	3,212	4,870	43,394	11.8%	8,910
1999	432	2,131	303	1,515	4,999	46,732	7.7%	9,348
2000	360	3,412	255	1,380	5,104	49,970	6.9%	9,790
2001	652	8,937	299	1,030	5,457	57,877	15.8%	10,606
2002	777	15,061	306	2,476	5,928	72,256	24.8%	12,189
2003	598	11,497	311	1,873	6,215	84,519	17.0%	13,599
2004	942	25,189	279	2,624	6,878	107,084	26.7%	15,569
2005	861	18,054	216	1,926	7,523	123,212	15.1%	16,378
2006	654	14,722	397	2,246	7,780	135,688	10.1%	17,441
2007	440	10,280	249	3,007	7,971	142,961	5.4%	17,935
2008	464	11,052	280	3,420	8,155	150,592	5.3%	18,466
2009	474	11,430	289	3,667	8,340	158,356	5.2%	18,988
2010	476	12,040	290	3,938	8,526	166,458	5.1%	19,524
2011	502	13,202	311	4,451	8,717	175,210	5.3%	20,100
2012	654	16,299	293	3,993	9,078	187,515	7.0%	20,656
2013	695	15,566	346	5,051	9,427	198,030	5.6%	21,007
2014	619	15,370	361	5,717	9,685	207,683	4.9%	21,444

Note: Dollar amounts in \$000



Note: Dollar amounts in \$000

1. Excludes DROP participants

2. Beginning with the 2005 valuation, a change in methodology now annualizes payroll for new entrants. If the methodology had not been changed, the covered payroll for 2005 would have been \$376,208,345 and the average payroll would have been \$31,419.

### **MEMBERSHIP DATA**

		July 1, 2014 (1)	July 1, 2013 (2)	,	July 1, 2012 (3)
1.	Active members				
	a. Number	11,949	11,781		11,670
	b. Number vested	8,818	8,627		8,158
	c. Covered payroll	\$ 568,992,000	\$ 549,971,000	\$	534,394,000
	d. Average salary	47,618	46,683		45,792
	e. Average age	46.9	46.9		46.8
	f. Average service	11.1	11.1		11.1
2.	Inactive participants				
	a. Vested	3,313	3,298		3,237
	b. Total annual benefits (deferred)	\$ 23,048,675	\$ 22,775,947	\$	21,912,012
	c. Average annual benefit	6,957	6,906		6,769
	d. NonVested	2,219	2,257		2,434
3.	Service retirees				
	a. Number	7,498	7,258		7,031
	b. Total annual benefits	\$ 178,109,613	\$ 170,255,078	\$	162,527,371
	c. Average annual benefit	23,754	23,458		23,116
	d. Average age	68.5	68.3		68.0
4.	Disabled retirees				
	a. Number	371	387		391
	b. Total annual benefits	\$ 3,749,983	\$ 3,803,033	\$	3,814,351
	c. Average annual benefit	10,108	9,827		9,755
	d. Average age	64.8	64.3		64.0
5.	Beneficiaries and spouses				
	a. Number	1,816	1,782		1,656
	b. Total annual benefits	\$ 25,823,664	\$ 23,971,844	\$	21,173,610
	c. Average annual benefit	14,220	13,452		12,786
	d. Average age	69.7	69.6		69.5



### ESTIMATION OF INVESTMENT RETURN YIELD (NET OF EXPENSES)

	Item	July 1, 2014	July 1, 2013
	(1)	(2)	(3)
A. Ma	arket value yield		
1.	Beginning of year net market assets	\$ 2,196,615	\$ 2,024,235
2.	Net Investment income (net of all expenses)*	346,108	257,924
3.	End of year market assets	2,464,439	2,196,615
4.	Estimated market value yield	16.04%	13.02%
B. Ac	tuarial value yield		
1.	Beginning of year actuarial assets	\$ 2,382,585	\$ 2,344,128
2.	Net Investment income (net of all expenses)*	186,220	124,001
3.	End of year actuarial assets	2,490,521	2,382,585
4.	Estimated actuarial value yield	7.95%	5.39%

<sup>\*</sup>Net investment income is net of both investment and administrative expenses

Note: Dollar amounts in \$000

### HISTORY OF INVESTMENT RETURNS

For Fiscal Year Ending	Market Value	Actuarial Value
(1)	(2)	(3)
June 30, 2003	2.34%	1.69%
June 30, 2004	18.10%	4.16%
June 30, 2005	12.85%	4.12%
June 30, 2006	16.41%	8.95%
June 30, 2007	17.85%	21.51%
June 30, 2008	(0.25%)	8.97%
June 30, 2009	(20.14%)	2.60%
June 30, 2010	11.21%	3.54%
June 30, 2011	21.56%	6.27%
June 30, 2012	(0.89%)	4.46%
June 30, 2013	13.02%	5.39%
June 30, 2014	16.04%	7.95%
Average Compound Return - last 5 years	11.93%	5.51%
Average Compound Return - last 10 years	8.04%	7.26%

Note: Investment returns are estimations made by the actuary and are dollar-weighted returns net of administrative and investment expenses.





### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

The following methods and assumptions were used in preparing the July 1, 2014, actuarial valuation. These assumptions were adopted by the Board effective for the July 1, 2010 valuation.

### 1. Valuation Date

The valuation date is July 1st 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 Entry Age Normal 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 liability.

- 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 8.5 percent), of each participant's expected benefit payable at retirement or death is determined, based on his/ her age, service, sex 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 Future salary increases are also benefit. anticipated. The present value of the expected benefits payable on account of 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 Plan on account of the present group of participants and beneficiaries.
- b. The employer contributions required to support the benefits of the Plan are determined using a level funding approach, and consist of a normal contribution and an accrued liability contribution.
- c. The normal contribution is determined using the "entry age normal" method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the

- compensation of each new participant during the entire period of his/her anticipated covered service, would be required to meet the cost of all benefits payable on his behalf based on the benefits provisions for new employees hired on or after January 1, 2008.
- d. The unfunded 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 and the determination of the rate reflects 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) 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 administrative and investment expenses.

### 4. Economic Assumptions

a. Investment return: 8.50% per year, compounded annually, composed of an assumed 3.00% inflation rate and a 5.50% net real rate of return.



### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

This rate represents the assumed return, net of all investment and administrative expenses.

b. Salary increase rate: A service-related component, plus a 3.00% inflation component, plus a 0.0% general increase, as follows:

Years of Service	Service-related Component	Total Annual Rate of Increase Including 3.00% Inflation Component and 0.0% General Increase Rate
(1)	(2)	(3)
1	3.00%	6.00%
2	2.75	5.75
3	2.50	5.50
4	2.00	5.00
5-6	1.75	4.75
7	1.50	4.50
8-9	1.25	4.25
10-14	1.00	4.00
15-19	0.75	3.75
20-24	0.50	3.50
25+	0.00	3.00

c. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.00% 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 (see table on the following page).
- b. DROP Participation 90% of eligible members are assumed to enter DROP at first eligibility.
- c. DROP Entry Date Active members (not already in DROP) are assumed to take advantage of the DROP and enter when first eligible. For members who have already entered DROP, the actual DROP entry date supplied in the data is used.
- d. DROP Interest Credit 4.25% per year
- e. DROP Payout It is assumed members with DROP balances will take their DROP balance in 6 equal annual installments beginning the year after retirement. Members currently retired with DROP balances are assumed to take 6 equal annual installments from the valuation date.
- f. Mortality rates (for active and retired members)

- Healthy males Based on the Retired Pensioners 2000 Mortality Table (combined) for males. Rates are scaled by 110%.
- Healthy females Based on the Retired Pensioners 2000 Mortality Table (combined) for females. Rates are scaled by 95%.
- Disabled males and females 1965 Railroad Retirement Board Disabled Life Table. Rates are set-back two years for males and eight years for females.

Sample rates are shown on the following page.

g. Termination Rates and Disability Rates -Termination rates (for causes other than death, disability or retirement): Termination rates are a function of the member's age and service. Termination rates are not applied after a member becomes eligible for a retirement benefit. Rates at selected ages are shown on page 83.

### 6. Other Assumptions

- a. Projected payroll for contribution purposes: The aggregate projected payroll for the fiscal year following the valuation date is calculated by increasing the actual payroll paid during the previous fiscal year to all members (actives, terminated and retired) by the payroll growth rate and multiplying by the ratio of current active members to the average number of active members during the previous fiscal year.
- b. Percent married: 70% of employees are assumed to be married. (No beneficiaries other than the spouse assumed.)
- c. 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.
- d. Percent electing annuity on death (when eligible):
   All of the spouses of vested, married participants are assumed to elect an annuity.
- e. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.
- f. There will be no recoveries once disabled.
- g. No surviving spouse will remarry and there will be no children's benefit.
- h. Assumed age for commencement of deferred benefits: Members electing to receive a deferred

(continued on page 84)





### RETIREMENT RATES

### Expected Retirements per 100 Lives

Group A & B Members Group D Members Males **Females** Age Females Males (1) (2) (3) (4) (5)50-54 66-69 70-74 

### **MORTALITY RATES**

### **Expected Deaths Per 100 Lives**

	Healthy	Healthy	Disabled	Disabled
Age	Males	Females	Males	Females
(1)	(2)	(3)	(4)	(5)
25	0.04	0.02	4.41	4.41
30	0.05	0.03	4.41	4.41
35	0.09	0.05	4.41	4.41
40	0.12	0.07	4.41	4.41
45	0.17	0.11	4.42	4.41
50	0.24	0.16	4.48	4.42
55	0.40	0.26	4.67	4.46
60	0.74	0.48	5.09	4.62
65	1.40	0.92	5.76	4.98
70	2.44	1.59	6.84	5.60
75	4.16	2.67	8.62	6.58
80	7.08	4.36	11.40	8.21

For pre-retirement mortality, 90% of the rates shown above are assumed to be for non-service related deaths and 10% for service related deaths.

Mortality Improvement: To account for future mortality improvement, the healthy mortality rates were chosen so that the assumed mortality rates are smaller than the rates observed in the most recent experience study (dated 5-25-2010). The margin at the time of the study was 22%-27% for non-disabled annuitants. No future mortality improvement after the measurement date is assumed except as described above.



75 +

### SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

### Probability of Decrement Due to Withdrawal - Male Members

### Years of Service

Age	0	1	2	3	4	5	6	7	8	9	10+
20	0.3244	0.2682	0.2300	0.2060	0.1926	0.1824	0.1617	0.1507	0.1400	0.1278	0.1639
30	0.2585	0.2146	0.1808	0.1563	0.1396	0.1275	0.1143	0.1057	0.0985	0.0919	0.0946
40	0.2003	0.1645	0.1351	0.1124	0.0954	0.0832	0.0750	0.0683	0.0634	0.0603	0.0427
50	0.1559	0.1258	0.1013	0.0824	0.0681	0.0577	0.0510	0.0454	0.0411	0.0383	0.0206
60	0.1341	0.1083	0.0887	0.0740	0.0634	0.0557	0.0469	0.0407	0.0344	0.0277	0.0199

### Probability of Decrement Due to Withdrawal - Female Members

### Years of Service

Age	0	1	2	3	4	5	6	7	8	9	10+
20	0.2811	0.2574	0.2344	0.2123	0.1912	0.1711	0.1506	0.1282	0.1040	0.0784	0.1385
30	0.2155	0.1943	0.1736	0.1539	0.1356	0.1188	0.1032	0.0879	0.0730	0.0585	0.0795
40	0.1688	0.1460	0.1250	0.1063	0.0903	0.0770	0.0664	0.0581	0.0517	0.0472	0.0367
50	0.1510	0.1223	0.0984	0.0791	0.0645	0.0544	0.0481	0.0452	0.0453	0.0481	0.0339
60	0.1794	0.1373	0.1049	0.0812	0.0653	0.0570	0.0540	0.0552	0.0601	0.0682	0.0339

### Base Rates of Disability

Age	Males	Females
20	.00000	.00001
25	.00001	.00002
30	.00005	.00008
35	.00022	.00013
40	.00448	.00029
45	.00087	.00066
50	.00151	.00157
55	.00219	.00253
60	.00289	.00304

Rates of disability are reduced to zero once a member becomes eligible for retirement.

Rates of decrement due to Ordinary Disabilities are assumed to be 120% of the base rates shown above. Rates of decrement due to Service Related Disabilities are assumed to be 10% of the base rates shown above.

(continued from page 82) benefit are assumed to commence receipt at the first age at which unreduced benefits are available.

- Administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.
- j. 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.
- k. Decrement timing: Decrements of all types are assumed to occur mid-year.

- 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.
- m. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
- n. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.





