## Houston Municipal Employ=es

Comprehensive Annual Financial iteporje in ior the Year Ended June 30, 200:

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A Component Unit of the City of Houston, Texas


# HOUSTON MUNICIPAL EMPLOYEES PENSION SYSTEM 

A COMPONENT UNIT OF THE CITY OF HOUSTON, TEXAS<br>COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE YEAR ENDED JUNE 30, 2009<br>PREPARED BY THE PENSION ADMINISTRATION STAFF DAVID L. LONG, EXECUTIVE DIRECTOR<br>HOUSTON MUNICIPAL EMPLOYEES PENSION SYSTEM 1111 BAGBY, SUITE 2450, HOUSTON, TEXAS 77002-2555<br>713-595-0100<br>WWW.HMEPS.ORG

## Integity: Expatise Sevice Were Here For You



Gregory R. Dufour, Department of Health \& Human Services

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## SECTION 1: INTRODUCTION




## Board of Trustees

Elected and Appointed Trustees

Sherry Mose, Chairman
Mark V. Mancuso, Vice Chairman
Lonnie Vara, Secretary
Terrence Ardis
George Bravenec
Lenard Polk
Barbara Chelette, Appointed

City Appointed Trustees
Richard Badger
Gilbert Andrew Garcia Justo P. Gonzalez Craig T. Mason

David L. Long, Executive Director

## HOUSTON MUNICIPAL EMPLOYEES

 PENSION SYSTEM1111 BAGBY, SUITE 2450
HOUSTON, TEXAS 77002-2555 713-595-0100 FAX 713-650-1961

Michelle Mitchell
Director of Finance
City of Houston, Texas
P.O. Box 1562

Houston, Texas 77251

Dear Ms. Mitchell:

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 year ended June 30, 2009. 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 and presented in accordance with the Governmental Accounting Standards Board (GASB).

The System's independent auditors have audited the financial statements and issued an unqualified opinion as of June 30, 2009 and 2008. 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 assets 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 all of 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, capable personnel, and the organizational structure itself. 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 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 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 (Group 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 fulltime 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 11member 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.

## 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. The System's actuary assumes that the System's investments will return 8.5 percent each year. The differences between the assumed and actual investment return are phased in (smoothed), yielding an actuarial value of assets. The smoothing prevents extreme volatility in employer contribution rates due to short-term fluctuations in the investment markets. Under the terms of the 2007 Fourth Amendment to the Meet and Confer Agreement, all of the deferred gains/(losses) from 2006 and prior were fully recognized as of July 1, 2007. Only the 2007 investment gain and the 2008 investment loss have the normal deferral that is part of the actuarial value of assets (AVA) methodology. In future years the number of deferral bases will grow until we are once again recognizing prior years' excess investment gains/losses over five years.

The funded ratio, the ratio of the AVAto the actuarial accrued liability (AAL), is a standard measure of a plan's funded status. In the absence of benefit improvements, a plan's funded ratio should increase over time, until it reaches $100 \%$. As of July 1, 2008, the most recent actuarial valuation, the System's AVA and AAL were \$2.31 billion and $\$ 2.19$ billion, respectively, resulting in a funded ratio of $70 \%$. This funded ratio is consistent with the funded ratio as of July 1, 2007, which was also $70 \%$.

A historical perspective of the System's funding levels is presented in the Schedule of Funding Progress in the Required Supplementary Information in the Financial Section of this report.

## 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.

During fiscal year 2009 the System requested a determination letter based on the current plan provisions and is awaiting a response from the Internal Revenue Service.

## City Note

As part of the Meet and Confer Agreement, on November 10, 2004 the City issued the System a $\$ 300$ million pension obligation note (the Note) maturing on December 1, 2033. The Note was issued to fulfill an obligation under the 2004 Meet and Confer Agreement, and was agreed upon in order to improve the System's long-term funding outlook. The Meet and Confer Agreement also authorizes the City to prepay the Note and Deferred Interest Certificates in whole or in part.

During fiscal year 2009, the City notified the System of its intent to prepay in full the Note, the Deferred Interest Certificates and any and all accrued interest. On January 8, 2009, the City prepaid the Note in the amount of $\$ 381$ million, which is equal to the sum of the principal amount of the Note, the amount of Deferred Interest Certificates, and all accrued interest to the date of prepayment.

## Market Environment

The 12-month period ending June 30, 2009, witnessed unprecedented turmoil in the financial markets, which produced extreme market volatility. Throughout this period, the market dealt with financial institution failures, residential real estate devaluation, hedge fund fraud and redemptions, economic recession, U.S. government bailouts and systematic de-leveraging. Consequently, the lack of investor appetite for risk created an environment where virtually all equity markets around the world produced double-digit declines during the fourth quarter of 2008. The only segments of the markets to offer positive returns during that three-month period were cash, U.S. Treasuries and developed market sovereign bonds. During the fourth quarter of 2008, the U.S. equity market, as represented by the Wilshire 5000 Index, was down $22.9 \%$, its worst quarterly return since the fourth quarter 1987. The U.S. equity market was
down $37.2 \%$ in 2008, its worst calendar-year return since 1931. The U.S. investment-grade fixed income market, as represented by the Barclays Capital U.S. Aggregate Bond Index, was up 4.6\% for the fourth quarter and 5.2\% for the year.

By June 30, 2009, the credit markets showed signs of health, consumer confidence began to rebound and the U.S. equity market rallied up 35\% from its lows in March 2009. After months of unprecedented stimulus by the U.S. Federal Reserve and other developed central banks around the globe, the risk of a deflationary spiral appears to be thwarted. However, the markets now face a continued challenge of negative economic news, with anemic economic growth, U.S. unemployment exceeding $10 \%$ and real estate prices that continue to decline. While inflation in the near-term does not appear to be a problem, there is concern in the U.S. that the significant expansion of the Federal Reserve balance sheet and government spending may translate into higher inflation in the longer term.

Throughout the market declines of 2008, System's investment portfolio participated in the sell-off, but not as severely as most of its peers. Likewise, during the market recovery experienced in the first half of 2009, the System's investment portfolio posted attractive positive returns, but not as high as others. Through the efforts of the Board over the preceding 10 years, the System's investment portfolio is more broadly diversified than most public pension plans, and consequently exhibits less volatility, particularly during extreme market environments like that experienced during the 12 -month period ending June 30, 2009. For the 2009 fiscal year, the System investment portfolio returned -16.02\%. While this return is less than the actuarial assumed rate of $8.5 \%$, it exceeds the return of $86 \%$ of its public fund peers, as defined by the Wilshire Associates Public Fund universe. Over longer time periods, 5-, 7- and 10-years, System investment performance exceeds that of $99 \%$ of its peers. During the 10 -year period ending June 30, 2009, the System annualized return is $6.14 \%$, while the median public fund's annualized return is $3.08 \%$. This $3.06 \%$ out-performance over the previous 10-year period has added over $\$ 500$ million to the System.

## Major Current and Future Initiatives

## Member Services

Customer service is a critical element of the System's goals and is the driving force behind many of the service improvements implemented during fiscal year 2009. A core duty of the System is to process benefit checks for retirees and the System delivered on that responsibility even during the harsh physical conditions of Hurricane Ike. Overall, the System processed more than 96,000 annual payments totaling more than $\$ 180$ million in lump-sum and monthly retirement benefit payments during fiscal year 2009. The System also maintained continuity of services throughout the Hurricane Ike disaster in September 2008. Payments were processed and delivered to participants and System employees were on hand to help participants with any problem or question they had during that crisis.

Throughout the year, the System placed particular emphasis on increasing our benefit and financial counseling outreach efforts to active participants and retirees. The System added a new Certified Financial Planner ${ }^{\text {TM }}$ to meet with and assist participants with benefit options, retirement and general financial counseling and to develop and maintain a participant education program.