 Benefit Service: All members are assumed to accrue 1 year of service each year. Fractional service is used to determine the amount of benefit payable.

### 7. Participant Data

Participant data was supplied on 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, sex, 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, sex, 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, prorated by the 70% marriage assumption and reflecting the 3 year spousal age differential. All non-children beneficiaries are assumed to have life only benefits and all children beneficiaries' annuities are assumed to stop at age 21.

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. For members who worked less than 1900 hours but were not new entrants, the salary was annualized to 1900 hours.

In fiscal years when a 27th 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, or inconsistent data. These had no material impact on the results presented.

### 8. Group Transfers

We assume no current Group B members will transfer to Group A.

### **Changes in Assumptions Since Prior Year**

None.

### SUMMARY OF PLAN PROVISIONS

The provisions summarized in this section apply to persons who are members (active employees). Former members may have been covered under different plan provisions, depending on their dates of separation from service.

### 1. Covered Members

Any person who is a participant of Group A, under the original act.

Persons who became employees of the City of Houston after September 1, 1981 and prior to September 1, 1999, and elected officials of the City of Houston who assumed office after September 1, 1981 and prior to September 1, 1999, participate in Group B, but may make an irrevocable election to participate in Group A instead.

Persons who become employees of the City and persons who are elected as City officials after September 1, 1999 and prior to January 1, 2008 become members of Group A. Certain persons who were or became a Director of a City Department, Chief Administrative Officer, or Executive Director of HMEPS on or after September 1, 1999 and prior to January 1, 2005 participate in Group C. Effective January 1, 2005, all Group C participation ceased and all Group C participants became Group A participants. Accruals earned by Group C participants prior to January 1, 2005 are retained, but all future accruals are based on the Group A formulas.

All future references to Group C participants in this appendix are intended to reflect this change in the Group C status.

Covered employees newly hired on or after January 1, 2008 will be members of Group D.

A former employee who is rehired on or after January 1, 2008 is a member of the group in which such employee participated at the time of his/her immediately preceding separation from service.

### 2. Monthly Final Average Salary (FAS)

The sum of the seventy-eight highest biweekly salaries paid to a member during his period of credited



service, divided by thirty-six. Salary includes base pay, longevity pay, and any shift differential pay. If there are fewer than seventy-eight biweekly salaries, the FAS is determined by multiplying the average of all biweekly salaries paid to the member during the period of credited service by 26 and dividing the product by 12.

### 3. Credited Service

All services and work performed by an employee, including prior service. For members of Group A and former Group C, all services and work performed after September 1, 1943 must have been accompanied by corresponding contributions to HMEPS by the employee or legally authorized repayments must have been made.

Credited service for former participants in Group C means the number of years of eligible service after the executive official's effective date of participation in Group C. A former Group C member receives two times the number of actual years of credited service in Group C solely for the purpose of fulfilling the eligibility requirements in Group C.

If former Group D and pre-1997 Group B members who forfeited their previous credited service are rehired they will regain a year of forfeited credited service for each year of service earned upon reemployment.

### 4. Normal Retirement

- a. Eligibility: For participants in Group A or Group B, or, a former Group C member who became a Group A member as of January 1, 2005, the earliest of:
- ii. age 62 and 5 years of Credited Service
- iii. 5 years of Credited Service, and age plus years of Credited Service equal 70 or more, provided that, prior to January 1, 2005, you had at least five years of credited service and the combination of age and years of credited service was equal to or greater than 68.
- iv. 5 years of Credited Service, and age plus years of Credited Service equal 75 or more with minimum age 50.
- v. For participants in Group D
- vi. Age 62 and 5 years of Credited Service
  - g. Benefit:

### Prior to January 1, 2005:

Group A: 3.25% of FAS for each of the first 10 years of Credited Service plus 3.50% of FAS for Credited Service greater than 10 years but less than 20 years plus 4.25% of FAS for each year of Credited Service greater than 20 years (excludes period of DROP participation). Maximum benefit is 90% of FAS for all future retirees.

Group B: 1.75% of FAS for each of the first 10 years of Credited Service plus 2.00% of FAS for Credited Service greater than 10 years but less than 20 years, plus 2.75% of FAS for each year of Credited Service greater than 20 years (excludes period of DROP participation). Maximum benefit is 90% of FAS for all future retirees.

Group C: Double the rate for Group A

### All accruals after January 1, 2005:

All accruals under the prior multipliers were frozen as of January 1, 2005 and the following benefit multipliers apply to service on or after that date:

Group A: 2.50% of FAS for each of the first 20 years of Credited Service plus 3.25% of FAS for each year of Credited Service greater than 20 years (excludes period of DROP participation). Maximum benefit is 90% of FAS for all future retirees.

Group B: 1.75% of FAS for each of the first 10 years of Credited Service plus 2.00% of FAS for Credited Service greater than 10 years but less than 20 years, plus 2.50% of FAS for each year of Credited Service greater than 20 years (excludes period of DROP participation). Maximum benefit is 90% of FAS for all future retirees.

Group D: 1.80% of FAS for each of the first 25 years of Credited Service, plus 1.00% of FAS for each year of Credited Service greater than 25 years. Maximum benefit is 90% of FAS for all future retirees.

### 5. Early Retirement (Group D only)

- a. Eligibility
- i. at least ten years of Credited Service; or
- ii. at least five years of Credited Service and a combination of age and service equals or is greater than 75.
  - c. Benefit: Accrued normal retirement benefit



reduced by 0.25% for each month you are less than age 62.

### 6. Vested Pension

- a. Eligibility: 5 years of Credited Service.
- b. Benefit:
- Group A and Group C: Either the accrued normal retirement benefit with payments beginning at the normal retirement eligibility date or a refund of employee contributions, if any, without interest.
- Group B and Group D: Accrued normal retirement benefit payable at the normal retirement eligibility date.
- iii. If the actuarial present value of a pension is less than \$20,000, a terminated participant who is not eligible to begin receiving a pension may request an early lump sum distribution of the pension. Such early lump sum distribution is irrevocable. Credited Service associated therewith can be reinstated after reemployment and pursuant to the rules of the plan.

### 7. Withdrawal Benefit

If a nonvested member withdraws from service with less than 5 years, a refund of the member's contributions is made without interest, upon request.