The financial counselor meets with participants and their immediate families to offer information regarding retirement planning, investments, life insurance, education planning, Social Security, pension, DROP and other financial issues. This is a free service designed to provide objective, unbiased, professional financial coaching to the System's participants.

## Technology

The System's operating efforts could not be attained without the effective management of technology. The Administration Information System (AIS), the System's proprietary program for participant data, continues to undergo enhancements that provide additional ease and efficiency to the process of servicing participants.

The System also improved its payroll representative online services. The existing cumbersome and time-
consuming typewriter forms were replaced with a secure online network of up-to-date forms that City payroll representatives can complete on the computer and send electronically to the System.

The new e-records system also has an online library that provides a standardized checklist to help City payroll and Human Resource representatives gather the right information for each application.

## Investments

During fiscal year 2009, the System, with the assistance of its general investment consultant, Wilshire Associates, conducted a comprehensive asset/liability study. The resulting new asset allocation policy was adopted on October 1, 2008, and includes the following changes:
i. Decreased allocation to U.S. Equity from 30\% to $20 \%$ to match allocation to Non-U.S. Equity.
ii. Segregated Real Assets allocation into Real Estate allocation (12\%) and Inflation-Linked allocation (5\%). The total exposure to these two asset classes increased from $15 \%$ to a combined $17 \%$.
iii. Segregated Alternative Investments allocation into Private Equity allocation (18\%) and Absolute Return (5\%). The total exposure to these two asset classes increased from $15 \%$ to a combined $23 \%$.

The new asset allocation is designed to manage risk by moving a segment of the portfolio away from public market securities into private market or alternative strategies. The implementation process is anticipated to be completed in approximately 24 to 30 months.

In addition, during fiscal year 2009, the System received approximately $\$ 381$ million from the City of Houston for prepayment of the outstanding Pension Obligation Note. The proceeds from the prepayment were applied to the System's asset allocation in the early months of 2009.

In the upcoming fiscal year, the System will continue to implement the changes warranted by the current asset allocation study. This includes continuing efforts to identify attractive private equity managers and absolute return managers.

## Subsequent Events

## Financial Market

Subsequent to year-end, there has been improvement in the conditions in the financial markets. The System's portfolio has recovered part of the losses sustained in fiscal year 2009. As of September 30, 2009, the portfolio return is up approximately $10 \%$ from fiscal year end. With continued improvement, the System looks forward to further gains. The System's Board and management continue to monitor the portfolio and take action as deemed appropriate.

## Board Governance

In September 2009, the City of Houston City Council appointed Justo P. Gonzalez to the System's Board of Trustees.

## Certificate of Achievement for Excellence in

## Financial Reporting

The Government Finance Officers Association (GFOA) of the United States and Canada awarded its "Certificate of Achievement for Excellence in Financial Reporting" to the System for its Comprehensive Annual Financial Report for the fiscal year ended June 30, 2008. The Certificate of Achievement is the highest form of recognition in the area of governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a governmental entity and its management. The award and a detailed description thereof are displayed on page 8 in the Introductory Section of this CAFR.

## 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 State Pension Review Board, the GFOA, and other interested parties who may from time to time request it.

## In Closing...

The System's experienced team of in-house and outside experts guided us through an extremely tumultuous year. That expertise and hard work resulted in the System finishing the fiscal year with its investment performance in the top 14 percent of the Wilshire public fund peer universe. This is a proud accomplishment for the System, whose employees have worked tirelessly throughout this economic crisis to serve participants and protect and grow the System's investment portfolio. We are here for you.

Integrity. Expertise. Service.


Sherry Mose
Chairman


David L. Long
Executive Director



Lonnie Vara Secretary


Terrence Ardis Elected Trustee


Richard Badger Council Appointee


Lenard Polk Elected Trustee


Gilbert Andrew Garcia Controller Appointee


David L. Long Executive Director


Barbara Chelette Appointed Trustee


Craig T. Mason Mayoral Appointee

## Administrative Organization

Audit Committee
Budget and Oversight Committee
Disability Committee
External Affairs Committee Investment Committee Personnel and Procedures Committee

## Executive Director

## Chief Investment Officer

Investment Managers' Services
Performance Measurement Market Research

## Administrative

Benefit Administration Services
Member Services
Accounting
Financial Reporting

## Information Systems

[^0]Communications

The Government Finance Officers Association 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, 2008. 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 15 consecutive years (fiscal years ended June 30, 1994 through 2008). 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.

> Certificate of Achievement for Excellence in Financial Reporting

> Presented to

Houston Municipal Employees Pension System

Texas
For its Comprehensive Annual
Financial Report for the Fiscal Year Ended

June 30, 2008
A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting
and financial reporting.


Executive Director

## Consultants (Fiscal Year 2009)

## Actuary

Gabriel, Roeder, Smith \& Company

## Auditor

MFR, P.C. (formerly Mir, Fox \& Rodriguez, P.C.)

## Board Medical Advisor

Charles Schuhmacher, M.D.

## Consulting Services

Ennis, Knupp \& Associates, Inc.
TCG Solutions

## Database Services

Pension Benefits Information

## Governmental Representation

HillCo Partners, Inc.
Locke, Lord, Bissell \& Liddell, L.L.P

## Investment Consultants

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

## Investment Performance Analysis

Wilshire Associates, Inc.
State Street Bank and Trust Co.

## Legal Counsel

Baker Botts, L.L.P.
Locke, Lord, Bissell \& Lidell, L.L.P.
Purrington, Moody, Weil

## Master Custodian/Trustee

State Street Bank and Trust Co.

## Investment Managers (Fiscal Year 2009)

## US Equity

Barclays Global Investors, N.A.
Benchmark Plus Partners, L.L.C.
DePrince, Race \& Zollo, Inc.
EARNEST Partners, L.L.C.
INTECH Investment Management, L.L.C.
Neumeier Investment Counsel, L.L.C.
Piedmont Investment Advisors, L.L.C.
Profit Investment Management
Robb Evans \& Associates, L.L.C.
State Street Global Advisors
T. Rowe Price Associates, Inc.

## Non-U.S. Equity

Axiom International
Barclays Global Investors, N.A.
Brandes Investment Partners

## Fixed Income

Barclays Global Investors, N.A. DDJ Capital Management, L.L.C.
Loomis, Sayles \& Co.
Smith Graham \& Co.
Western Asset Management
Whippoorwill Associates, Inc.
Private Equity
Adams Street Partners
Brera Capital Partners, L.L.C.
Brockway Moran \& Partners, Inc.
Goldman, Sachs \& Co.
HarbourVest Partners, L.L.C.
Hellman \& Friedman, L.L.C.
J.W. Childs Associates, L.P.

Lexington Partners, Inc.
Matlin Patterson Global Advisors

Oaktree Capital Management
Pacven Walden Management Co., LTD.
Pegasus Investors, L.P.
Pharos Capital Partners, L.L.C.
Platinum Equity Capital Partners
Sun Capital Partners, Inc.
The Carlyle Group
The Jordan Company, L.P.
TrueBridge Capital Partners
TSG Capital Group, L.L.C.
Valor Equity Partners

## Absolute Return

Angelo, Gordon \& Co.
Highland Capital Management

## Real Estate

Aetos Capital
CB Richard Ellis Investors
Crow Holdings
Fortress Investment Group, L.L.C.
Goldman, Sachs \& Co.
Grove International Partners
Lone Star U.S. Acquisitions, L.L.C.
Morgan Stanley Asset Management, Inc.
Olympus Real Estate Corp.
Prudential Strategic Investment Corp.
RREEF America L.L.C.
State Street Global Advisors

## Inflation-Linked

BlackRock, Inc.
Global Forest Partners, L.P.
Oaktree Capital Management
Quantum Energy Partners
The Carlyle Group


Lisa Groves, Department of Health \& Human Services

## SECTION 2: FINANCIAL INFORMATION

## An Overview

The Audited Financial Statements and the accompanying Independent Auditors' Report included in this CAFR were approved by the System's Board of Trustees (the Board) in its meeting of October 29, 2009. The audit of the System's financial statements was conducted in accordance with generally accepted auditing standards (GAAS). The Independent Auditors' Report is based on that audit, and it is intended to give reasonable assurance to users of the System's financial statements that those financial statements are free of material misstatement when taken as a whole and that they present fairly the financial position and results of operations of the System at the times and for the periods reported. The audit gives reasonable assurance to the Board and participants of the System that the System's assets are adequately safeguarded and that its financial transactions are properly authorized and recorded.