### 8. Service-Connected Disability Retirement

- a. Eligibility: Any age
- b. Benefit
- iii. Group A: Accrued normal retirement benefit, but not less than 20% of final monthly salary at time of disability plus 1% of final monthly salary per year of Credited Service, to a maximum of 40% of final monthly salary.
- iv. Group B and Group D: Accrued normal retirement benefit, but not less than 20% of final monthly salary at time of disability.

### 9. Non-service-Connected Disability Retirement

- a. Eligibility: 5 years of Credited Service.
- b. Benefit: Accrued normal retirement benefit payable immediately.

### 10. Pre-retirement Survivor Benefits

- a. Service-connected
- ii. Eligibility: Any age or Credited Service

- iii. Benefit: If there is a surviving spouse, 100% of FAS payable to the spouse. 10% of FAS is payable to each qualifying dependent to a maximum of 20% for all dependents. Surviving spouse's benefit will be reduced by the amount of dependent benefits. If no surviving spouse, dependent benefits are 50% of the amount a surviving spouse would have received for each dependent to a maximum of 100% for all dependents in the aggregate.
  - d. Non service-connected
- v. Eligibility: 5 years of Credited Service
- vi. Benefit:

### Benefits for survivorship of vested Group D members after January 1, 2008:

Death of active employee: If there is a surviving spouse, 100% of accrued pension is payable to the spouse. 10% of accrued pension is payable to each qualifying dependent to a maximum of 20% for all dependents. Surviving spouse's benefit will be reduced by the amount of dependent benefits. If no surviving spouse, dependent benefits are 50% of the amount a surviving spouse would have received for each dependent to a maximum of 100% for all dependents in the aggregate.

Death of terminated vested employee (not yet retired): If participant selected Optional Annuity then benefit will be paid based on selected option. If the participant did not select an optional annuity then if there is a surviving spouse the participant will be deemed to have selected the 50% J&S Optional Annuity. If the participant did not select an Optional Annuity and there is no surviving spouse then no benefit is payable.

### For all other Groups on or after August 1, 2001:

If there is a surviving spouse, 100% of accrued normal retirement benefit payable to the spouse and 10% of accrued normal retirement benefit to each qualifying dependent to a maximum of 20% for all dependents in the aggregate. The surviving spouse's benefit will be reduced by dependent benefits, if any. If there is no surviving spouse, each dependent will receive 50% of the benefit a surviving spouse would have received subject to a maximum of 100% of a surviving spouse's benefit for all dependents in the aggregate.



### 11. Post-retirement Survivor Benefits

### All Groups except Option-Eligible Participants:

If there is a surviving spouse, 100% of the retirement benefit the deceased retiree was receiving at the time of death payable to the spouse and 10% of that retirement benefit payable to each qualifying dependent to a maximum of 20% for all dependents. The surviving spouse's benefit will be reduced by dependent benefits, if any. If there is no surviving spouse, each dependent will receive 50% of the benefit a surviving spouse would have received subject to 100% of a surviving spouse's benefit for all dependents in the aggregate.

### Option-Eligible Participants:

Life only to the retiree. Option-Eligible Participants may elect other options based on actuarial factors.

All Group D members, Group A & B members who terminate after June 30, 2011 eligible for a normal retirement benefits and who are not married at their termination of service, and Group B members who terminated prior to September 1, 1997 and who are eligible for a normal retirement benefit are Option-Eligible Participants.

### 12. Benefit Adjustments

Each year, effective February 1, monthly benefits will be increased 3.0%, not compounded, for all retirees and survivors. This will affect all members currently in payment status and members who enter payment status in the future. For members hired on or after January 1, 2005 future increases will be 2.0%, not compounded. However, pre-2005 retirees who are rehired will receive a 3% COLA on their subsequent benefit instead.

### Group D Members:

None assumed.

### 13. Contribution Rates

- a. Members: 5% of salary only for Group A members. None for Group B or Group D members.
- b. City: Beginning in 1993, the rate required to fund the Retirement Fund on an actuarial reserve basis. However, effective September 1, 1999,

the minimum contribution rate is equal to the greater of 10% of covered payroll or twice the contribution rate a Group A member is required to make by statute. Under the ARM&CA between the Board and the City of Houston, the City will contribute the greater of \$108.5 million or 21.36% of payroll in fiscal year 2013. Contributions in future fiscal years increase by the greater of \$10 million or 2% of payroll over the prior year's rate until such time that the City's contribution rate equals the actuarially determined contribution rate.

### 14. Deferred Retirement Option

- a. Eligibility: Participants (other than Group D) who are eligible to retire but who have not retired and who remain in service with the City may participate in the DROP.
- b. Monthly DROP Credit: An amount equal to the accrued normal retirement benefit as of the effective date of DROP participation. The Monthly DROP Credit is credited to a notional account (DROP Account) on the last calendar day each month.
- c. DROP Credit Interest: Interest is credited to the DROP Account at the beginning of each day based on the DROP Account balance at the end of the previous day and posted monthly on the last calendar day of each month. Effective January 1, 2005, the annual interest rate effective beginning January 1 each year is half of HMEPS' investment return percentage for the prior fiscal year, not less than 2.5% and not greater than 7.5%.

### d. DROP Credits-COLA:

### On or after January 1, 2005:

The Monthly DROP Credit for participants who entered the DROP effective on or before January 1 of the then current year will be increased effective February 1 each year by 3.0%, not compounded.

The Monthly DROP Credit for participants who were first hired on or after January 1, 2005 who entered the DROP effective on or before January 1 of the then current year will be increased effective February 1 each year by 2.0%, not compounded.

e. DROP Account Balance: The sum of a





participant's Monthly DROP (DROP Benefit) Credits, Monthly DROP Credit Adjustments, applicable interest, and employee contributions as applicable.

### 15. DROP Benefit Pay-out

A terminated DROP participant may elect to:

- a. Receive the entire DROP Account Balance in a lump sum.
- b. Receive the DROP Account Balance in periodic payments as approved by the Pension Board.
- c. Receive a portion of the DROP Account balance in a lump sum and the remainder in periodic payments as approved by the Pension Board.
- d. Receive a partial payment of not less than \$1,000, no more than once each ninety (90) days.
- e. Defer election of a payout option until a future date.

### 16. Post DROP Retirement

The Final Pension is the accrued normal retirement benefit as of the effective date of DROP participation, increased with COLAs since DROP entry.

### **Changes in Plan Provisions Since Prior Year**

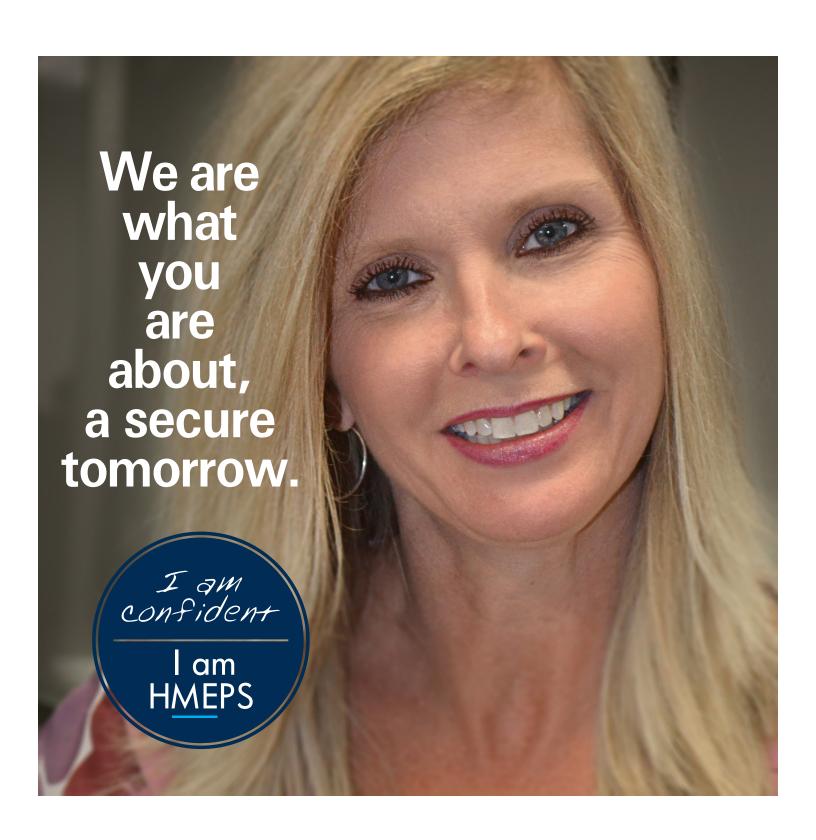
No changes since the prior valuation.

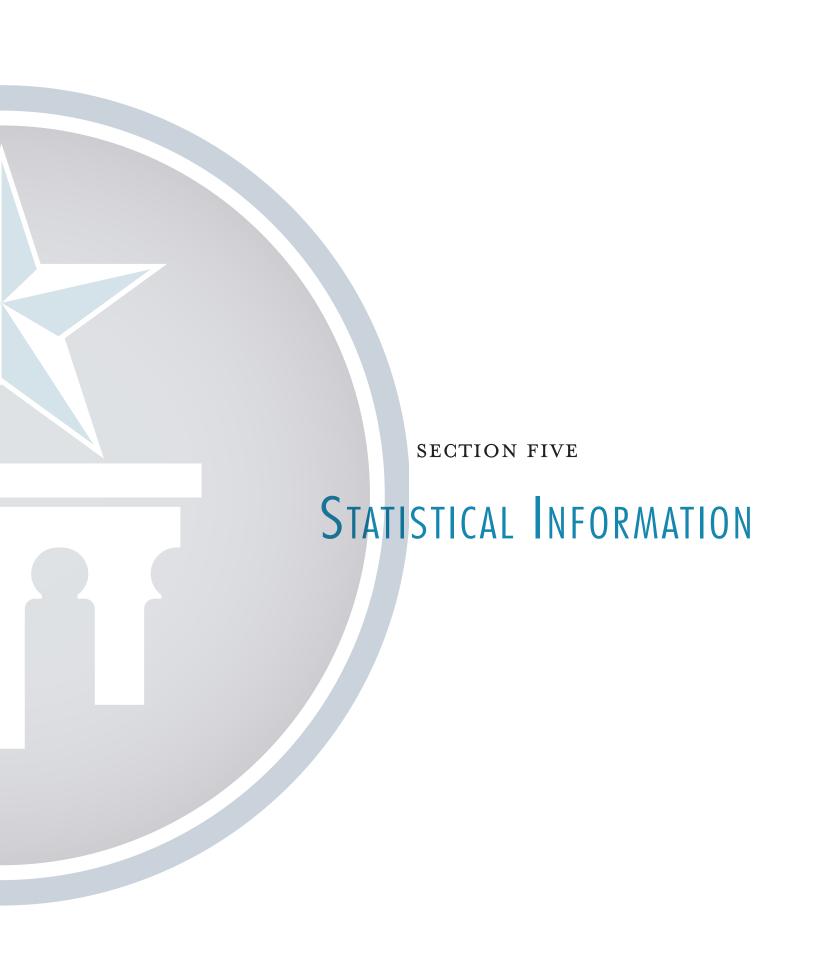
### Other Information

An Independent Actuarial Audit of the July 1, 2013 Actuarial Valuation was performed by Segal Consulting.

Refer to page 5 of the Letter of Transmittal for the Actuarial Audit findings. The Actuarial Audit Executive Summary is available at www.hmeps.org/publications.







### INTRODUCTION

The Statistical section of the Comprehensive Annual Financial Report presents detailed information related to the System's financial statements. The schedules within the Statistical section are classified as Financial Trends and Participant Information. All information was derived from Audited Annual Financials and/or our benefit administration system, and/or the annual actuarial valuations.

### FINANCIAL TRENDS

The Changes in Fiduciary Net Position schedule shows the additions and deductions from fiduciary net position and the resulting changes in fiduciary net position for the ten years ending June 30, 2015.

Additions to Fiduciary Net Position include city and member contributions to the System which are external sources of additions to plan net positions. Additions also include earnings from the System's investment activity and are the System's internal sources of, and

typically the larger component of, additions to plan net positions.

Deductions from Fiducuary Position are primarily comprised of benefit payments and refunds paid to participants.

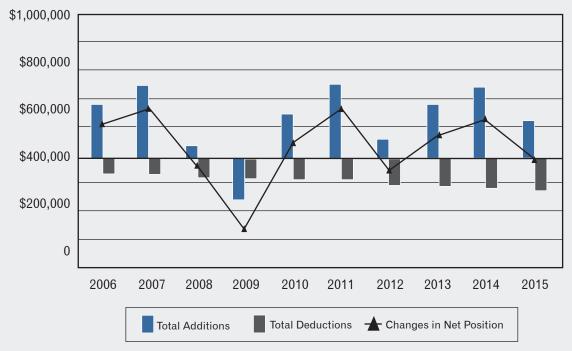
Investment Income Schedule shows the components of net investment and interest income (loss) for the ten years ending June 30, 2015.