The financial statements provide a comprehensive overview of the financial position of the System as of June 30, 2009 and June 30, 2008 and the results of its operation for the years then ended. The financial statements are presented in conformity with accounting and reporting standards of the Governmental Accounting Standards Board (GASB).

The System is responsible for the accuracy of its financial statements and the completeness and fairness of their presentation. The auditors are responsible for issuing an opinion on those financial statements when taken as a whole.

The financial statements consist of Statements of Plan Net Assets, Statements of Changes in Plan Net Assets, Notes to the Basic Financial Statements, and Supplemental Schedules.

## Statements of Plan Net Assets

The Statements of Plan Net Assets present the financial position of the System as of the end of the fiscal years reported. They are statements of the System's assets, liabilities, and net assets held in trust for pension benefits. An asset is anything having commercial economic
or exchange value. Assets include cash, receivables (interest and dividends earned by the investments of the System and employee member and employer contributions), investment, collateral on securities lending arrangements, and furniture, fixtures and equipment. System liabilities include money reserves for participants who are entitled to benefits and obligations for professional services the System has used - but for which payment has not been made.

## Statements of Changes In Plan Net Assets

The Statements of Changes in Plan Net Assets include additions to the System's assets and deductions from them and the increase or decrease in plan net assets. Additions consist of contributions, investment income, and other income. Deductions are benefit payments, fees for professional services and costs of administering the programs of the System. The net of additions and deductions represents the change, for the years presented, in net assets held in trust for pension benefits.

## Notes to Financial Statements

Notes to the basic financial statements contain disclosures required by generally accepted accounting principles and GASB reporting standards. Required disclosures include a summary description of the pension plan, significant accounting policies, information about the System's funding status and progress toward achieving its funding objectives, information about the System's investments and investing activities, and information about the System's commitments.

## Supplemental Information

Supplemental Schedules provide information required by the GASB which include the supplementary 10-year trend information. These charts show the progress toward reaching the goal of being totally funded, as well as sources of revenues and types of expenses of the System during the fiscal year.

Other supplementary information provides additional information for analysis.

## INDEPENDENT AUDITORS' REPORT

Board of Trustees<br>Houston Municipal Employees Pension System:

We have audited the accompanying statements of plan net assets of the Houston Municipal Employees Pension System (the System) as of June 30, 2009 and 2008, and the related statements of changes in plan net assets for the years then ended. These basic financial statements and the schedules referred to below are the responsibility of the System's management. 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. 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 includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the basic financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall basic financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.
In our opinion, the basic financial statements referred to above present fairly, in all material respects, information regarding the Plan's net assets available for benefits as of June 30, 2009, and changes therein for the year then ended and its financial status as of June 30, 2008, and the changes therein for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Management's discussion and analysis (MD\&A) and the required supplemental information (schedules 1, 2 and 3) are not a required part of the basic financial statements but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the MD\&A and required supplemental information. However, we did not audit the information and express no opinion on it.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The other supplemental information (schedules 4,5 , and 6 ) is presented for purposes of additional analysis and is not a required part of the System's basic financial statements. This information has been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

October 29, 2009

One Riverway, Suite 1900
Houston, TX 77056
Thute. Pa
Off. 713-622-1120
Fax 713-961-0625

## 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 ended June 30, 2009 and 2008. 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.

## System's Basic Financial Statements

There are two basic financial statements presented herewith. The Statements of Plan Net Assets as of June 30, 2009 and 2008 indicate the net assets available to pay future payments and give a snapshot at a particular point in time. The Statements of Changes in Plan Net Assets for the fiscal years ended June 30, 2009 and 2008 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 22 to 38 of this report.

## Supplemental Information

The required supplemental information consists of:
Schedule 1 - Schedule of Funding Progress - this provides historical trend information that contributes to the understanding of the changes in the funded status of the System over time. 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 System over a number of years. 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 Employer Contributions - this provides historical trend information of required annual employer contributions and the contributions actually made in relation to this requirement over time.

Schedule 3 - Schedule of Funding Progress for OPEBthis provides historical trend information that contributes to the understanding of the changes in the funded status of the other postemployment benefits (OPEB) over time. 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 OPEB over a number of years. It should be noted though that actuarial information is based upon assumptions about future events, and therefore, the figures presented are estimates.

The other supplemental information consists of:
Schedule 4 - Investment Summary - this lists the System's investments by type presented both at cost and fair market value.

Schedule 5 - Investment Services, Professional Services, and Administration Expenses - this provides more information for purposes of more detailed analysis.

## COMPARATIVE FINANCIAL STATEMENTS

Below is a condensed and comparative summary of major classes of Plan Net Assets at fair value.
(In Thousands of Dollars)

| Assets | $\begin{gathered} \text { June } 30, \\ \underline{2009} \end{gathered}$ | $\begin{gathered} \text { June } 30, \\ \underline{2008} \end{gathered}$ | $\begin{gathered} \text { June 30, } \\ \underline{2007} \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Cash and equivalents | \$405 | 956 | 3,148 |
| Investments | 1,744,241 | 1,886,044 | 2,021,243 |
| Receivables on asset sales | 7,796 | 52,292 | 14,714 |
| Other receivables | 6,267 | 77,482 | 59,207 |
| Note receivable - City of Houston | - | 300,000 | 300,000 |
| Collateral on securities lending | 81,757 | 141,334 | 132,467 |
| Furniture, fixtures and equipment, net | 471 | 419 | 419 |
| Total assets | 1,840,937 | 2,458,527 | 2,531,198 |
| Liabilities |  |  |  |
| Payable on asset purchases | 22,342 | 47,975 | 45,727 |
| Accrued liabilities | 6,696 | 7,185 | 8,407 |
| Collateral on securities lending | 81,757 | 141,334 | 132,467 |
| Total liabilities | 110,795 | 196,494 | 186,601 |
| Plan net assets | \$1,730,142 | 2,262,033 | 2,344,597 |

Below is a comparative summary of Statements of Changes in Plan Net Assets available for pension benefits. (In Thousands of dollars)

| Additions | Fiscal <br> Year $\underline{2009}$ | Fiscal <br> Year <br> 2008 | Fiscal <br> Year <br> $\underline{2007}$ |
| :---: | :---: | :---: | :---: |
| Contributions | \$97,286 | 94,447 | 91,231 |
| Investment and interest income, net | - | 73 | 365,105 |
| Other income | 489 | 634 | 1,185 |
| Total additions | 97,775 | 95,154 | 457,521 |
| Deductions |  |  |  |
| Investment and interest income, net | 440,299 |  |  |
| Benefits paid | 180,361 | 169,482 | 157,716 |
| Contribution refunds | 1,795 | 1,760 | 1,398 |
| Administration expenses and professional fees | 7,211 | 6,476 | 6,106 |
| Total deductions | 629,666 | 177,718 | 165,220 |
| Net (decrease) increase in plan net assets | $(531,891)$ | $(82,564)$ | 292,301 |
| Plan net assets, prior year | 2,262,033 | 2,344,597 | 2,052,296 |
| Plan net assets, current year | \$1,730,142 | 2,262,033 | 2,344,597 |

Schedule 6 - Summary of Costs of Investment and Professional Services - this provides more information for purposes of more detailed analysis.