### **OPERATING INFORMATION**

Participant data for the last ten years ending June 30, 2014 can be found starting on page 98 and include several schedules regarding benefit payments to participants and participant demographics. The date of the participant information is consistent with the date of the latest actuarial valuation date of July 1, 2014.

### **CHANGES IN FIDUCIARY NET POSITION (IN THOUSANDS)**

### YEARS ENDED JUNE 30



FINANCIAL TRENDS
SCHEDULE OF CHANGES IN FIDUCIARY NET POSITION (\$000)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Additions										
<b>Employer contributions</b>	896'99	70,265	73,272	76,837	82,052	87,285	97,161	111,859	128,274	145,007
Member contributions	21,888	20,966	21,176	20,449	19,736	19,326	18,473	17,041	16,580	16,198
Investment Income	272,766	337,259	(29,133)	(440,298)	195,433	391,095	(11,963)	263,891	351,792	73,854
Other income	26,920	29,031	29,839	489	222	1,185	654	1,246	730	222
Total additions	388,572	457,521	95,154	(342,523)	297,778	498,891	104,325	394,037	497,376	235,616
Deductions										
Benefit payments	154,311	157,716	169,483	180,361	191,048	189,199	200,014	213,178	221,925	234,955
Refund of contributions	1,037	1,398	1,760	1,795	1,285	1,620	2,206	1,266	1,213	1,549
Professional services fees	s 708	883	638	792	802	1,103	1,048	871	297	822
Cost of administration	5,072	5,223	5,837	6,420	6,290	6,020	6,264	6,341	5,818	6,185
Total deduction	161,128	165,220	177,718	189,368	199,428	197,942	209,532	221,656	229,553	243,511
Changes in net position	227,444	292,301	(82,564)	(531,891)	98,350	300,949	(105,207)	172,381	267,823	(7,895)
Net position as of June 30 2,052,296	2,052,296	2,344,597	2,262,033	1,730,142	1,828,492	2,129,441	2,024,234	2,196,616	2,464,439	2,456,544

### **OPERATING INFORMATION**

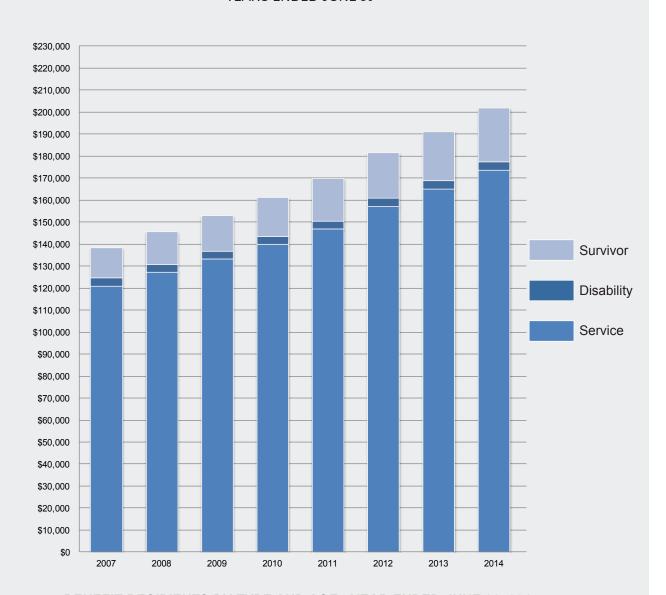
### SCHEDULE OF BENEFIT PARTICIPANTS AND ANNUITIES BY TYPE

Participants by Benefit Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service	5,847	6,017	6,186	6,336	6,482	6,663	7,031	7,258	7,522	7,821
Disability	452	446	428	415	404	398	391	387	373	350
Survivor	1,481	1,508	1,541	1,589	1,640	1,656	1,656	1,782	1,827	1,854
Total Annuity Count	7,780	7,971	8,155	8,340	8,526	8,717	9,078	9,427	9,722	10,025
Inactive Eligible Participants	2,786	2,922	2,931	2,884	2,815	3,178	3,237	3,298	3,305	3,313
Total Eligible for Benefits	10,566	10,893	11,086	11,224	11,341	11,895	12,315	12,725	13,027	13,338
Benefit Payments by Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service	113,510	120,856	127,083	133,209	139,779	146,863	157,214	164,924	173,749	183,613
Disability	3,748	3,707	3,624	3,652	3,650	3,698	3,769	3,864	3,808	3,722
Survivor	12,517	13,654	15,025	16,160	17,724	19,174	20,533	22,383	24,262	25,777
Total Annuity Payments	129,775	138,217	145,732	153,021	161,153	169,735	181,516	191,171	201,819	213,112
Lump Sum Payments	379	313	625	1,067	641	449	156	200	177	201
DROP Payments	24,157	19,186	23,126	26,273	29,254	19,015	18,342	21,807	19,929	21,641
Other Benefit Payments	24,536	19,499	23,751	27,340	29,895	19,464	18,498	22,007	20,106	21,842
Total Benefit Payments	154,311	157,716	169,483	180,361	191,048	189,199	200,014	213,178	221,925	234,954
Refunds of Contributions	1,037	1,398	1,760	1,795	1,285	1,620	2,206	1,266	1,213	1,549
Average Benefit Payments by Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Service	19,413	20,086	20,544	21,024	21,564	22,042	22,360	22,723	23,099	23,477
Disability	8,292	8,312	8,467	8,800	9,035	9,291	9,639	9,984	10,209	10,634
Survivor	8,452	9,054	9,750	10,170	10,807	11,579	12,399	12,561	13,280	13,903
Combined Average Annuity Payments	16.681	17.340	17,870	18.348	18.901	19,472	19,995	976.06	20,759	91.958