FINANCIAL HIGHLIGHTS (In Thousands of Dollars,

## Unless Otherwise Noted)

- The System received $\$ 20,449$ and $\$ 21,176$ during fiscal years 2009 and 2008, respectively, in employee contributions from about 9,600 Group A active participants. For fiscal years 2009 and 2008, the contributions represent 5\% of the employee's qualifying base salary. Total employee contributions slightly decreased by $\$ 727$ or $3 \%$ in fiscal year 2009 compared to fiscal year 2008.
- The City of Houston's (the City) contributions during fiscal years 2009 and 2008 represent the budgeted contributions. During fiscal years 2009 and 2008, the System received cash contributions from the City of $\$ 76,837$ and $\$ 73,272$ (net of contributions to the replacement benefit plan of $\$ 1,663$ and $\$ 1,728$ for fiscal years 2009 and 2008, respectively).
- The net investment and interest income of the System was $(\$ 440,299)$ during fiscal year 2009 compared to $\$ 73$ during fiscal year 2008, which is a decrease of \$440,372 mainly as a result of depreciation on investments. The investment and interest income of the System consists of:
- Earnings from limited partnerships and real estate trusts decreased from $\$ 13,424$ to $\$ 4,922$ with a corresponding decrease in realized (losses) gains on investments of $283 \%$. It is the System's policy to adjust the carrying value of limited partnerships and real estate trusts during their holding period based on the general partner's direction. The total investment (losses) gains associated with these holdings consist of realized gains and unrealized appreciation/ (depreciation).
- Benefit payments increased to $\$ 180,361$ during fiscal year 2009 compared to $\$ 169,482$ during fiscal year 2008. Normal retirement pension benefits amounted to $\$ 132,688$ (5\% increase from fiscal year 2008), which accounted for $74 \%$ of the total benefit payments for fiscal year 2009. There were 8,789 participants that received benefits for fiscal year 2009 compared to 8,617 participants in 2008. These numbers represent a 2\% increase in fiscal year 2009 and a slight increase for the fiscal year 2008.
- Distributions to DROP (Deferred Retirement Option Plan) participants amounted to $\$ 25,981$ or $14.40 \%$ of the total benefit payments during fiscal year 2009 compared to $14.14 \%$ of the total during fiscal year 2008. The amount of DROP distributions increased by $12 \%$ in fiscal year 2009. The number of DROP participants receiving distributions as of June 30

|  |  | Fiscal |  |
| :---: | :---: | :---: | :---: |
|  | Year | Year |  |
|  | 2009 | 2008 | Change |
| Interest | \$26,827* | 42,659* | $(15,832)$ |
| Dividends | 11,321 | 14,381 | $(3,060)$ |
| Earnings from limited partnerships |  |  |  |
| Realized (losses) gains on investments | $(103,871)$ | 56,883 | $(160,754)$ |
| Change in unrealized losses on investments | $(375,461)$ | $(121,759)$ | $(253,702)$ |
| Net proceeds from lending securities | 1,069 | 1,025 | 44 |
| Less cost of investment services | $(5,106)$ | $(6,540)$ | 1,434 |
| Investment and interest (loss) income, net | \$(440,299) | 73 | $(440,372)$ |

[^1]
## FINANCIAL HIGHLIGHTS (In Thousands of Dollars,

 Unless Otherwise Noted) con'tdecreased to 318 in 2009 compared to 328 in 2008 or a $3 \%$ decrease.

- Benefit payments exceeded total employee plus employer cash contributions by $\$ 83,075$ during fiscal year 2009 and by \$75,035 during fiscal year 2008.
- Costs of administering the benefit programs of the System, including professional fees, increased to \$7,211 for fiscal year 2009 from \$6,476 for fiscal year 2008, for over 25,000 participants.
- Net assets were $\$ 1,730,142$, a decrease of $\$ 531,891$ during fiscal year 2009 compared to a decrease of $\$ 82,564$ in 2008. Fiscal year 2008 reflected the $\$ 300$ million note receivable from the City.

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 end 2009 and 2008 is $\$ 471$ and $\$ 419$, respectively.

The year ended June 30, 2009 is a year we will not soon forget. Virtually every major world equity index had losses of $20 \%$ or more. To say the last year was a challenging environment for investors to earn meaningful investment returns in the world equity markets would be a gross understatement. Among the most followed markets, emerging market equities, as reflected by the MSCl Emerging Markets Index, was down by $28.1 \%$, with the developed international markets, as measured by the MSCI EAFE Index, down by 31.4\%. The US equity market, as defined by the S\&P 500 Index, fared slightly better dropping $26.2 \%$. Within the US equity market, growth stocks outperformed value stocks, down 24.5\% versus down $28.7 \%$, as measured by the Russell 3000 Value and Russell 3000 Growth indices. And, US smallcap stocks outperformed the US large-cap stocks, down
25.2\% versus down 29.0\%, according to the Russell 2000 and Russell 1000 indices.

Bonds provided the most attractive returns for fiscal year 2009. The global investment-grade market, as reflected by the Barclays Global Aggregate Index returned $2.8 \%$, while the US investment-grade market, as defined by the Barclays Aggregate Index returned 6.1\%. Returns within the US market ranged from a high of $7.4 \%$ from long-term US Treasuries (Barclays Long Term Treasury Index) and a low of minus $2.4 \%$ in corporate high yield (Barclays US Corporate High Yield Index).

Like equity markets, real estate markets experienced dramatic declines during fiscal year 2009. Private real estate declined by $19.6 \%$ for the year, as defined by the NCREIF Property Index, while US public real estate dropped by 45.6\% (Wilshire US RESI).

The System's investment portfolio closed its 2009 fiscal year with assets totaling $\$ 1.73$ billion, down from $\$ 1.89$ billion in the prior year. The total investment return for the fiscal year was -16.0\%. The System's performance, including the total fund, each asset class and their corresponding benchmark(s), for fiscal year 2009 and the trailing three- and five-year periods are listed below.

The System's investment performance was -16.0\%, $0.2 \%$ and $6.2 \%$ for the past one-, three- and five-year periods. These results are materially above the System's policy benchmark over the same periods. Relative to its peer group the System continues to post attractive investment returns. As of June 30, 2009, the System ranks in the top 14th and 3rd percentiles, respectively, for the trailing one- and three-year periods, and is the top performing fund over the trailing five- and ten-year periods. The best performing asset classes for the fiscal year 2009 were Cash (+2.4\%) and Fixed Income (+0.4\%). Real Assets (+18.2\%) and Alternative Investments ( $+11.9 \%$ ) were the top two performing asset classes for fiscal year 2008. The Board's philosophy of constructing a well-diversified investment portfolio has continued to produce investment returns materially above its peer group since its adoption over ten years ago. However,

[^2]
## PERFORMANCE OF INVESTMENT CLASSES

| Periods Ended June 30, 2009 | Investment Return |  |  |
| :---: | :---: | :---: | :---: |
|  | FY 2009 | 3-Years | 5-Years |
| Total Portfolio | -16.0\% | 0.2\% | 6.2\% |
| Policy Benchmark | -17.6\% | -2.0\% | 3.5\% |
| Median Public Fund (Wilshire Public Fund Universe) | -19.2\% | -3.2\% | 2.7\% |
| U S Equities | -26.4\% | -9.9\% | -2.6\% |
| Wilshire 5000 Index | -26.4\% | -8.1\% | -1.6\% |
| International Equities | -31.9\% | -5.9\% | 4.2\% |
| MSCI All Country World ex US Index | -30.5\% | -5.4\% | 5.0\% |
| Fixed Income | 0.4\% | 3.9\% | 4.7\% |
| Barclays Aggregate Index | 6.1\% | 6.4\% | 5.0\% |
| Merrill Lynch High Yield Master II Index | -3.5\% | 1.8\% | 4.1\% |
| Real Estate ${ }^{2}$ | -40.4\% | -5.4\% | 8.5\% |
| NCREIF Property Index | -19.6\% | 1.0\% | 7.6\% |
| Private Equity ${ }^{3}$ | -20.9\% | 3.5\% | 10.3\% |
| S\&P 500 Index + 3.0\% | -23.2\% | 1.0\% | 0.7\% |
| Absolute Return | n/a | n/a | n /a |
| LIBOR + 5\% | n/a | n/a | $\mathrm{n} / \mathrm{a}$ |
| Inflation Linked | n/a | n/a | n/a |
| CPI $+5 \%$ | n/a | n/a | n/a |
| Cash | 2.4\% | 4.1\% | 3.8\% |
| 91-Day T-Bill | 1.0\% | 3.2\% | 3.2\% |

[^3]during fiscal year 2009 the System significantly underperformed its actuarial assumed rate of 8.5\%. No degree of diversification could have produced a return approaching $8.5 \%$ as most market indices produced negative rates of return. Of the fixed income indices producing positive rates of return, none exceeded $8.5 \%$.

During fiscal year 2009, the System, and its general consultant Wilshire Associates, conducted a review of the targeted asset allocation policy. As a result, the Board approved and implemented three changes: 1) reduced the target exposure to US equity from $30 \%$ to $20 \%$, 2) divided the Real Asset category into two separate asset classes, Real Estate (12\% target) and Inflation Linked Asset Class, ILAC (5\% target), and 3) divided the Alternative Investments category into two separate asset classes, Private Equity (18\% target) and Absolute Return (5\% target). The target exposures to non-US Equity and Fixed Income remain unchanged at 20\%
each. The System ended fiscal year 2009 with an overweight to US Equity, Non-US Equity, Fixed Income and Cash, and an underweight to Real Estate, Private Equity, Inflation Linked and Absolute Return. The System's actual asset allocation is reflected below in figure 1.

The System's investments in limited partnerships are included in the tables appearing in note 8 . In connection with those investments, the System has remaining

## SYSTEM ASSET ALLOCATION



FIGURE 1
commitments as of June 30, 2009 and 2008 of approximately $\$ 184$ million and $\$ 234$ million, respectively, pursuant to terms of the respective limited partnerships.

## 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, 2009 and 2008, 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.

During Fiscal Year 2009, one of the borrowers participating in the System's securities lending program defaulted on borrowed securities valued at approximately $\$ 4.7$ milIion. Consequently, the Custodian purchased replacement securities on behalf of the System using the collateral described above. This collateral was sufficient to cover this purchase thereby making the System 100\% whole. Moreover, there were no losses during the year resulting from a default of the borrowers or the Custodian. On March 26, 2009, the Board amended its securities lending agreement with its Custodian to clarify responsibilities regarding borrower defaults. 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\%.

## Subsequent Event

Subsequent to year-end, the conditions in the financial markets have been improving. The System's portfolio has recovered part of the losses sustained in the FY09 fiscal year; as of September 30, 2009 it is up approximately $10 \%$ from fiscal year end. With continued improvement, the System looks forward to further gains. The Systems' board and management continue to monitor the portfolio and take action as deemed appropriate.

## CONTACTING THE SYSTEM'S FINANCIAL MANAGEMENT

This financial report is designed to provide our participants, business partners, and taxpayers with a general overview of the System's financial activities. If you have questions about this report or need additional financial information, contact the Director of Administration of the Houston Municipal Employees Pension System at 1111 Bagby, Suite 2450, Houston, Texas 77002.

|  |  | 2009 | 2008 |
| :---: | :---: | :---: | :---: |
| Assets |  |  |  |
| Investments, at fair value: |  |  |  |
| Short-term investment funds (valued at cost) | \$ | 41,292,085 | 50,709,924 |
| Government securities |  | 46,951,260 | 46,189,118 |
| Corporate bonds |  | 134,193,755 | 88,482,458 |
| Capital stocks |  | 435,432,937 | 487,616,910 |
| Commingled funds |  | 586,691,183 | 537,365,408 |
| Real assets |  | 204,875,980 | 338,905,427 |
| Alternative Investments |  | 294,803,721 | 336,774,854 |
| Total investments |  | 1,744,240,921 | 1,886,044,099 |
| Cash and cash equivalents |  | 404,630 | 956,060 |
| Receivables: |  |  |  |
| Receivables on asset sales |  | 7,795,970 | 52,292,069 |
| Receivables on foreign exchanges |  | 1,943,556 | 3,095,563 |
| Note receivable - City of Houston |  | - | 300,000,000 |
| Accrued interest on note receivable - City of Houston |  | - | 69,893,533 |
| Other receivables |  | 4,323,122 | 4,492,591 |
| Total receivables |  | 14,062,648 | 429,773,756 |
| Collateral on securities lending arrangements, at fair value |  | 81,757,191 | 141,334,443 |
| Furniture, fixtures and equipment, net |  | 471,185 | 418,818 |
| Total assets |  | 1,840,936,575 | 2,458,527,176 |

## Liabilities

| Payables on asset purchases | 22,342,272 | 47,974,937 |
| :---: | :---: | :---: |
| Payables on foreign exchanges | 1,945,726 | 3,077,685 |
| Accrued liabilities | 4,688,141 | 4,001,845 |
| Options written | 61,359 | 105,064 |
| Collateral on securities lending arrangements, at fair value | 81,757,191 | 141,334,443 |
| Total liabilities | 110,794,689 | 196,493,974 |
| Plan net assets held in trust for pension benefits | \$1,730,141,886 | 2,262,033,202 |

(A schedule of funding progress for the plan is presented on page 39.)

See accompanying notes to basic financial statements.

|  | 2009 | 2008 |
| :---: | :---: | :---: |
| Additions to plan net assets: |  |  |
| Contributions: |  |  |
| City of Houston | \$ 76,837,216 | 73,271,799 |
| Participants | 20,448,770 | 21,175,733 |
| Total contributions | 97,285,986 | 94,447,532 |
| Other income | 488,864 | 633,941 |
| Total additions to plan net assets | 97,774,850 | 95,081,473 |
| Investment (loss) income: |  |  |
| Interest income - City of Houston note receivable | 15,937,089 | 29,206,117 |
| Interest on bonds and deposits | 10,889,861 | 13,453,101 |
| Dividends | 11,320,967 | 14,381,110 |
| Earnings from limited partnerships and real estate trusts | - 4,922,280 | 13,424,079 |
| Net depreciation on investments | $(479,332,103)$ | $(64,876,697)$ |
| Total investment (loss) income, net | $(436,261,906)$ | 5,587,710 |
| Proceeds from lending securities | 2,452,647 | 7,410,879 |
| Less costs of securities lending | $(1,383,075)$ | $(6,385,747)$ |
| Net proceeds from lending securities | 1,069,572 | 1,025,132 |
| Less costs of investment services | $(5,106,268)$ | (6,539,954) |
| Total investment (loss) income, net | $(440,298,602)$ | 72,888 |
| Deductions from plan net assets: |  |  |
| Benefits paid to participants | 180,361,352 | 169,482,632 |
| Contribution refunds to participants | 1,794,622 | 1,760,026 |
| Professional services | 791,824 | 637,584 |
| Administration expenses | 6,419,766 | 5,838,201 |
| Total deductions from plan net assets | 189,367,564 | 177,718,443 |
| Net (decrease) increase in plan net assets | $(531,891,316)$ | $(82,564,082)$ |
| Plan net assets held in trust for pension benefits: |  |  |
| Beginning of year | 2,262,033,202 | 2,344,597,284 |
| End of year \$1 | \$1,730,141,886 | 2,262,033,202 |

See accompanying notes to basic financial statements.