### **BENEFIT PAYMENTS BY TYPE (IN THOUSANDS)**

### YEARS ENDED JUNE 30



### BENEFIT RECIPIENTS BY TYPE AND AGE - YEAR ENDED JUNE 30, 2014

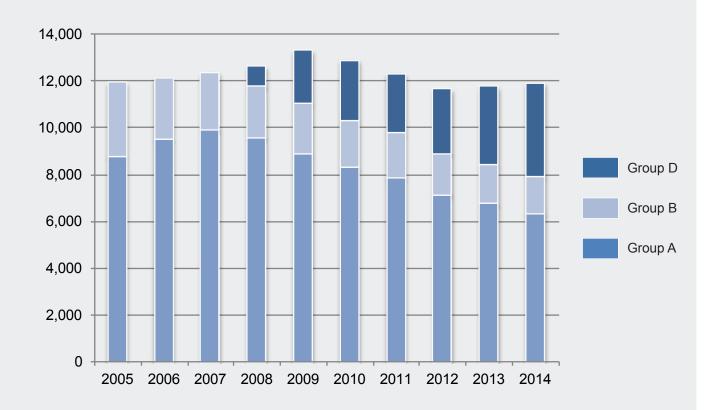
Age on June 30	Service	Disability	Survivor	Total
Under 40	0	1	88	89
40 - 44	0	5	12	17
45 - 49	0	9	21	30
50 - 54	157	29	57	243
55 - 59	783	61	113	957
60 - 64	1478	74	188	1740
65 - 69	1897	68	198	2163
70 - 74	1424	65	243	1732
75 - 79	826	41	226	1093
80 - 84	533	13	216	762
85 <b>&amp; O</b> ver	424	7	332	763
Total	7522	373	1694	9589



### HISTORICAL ACTIVE PARTICIPANT DATA

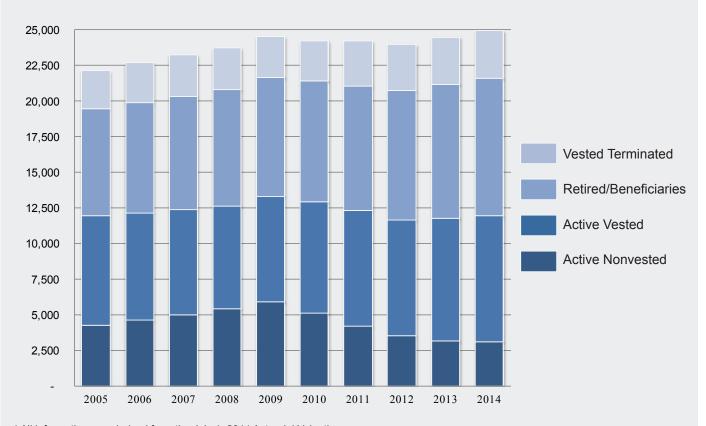
Activa	Vested/Nonvested	

Valuation Date	Group A	Group B	Group D	Number of Participants	Annual Payroll (\$000)	Average Salary (\$)	% Salary Increase
July 1, 2005	8,811	3,163		11,974	404,565	33,787	9.4
July 1, 2006	9,544	2,601		12,145	422,496	34,788	3.0
July 1, 2007	9,947	2,429		12,376	448,925	36,274	4.3
July 1, 2008	9,587	2,195	871	12,653	483,815	38,237	5.4
July 1, 2009	8,906	2,153	2,274	13,333	539,023	40,428	5.7
July 1, 2010	8,323	1,999	2,591	12,913	550,709	42,648	5.5
July 1, 2011	7,857	1,932	2,556	12,345	544,665	44,120	3.5
July 1, 2012	7,167	1,759	2,744	11,670	534,394	45,792	3.8
July 1, 2013	6,777	1,666	3,338	11,781	549,971	46,683	1.9
July 1, 2014	6,366	1,590	3,993	11,949	568,992	47,618	2.0



### HISTORICAL TOTAL MEMBERSHIP DATA AND BAR CHART

Fiscal Year	Active Nonvested	Active Vested	Retired/ Beneficiaries	Vested Terminated	Totals
2005	4,269	7,705	7,523	2,659	22,156
2006	4,621	7,524	7,780	2,782	22,707
2007	5,002	7,374	7,971	2,922	23,269
2008	5,419	7,234	8,155	2,931	23,739
2009	5,941	7,392	8,340	2,884	24,557
2010	5,101	7,812	8,526	2,815	24,254
2011	4,237	8,108	8,717	3,178	24,240
2012	3,512	8,158	9,078	3,237	23,985
2013	3,154	8,627	9,427	3,298	24,506
2014	3,131	8,818	9,685	3,313	24,947



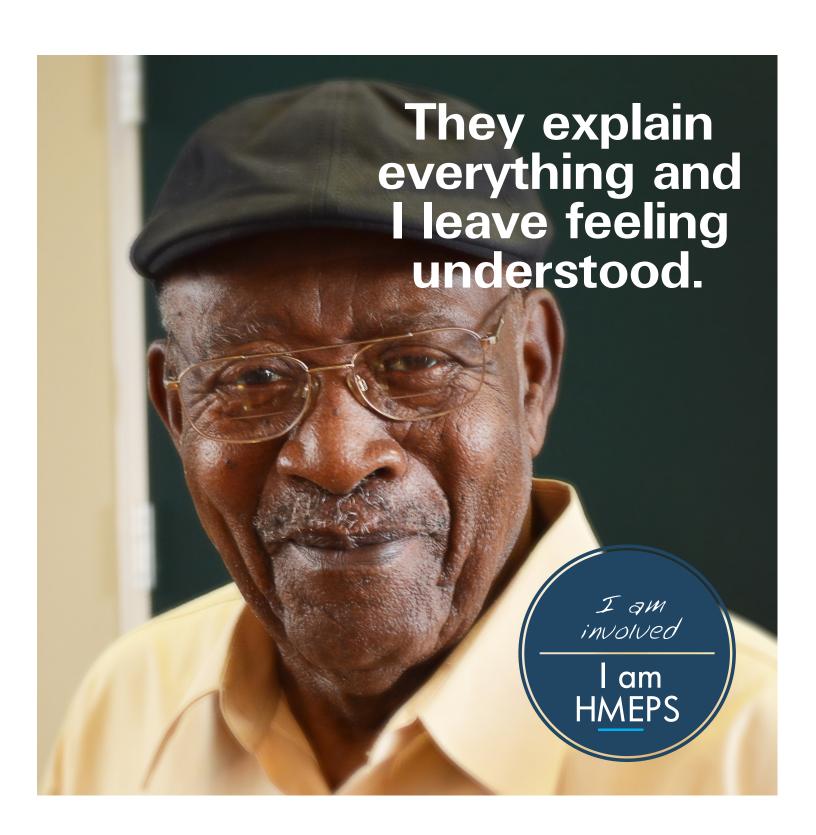
 $<sup>^{\</sup>star}$  All information was derived from the July 1, 2014 Actuarial Valuation.