## 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 multiple-employer defined benefit pension plan 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 local 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) and 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 hired on or after January 1, 2008 automatically become members of a new noncontributory group (Group D) pursuant to the Fourth Amendment to the Meet and Confer Agreement dated June 27, 2007.

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 par-
ticipate 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. At July 1, the System's participants consisted of the following:

|  | $\underline{2008}$ | $\underline{2007}$ |
| :--- | ---: | ---: |
| Retirees and beneficiaries <br> $\quad$ currently receiving benefits | 8,155 | 7,971 |
| Former employees - vested <br> but not yet receiving benefits | 2,931 | 2,922 |
| Former employees - non-vested | 2,799 | 2,491 |
| Vested active participants | 7,234 | 7,374 |
| Non-vested active participants | $\underline{5,419}$ | $\underline{5,002}$ |
| $\quad$ Total participants | $\underline{\underline{26,538}}$ | $\underline{\underline{25,760}}$ |

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

## Contributions

For fiscal year 2009 and 2008, covered active Group A participants were required to contribute $5 \%$ of their qualifying base salary to the System.

The System's Pension Statute provides that the employer contribution to the System be based on a percentage contribution rate multiplied by the combined eligible salaries paid to all members. The percentage contribution rate is based on the results of actuarial valuations made at least every three years, calculated on the basis of an acceptable reserve funding method approved by the Board. Notwithstanding any other provision, the City's minimum percentage contribution rate may not be less than the greater of two times the contribution rate of Group A participants, or $10 \%$. However, under the
terms of the Fourth Amendment to the Meet and Confer Agreement between the Board and the City, dated June 27, 2007, the City agreed to provide funding to the System as follows for the fiscal years 2008, 2009, 2010 and 2011:

|  | Budgeted <br> Contributions |
| :--- | :--- |
| Fiscal year 2008 | $\$ 75.0$ million |
| Fiscal year 2009 | $\$ 78.5$ million |
| Fiscal year 2010 | $\$ 83.5$ million |
| Fiscal year 2011 | $\$ 88.5$ million |

Prior to the current agreement, the original Meet and Confer Agreement between the Board and the City dated September 15, 2004, provided funding to the System for the fiscal years 2005, 2006 and 2007, comprised of budgeted contributions and net proceeds of pension obligation bonds as follows (on a cash basis):

Fiscal year 2005
Fiscal year 2006
Fiscal year 2007

| Budgeted <br> Contributions | Pension Obligation <br> Bonds |
| :--- | :---: |
| $\$ 33$ million | $\$ 33$ million |
| $\$ 36$ million | $\$ 33$ million |
| $\$ 39$ million | $\$ 33$ million |

## 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 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 Group B employed, effective January 1, 2005, and prior to January 1, 2008 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 either:
(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) completed at least 5 years of total credited service and attained 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. The Fourth Amendment to the Meet and Confer Agreement established the $\$ 20,000$ threshold. Prior to this agreement, the maximum amount was $\$ 10,000$. 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 non-service 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 five 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 five 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 ben-
efit with no survivor benefit. If a Group D participant with at least five years of credited service elects a normal benefit, no death or survivor benefit is payable. If a Group $D$ participant with at least five years of credited service makes no optional annuity election, 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.

In order to qualify for survivor benefits, if applicable, 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

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 2004 Meet and Confer Agreement, the DROP interest rate will be equal to half the return on the System's investment 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 DROP Entry Date.
Effective September 1, 1999, the DROP Entry Date may precede DROP Election Date. However, 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 retirement for reasons other than death or disability 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 five years of credited service.

## 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 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 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 and 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. Mortgages are valued on the basis of future principal and interest payments, and are discounted at prevailing interest rates for similar instruments. The fair value of limited partnerships and real estate trusts is based on independent appraisals or recent financial results. Short-term investments are carried at cost, which approximates fair value. Investments that do not have an established market are reported at estimated 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 depreciation/appreciation 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

System employees earn paid leave (vacation and sick leave) based on years of service and may accumulate them subject to certain limitations and 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 statement of plan net assets 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.

## 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.

## 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.

## New Accounting Pronouncements

GASB Statement No. 53, Accounting and Financial Reporting for Derivative Instruments.
This statement addresses the recognition, measurement, and disclosure of information regarding derivative instruments entered into by state and local governments. Derivative instruments are often complex financial arrangements used by governments to manage specific risks or to make investments. By entering into these arrangements, governments receive and make payments based on market prices without actually entering into the related financial or commodity transactions. Derivative instruments associated with changing financial and commodity prices result in changing cash flows and fair values that can be used as effective
risk management or investment tools. Derivative instruments, however, also can expose governments to significant risks and liabilities. Common types of derivative instruments used by governments include interest rate and commodity swaps, interest rate locks, options (caps, floors, and collars), swaptions, forward contracts, and futures contracts. The requirements of this statement are effective for financial statements for periods beginning after June 15, 2009. Management does not believe that the adoption of GASB Statement No. 53 will have a material effect on the System's financial statements in fiscal year 2010 when adopted.

GASB Statement No. 51, Accounting and Financial Reporting for Intangible Assets

The objective of this Statement is to establish accounting and financial reporting requirements for intangible assets. This Statement requires that all intangible assets not specifically excluded by its scope provisions be classified as capital assets. There are many different types of assets that may be considered intangible assets, including patents, trademarks, and computer software. Intangible assets are referred to in the description of capital assets in Statement No. 34, Basic Financial Statements-and Management's Discussion and Analysis-for State and Local Governments. This reference has created questions as to whether and when intangible assets should be considered capital assets for financial reporting purposes. Statement No. 51 was established to reduce these inconsistencies.

Statement No. 51 also provides authoritative guidance that specifically addresses the nature of intangible assets. The guidance specific to intangible assets includes guidance on recognition and requires that an intangible asset be recognized in the statement of net assets only if it is considered identifiable. Additionally, Statement No. 51 establishes a specified-conditions approach to recognizing intangible assets that are internally generated. Effectively, outlays associated with the development of such assets should not begin to be capitalized until certain criteria are met. Outlays incurred prior to meeting these criteria should be expensed as incurred. Statement No. 51 also provides guidance on
recognizing internally generated computer software as an intangible asset.

The requirements of Statement No. 51 are effective for financial statements for periods beginning after June 15, 2009. The provisions of Statement No. 51 generally are required to be applied retroactively. Management does not believe that the adoption of GASB Statement No. 51 will have a material effect on the System's financial statements in fiscal year 2010 when adopted.

## 3. 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 the State Street Bank and Trust Company. As of June 30, 2009 and 2008, the System had fair value bank balances of \$643,400 and $\$ 1,115,272$, respectively, that are in demand deposit accounts subject to coverage by Federal deposit insurance but not collateralized. The System does not have a deposit policy for custodial credit risk; however, 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.

## 4. CONTRIBUTIONS AND FUNDING STATUS

## Contributions

Group A active participants are required to contribute to the System amounts as set forth in the Pension Statute. As of June 30, 2008 and 2007, 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's contribution rate shall not be less than the greater of $10 \%$ of all participant salaries or two times the rate contributed by Group A participants. 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 per-
centages of payroll payments based on its amortization period for the unfunded actuarial liability. However, under the terms of the Fourth Amendment to the Meet and Confer Agreement dated June 27, 2007, the City agreed to provide funding to the System for fiscal years to June 30, 2008 through 2011 as follows:

|  | Budgeted <br> Contributions |
| :--- | :--- |
| Fiscal year 2008 | $\$ 75.0$ million |
| Fiscal year 2009 | $\$ 78.5$ million |
| Fiscal year 2010 | $\$ 83.5$ million |
| Fiscal year 2011 | $\$ 88.5$ million |

In addition, as part of the original Meet and Confer Agreement, a pension obligation note (see note 5) of $\$ 300$ million was recognized as a contribution from the City during fiscal year 2005.

The employer contribution amounts for fiscal years 2009 and 2008 were not set by actuarial valuations but were instead established under the terms of the Meet and Confer Agreement.

Although the City and participants have contributed the amounts as required under the Pension Statute and the Meet and Confer Agreement, the actual contributions made by the City have been less than the Annual Required Contribution (ARC) for fiscal years 2009 and 2008. The ARC for fiscal year 2009 was calculated in the July 1, 2007 actuarial valuation at $19.47 \%$ of covered payroll as shown in the July 1, 2008 Valuation Report.

Prior to 2009, based on the original Meet and Confer Agreement between the System's Board and the City, dated September 15, 2004, the City agreed to provide funding to the System as follows for fiscal years 2005, 2006 and 2007, comprised of budgeted contributions and
net proceeds of pension obligation bonds as follows (on a cash basis):

|  | Budgeted <br> Contributions | Pension Obligation <br> Bonds |
| :--- | :---: | :---: |
| ${ } }$ | $\$ 33$ million | $\$ 33$ million |
| Fiscal year 2006 | $\$ 36$ million | $\$ 33$ million |
| Fiscal year 2007 | $\$ 39$ million | $\$ 33$ million |

## Funding Status

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 July 1, 2008 is $70.1 \%$, which includes the $\$ 300$ million note contributed by the City (see note 5). This is consistent with the funded ratio as of July 1, 2007, which is $70.1 \%$. The recent improvement in funding ratios is the direct result of the 2007 Fourth Amendment to the Meet and Confer Agreement. Prior to the Fourth Amendment, the actuarial value of System assets was determined using techniques that spread the effects of short-term volatility in the market value of investments over a five-year period (20\% each year). Under the new agreement for purposes of the July 1, 2007 actuarial valuation, instead of recognizing $20 \%$ of the prior years' deferred investment gains/ (losses), all of the deferred gains/(losses) from 2006 and prior were fully recognized as of July 1, 2007. Only the 2007 investment gain and the 2008 investment loss have the normal deferral that is part of the AVA methodology. In future years, the number of deferral bases will grow until we are once again recognizing prior years' investment gains/(losses) over five years.

The funded status of the System as of July 1, 2008, the most recent actuarial valuation date, is as follows (dollar amounts in millions):

Funded Status of the System as of July 1, 2008

|  | (1) | (2) | (3) | (4) | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actuarial | Actuarial |  |  |  | UAAL as a |
| Actuarial | Value of | Accrued |  |  |  | Percentage |
| Valuation | Assets | Liability | Unfunded | Funded | Covered | of Covered |
| Date | (AVA) | (AAL) | (UAAL) | Ratio | Payroll | Payroll |
|  |  |  | (2)-(1) | (1)/(2) |  | (3)-(5) |
| 07/01/08 | 2,310.4 | 3,296.3 | 986.0 | 70\% | 483.8 | 204\% |

The City is responsible for funding the deficiency, if any between the amounts available to pay the System's benefits and the amount required to pay such benefits.

## Actuarial Methods and Assumptions

The July 1, 2008 actuarial valuation used the following significant assumptions:

| Actuarial cost method <br> Amortization method <br> Remaining Amortization | Entry age normal cost method <br> Level percent of pay, open* |
| :--- | :--- |
| Period <br> Investment rate of return | 30 years* <br> Asset Valuation method |
| 5 yet of expenses phase-in** <br> Galary increases | Graded rates based on years <br> of service (range from 3 per- <br> cent to 5.5 percent) |
| Payroll growth factor | $3.0 \%$ per year |
| General inflation rate | $3.0 \%$ per year <br> Life expectancy |
|  | Based on 1994 Uninsured <br> Pensioners Mortality Tables |
|  | (healthy participants) <br> Based on 1965 Railroad <br> Retirement Board Disabled Life |
|  | Table (disabled participants) <br> 90\% at first eligibility |

*The agreement between the City and HMEPS included an open 30 year amortization period until the 2009 valuation. Beginning with the 2009 valuation, the amortization period will be a closed 30 years from July 1, 2009.
**Under the terms of the Fourth Amendment, all of the deferred gains/(losses) from 2006 and prior were fully recognized as of July 1, 2007. Only the 2007 investment gain and the 2008 investment loss have the normal deferral that is part of the AVA methodology. In future years the number of deferral bases will grow until we are once again recognizing prior years' excess investment gains/losses over five years.

Historical trend information is provided as required supplementary information on pages 39 to 40 . This historical information is intended to demonstrate the progress the System has made in accumulating sufficient assets to pay benefits when due and the related actuarial assumptions used in determining the actuarially determined amounts.

## 5. NOTE RECEIVABLE - CITY OF HOUSTON

As part of the Meet and Confer Agreement on November 10, 2004, the City issued the System a $\$ 300$ million pension obligation note (the Note) maturing on December 1, 2033. The Note was issued to fulfill an obligation under the 2004 Meet and Confer Agreement, and was agreed upon in order to improve the Systems' long-term funding
outlook. The Meet and Confer Agreement also authorizes the City to prepay the Note and Deferred Interest Certificates in whole or in part.

During fiscal year 2009, the City notified the System of its intent to prepay in full the Note, the Deferred Interest Certificates and any and all accrued interest. On January 8, 2009, the City prepaid the Note in the amount of $\$ 381,773,912$ which is equal to the sum of the principal amount of the Note, the amount of Deferred Interest Certificates, and all accrued interest to the date of prepayment.

The original terms of the Note provided for the Note to bear interest at no less than $8.5 \%$ per year, which is the System's actuarial assumed rate of return on investments. The Note was secured in part by a deed of trust on the Convention Center Hotel adjacent to the George R. Brown Convention Center (the Hotel). The Note had an interest rate of $8.5 \%$ for the initial period through March 31, 2005. Thereafter, the interest rate is adjusted annually effective as of April 1 of each year to be the greater of $8.5 \%$ or the sum of the U.S. Treasury bond yield on the prior March 31 for the maturity date closest to December 1, 2033 plus $3.2 \%$ less a reduction for adjustments beginning in 2015 to reflect market reductions, if any, in yield spreads to maturity for comparable instruments.
Since the Note was prepaid on January 8, 2009 in full, the total interest receivable related to this Note as of June 30, 2009 and 2008 is $\$ 0$ and $\$ 69,893,533$, respectively. The System recognized interest income in connection with this Note of $\$ 15,937,089$ and $\$ 29,206,117$ for fiscal years 2009 and 2008, respectively.

## 6. DEFERRED COMPENSATION PLAN

The System offers its employees a deferred compensation plan (the 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, GreatWest Retirement Services (Great-West), and the cost of
administration and funding are borne by the DCP participants. Amounts deferred are held in trust by GreatWest 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.

## 7. POST EMPLOYMENT BENEFITS OTHER THAN PENSION BENEFITS

## Plan Description

The System provides health care benefits (i.e. medical, prescription, dental) to retired System employees and their beneficiaries. The System also provides 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 (5) years of full-time service with the System and meets at least one of the 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 70 .
- Employee is eligible to begin receiving a retirement pension within 5 years after the employee's termination of employment.

The health care benefits are 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 selffunded benefits. The insurance company does not insure or guarantee the self-funded benefits. 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 Annual OPEB Cost

Contribution requirements of the System's retired employees are established and may be amended by the Board of Trustees. For health care benefits, the eligible retiree contributes $25 \%$ of the retiree health insurance premium and the System contributes the remaining 75\%
of the retiree health care premium. For life insurance, the retiree pays $100 \%$ of the cost of the premium.