### AVERAGE BENEFIT PAYMENTS BY YEARS OF CREDITED SERVICE

Members Retiring During Fiscal Years Years of Credited Service All Members 16-20 21-25 26-30 30 +5-10 11-15 2014 \$ Average monthly benefit 582 \$ 1,082 \$ 1.523 2.283 2,695 \$ 3,424 \$ 1,395 \$ 3,229 3.238 3.505 3.741 3,625 4,402 \$ Average monthly salary \$ \$ \$ \$ \$ 3,423 \$ \$ \$ \$ \$ \$ \$ Average DROP balance 92,531 118,155 119,035 276,187 131,517 104,467 153,977 Number of DROP retirees 23 46 72 51 27 220 1 Number of retirees 126 116 123 78 35 4 482 2013 1,083 2,406 2,492 2,936 Average monthly benefit \$ 577 \$ \$ 1,524 \$ \$ \$ 1,450 \$ \$ 3,565 3,503 3,573 Average monthly salary \$ \$ \$ \$ 4,000 \$ 3,648 3,660 3,877 \$ \$ \$ 37,305 \$ Average DROP balance 33,482 96,989 \$ 163,551 \$ 196,720 \$ 70,570 137,474 Number of DROP retirees 2 17 44 59 52 13 187 Number of retirees 110 114 84 31 12 461 113 2012 \$ 548 1,463 2.097 2.775 2,279 1,476 Average monthly benefit \$ 972 \$ \$ \$ \$ \$ \$ \$ 3,123 \$ Average monthly salary \$ 3,319 \$ 3,114 \$ 3,483 \$ 3,544 3,789 3,413 Average DROP balance \$ 28,933 \$ 97,805 \$ 109,125 \$ 172,352 \$ 135,562 \$ \$ 121,920 Number of DROP retirees 19 53 81 72 33 258 Number of retirees 97 194 148 120 58 6 553 2011 Average monthly benefit \$ \$ 925 \$ 1,611 \$ 2.378 \$ 2,310 \$ 2.789 1,486 Average monthly salary \$ 3,474 \$ 3,247 \$ 3,578 \$ 3,794 \$ 3,266 \$ 3,996 \$ 3,505 52,041 97,571 Average DROP balance \$ \$ \$ 181,686 \$ 241,297 \$ 249,370 \$ 320,514 \$ 182,068 Number of DROP retirees 15 27 42 50 15 2 151 91 97 83 35 395 Number of retirees 82 7 2010 \$ \$ Average monthly benefit 572 \$ 1,107 \$ 1,579 \$ 2,631 \$ 3,309 \$ 1,579 \$ \$ \$ 3,796 \$ 4,154 \$ 4,342 \$ 3,769 Average monthly salary 3,512 3,478 Average DROP balance \$ 66,061 \$ 87,798 \$ 174,978 \$ 244,143 \$ 312,750 \$ 181,870 Number of DROP retirees 21 30 34 44 21 150 76 64 32 337 Number of retirees 84 81 2009 \$ 2,320 \$ \$ 2,400 Average monthly benefit 582 881 1,526 1,839 1,290 \$ \$ Average monthly salary 3,278 \$ 3,032 \$ 3,267 \$ 3,166 \$ 3,383 \$ 2,959 3,189 Average DROP balance \$ 42,190 \$ 55,623 \$ 173,415 \$ 164,178 \$ 283,627 \$ 19,301 \$ 140,745 Number of DROP retirees 31 34 50 143 14 13 Number of retirees 76 89 76 86 21 3 351 2,342 2008 \$ Average monthly benefit 532 \$ 1,036 \$ 1,503 \$ \$ 3,721 \$ 1,826 \$ 1,519 2,967 3,169 3,138 3,279 3,956 2,527 3,191 Average monthly salary \$ \$ \$ \$ \$ \$ \$ 37,547 67,218 122,902 155,089 422,202 10,629 137,606 Average DROP balance \$ \$ \$ \$ \$ \$ \$ Number of DROP retirees 38 56 166 12 46 13 1 62 92 88 76 20 340 Number of retirees 2 2007 \$ Average monthly benefit 550 \$ 956 \$ 1,350 \$ 2,042 \$ 3,360 \$ 3,252 \$ 1,354 \$ 2,893 2,958 2,943 3,555 3,476 \$ 2,962 Average monthly salary 2.867 \$ \$ \$ \$ \$ \$ \$ \$ 368,268 \$ 37,590 56,962 \$ 81,073 \$ 135,316 \$ 273,677 107,410 Average DROP balance Number of DROP retirees 26 50 39 51 19 3 188 Number of retirees 81 102 63 73 24 4 347 2006 Average monthly benefit \$ 553 \$ 1,147 \$ 1,608 2,344 2,870 2,725 \$ 1,684 \$ \$ \$ 3,118 \$ \$ 3,243 \$ 3,263 \$ 3,186 \$ \$ 2,812 \$ Average monthly salary 2.906 3.156 \$ \$ \$ \$ 93,836 \$ 126,830 162,450 \$ 217,721 105,088 Average DROP balance 33,642 57,946 \$ Number of DROP retirees 22 56 92 31 248 43 4 Number of retirees 74 91 93 132 40 5 435 2005 1,715 2,810 1,786 Average monthly benefit \$ 655 993 2,106 2,898 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ 2,927 Average monthly salary 2,930 2,847 \$ 3,069 \$ 2,807 \$ 3,084 2,979 Average DROP balance \$ 31,291 \$ 46,690 \$ 81,834 88,719 167,759 \$ 250,593 93,754 Number of DROP retirees 42 81 140 221 97 13 594 138 173 275 116 14 805 Number of retirees 89 10 Years Average monthly benefit \$ 574 1.018 \$ 1.540 2.247 2.866 \$ 2,453 1,502 Average monthly salary \$ 3,214 \$ 3,183 \$ 3,356 \$ 3,449 \$ 3,569 3,027 \$ 3,318 6/30/2014 Average DROP balance \$ 45,531 \$ 78,276 \$ 130,144 \$ 180,083 \$ 220,949 \$ 132,880 \$ 136,191 Avg Number of DROP retirees 21 44 60 74 28 3 231 Average Number of retirees 88 104 105 107 41 6 451 Total number of retirees 881 1,038 1,050 1,071 412 57 4,506







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