The System's annual other postemployment benefits (OPEB) cost is calculated based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with the parameter of GASB Statement No. 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. The System had its first OPEB actuarial valuation performed as of June 30, 2008 as required by GASB Statement No. 45. The actuarial valuation covers a two year period. The System's annual OPEB cost is as follows:

| Annual required contribution | $\$ 345,777$ |
| :--- | ---: |
| Interest on OPEB obligation | 11,341 |
| Adjustment to ARC | $(10,508)$ |
| Annual OPEB cost (expense) (end of year) | 346,610 |
| $\quad$ Net estimated employer contributions | $(98,940)$ |
| Increase in net OPEB obligation | 247,670 |
| Net OPEB obligation - as of beginning |  |
| of the year | $\underline{\$ 499,697}$ |
| Net OPEB obligation - as of end of year |  |

## Funded Status and Funding Progress

The funded status of the System's retiree health care plan, under GASB Statement No. 45 as of June 30, 2009 is shown in the table below.

Under the reporting parameters, the System's retiree health care plan is $0 \%$ funded with an estimated actuarial accrued liability exceeding actuarial assets by $\$ 3,297,680$ at June 30, 2009.

Actuarial Valuation Date as of June 30, 2009
(a) Actuarial Value of Assets
(b) Actuarial Accrued Liability (AAL)

3,297,680
(b-a) Unfunded (Funded) AAL (UAAL)
3,297,680
(a/b) Funded Ratio
0\%

## 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 shortterm volatility in actuarial accrued liabilities and the actuarial value of assets. Significant methods and assumptions were as follows:

## Actuarial Methods and Assumptions

\(\left.\left.$$
\begin{array}{ll}\text { Investment rate of return } & \begin{array}{l}4.5 \% \text {, net of expenses } \\
\text { Graded rates based } \\
\text { on years of service }\end{array}
$$ <br>

(range from 3 percent\end{array}\right] $$
\begin{array}{ll}\text { to } 5.5 \text { percent) }\end{array}
$$\right\}\)| $3.0 \%$ per year |  |
| :--- | :--- |
| Payroll growth factor | $3.0 \%$ per year |
| General inflation rate | Actuarial cost method |
| Amorected Unit Credit Cost |  |
| Method |  |

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 presented as required supplementary information (See Schedule 3) provides multiyear 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.

## 8. 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, as follows:

|  | $\underline{2009}$ | $\underline{2008}$ |
| :--- | ---: | ---: |
| Short-term investment funds | $\$ 41,292,085$ | $50,709,924$ |
| Government securities | $46,951,260$ | $46,189,118$ |
| Corporate bonds | $134,193,755$ | $88,482,458$ |
| Capital stocks | $435,432,937$ | $487,616,910$ |
| Commingled funds | $586,691,183$ | $537,365,408$ |
| Real assets | $204,875,980$ | $338,905,427$ |
| Alternative Investments | $\underline{294,803,721}$ | $336,774,854$ |
|  | $\underline{\$ 1,744,240,921}$ | $\underline{1,886,044,099}$ |

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's Board.

In holding all 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 a Statement of Investment Policies and Objectives (Investment Policy) 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 Credit Risk

For an investment, custodial credit 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 credit risk if the securities are uninsured, are not registered in the name of the System, and are held by either the counterparty or the counterparty's trust department or agent but not in the System's name. At June 30, 2009, 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 of Credit Risk

The allocation of assets among various asset classes is set by the Board. For major asset classes (e.g., U.S. equity, international equity, fixed income, real assets, and alternative investments), 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 of the System provides that no investment manager shall have more than 15\% (at market value) of the System's assets in one investment style offered by the firm, with the exception of passive management.

Representative guidelines by type of investment are as follows:

## U.S. equity managers

1. A manager's portfolio shall contain a minimum of twenty-five issues.
2. No more than $5 \%$ of the manager's portfolio at market shall be invested in ADR's.
3. No individual holding in a manager's portfolio may constitute more than $5 \%$ of the outstanding shares of an issuer.
4. No individual holding may constitute more than $5 \%$ of a manager's portfolio at cost or $10 \%$ at market.
5. Short sales, purchases on margin, non-negotiable or otherwise restricted securities are prohibited, other than where expressly permitted.
6. While there are no restrictions on cash, a manager must notify the System if the cash position exceeds 10\%.

## International equity managers

1. 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.
2. 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.
3. While there are no restrictions on cash, a manager must notify the System if the cash position exceeds 10\%.
4. Currency forwards and futures will be limited as follows:
a. Limits on net forward and future sales of currencies will be addressed in each manager's respective Guidelines and Objectives,
b. Forward and future exchange contracts of any currencies, other than Yen, Sterling and Euro shall be limited to the manager's underlying equity position in the local market,
c. Foreign exchange contracts with a maturity exceeding 12 months are prohibited, and
d. Currency options may be entered into in lieu of or in conjunction with forward sales of currencies. The same effective limitations specified in
(a) through
(c) above will apply to currency options.

## Fixed income managers

1. 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.
2. 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

1. 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.

There is no security issued by a single issuer that is being held with a market value over $5 \%$ of the System's plan net assets as of June 30, 2009 and June 30, 2008.

## 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 com-
pliance 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. This risk is managed within the portfolios using the effective duration or option-adjusted methodology. The System's investment policies require that the portfolio shall maintain a duration within $+/-20 \%$ of the Barclays Capital Aggregate Bond index; and maintain a credit quality weighted average of $A A$-, or equivalent. 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 are managed by the active managers.

## Credit Risk

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

1. All issues purchased 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. The quality ratings of investments in fixed income securities are shown at the bottom of page 34 .

At June 30, 2008, the table shows the System's investments by type, amount and the effective duration rate calculated using the software Wilshire Axiom.

|  | Effective |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Duration | Domestic | International | Fair Value |
| Collateralized mortgage obligations | 4.93 | \$4,760,462 |  | 4,760,462 |
| Convertible bonds | 3.00 | 6,875,577 | 103,813 | 6,979,390 |
| Corporate bonds | 5.06 | 100,094,842 |  | 100,094,842 |
| Corporate bonds | 3.75 |  | 9,135,610 | 9,135,610 |
| GNMA I/FNMA/FHLMC (Sponsored Agencies) | 2.81 | 26,714,856 |  | 26,714,856 |
| Government issues (United States) | 6.60 | 15,421,825 |  | 15,421,825 |
| Government issues (International) | 10.01 |  | 3,291,262 | 3,291,262 |
| Zero coupon bond | 13.66 | 1,523,317 |  | 1,523,317 |
| Misc. receivable (Auto/Credit card) | 1.41 | 10,013,592 |  | 10,013,592 |
| Other asset backed | 3.09 | 3,002,219 | 207,640 | 3,209,859 |
|  | 5.43 | \$168,406,690 | $\underline{\underline{12,738,325}}$ | $\underline{\underline{181,145,015}}$ |

## Quality Ratings

The quality ratings of investments in fixed income securities as described by nationally recognized statistical rating organizations at June 30, 2009 are as follows:

| Quality <br> Rating | CMO | Convertible Bonds | Corporate Bonds | Sponsored Agencies | Government Issues (Int'l) | Other | Other <br> Asset <br> Backed | Grand Total Fair Value | Percentage of Holdings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AAA | \$3,871,207 |  | 1,490,164 | 11,185,143 |  |  | 591,694 | 17,138,208 | 0.98\% |
| AA |  |  | 783,629 |  |  |  |  | 783,629 | 0.04\% |
| AA+ | 3,336 |  | 783,919 |  |  |  |  | 787,255 | 0.05\% |
| AA- |  |  | 374,010 |  |  |  |  | 374,010 | 0.02\% |
| A |  |  | 3,751,240 |  |  |  |  | 3,751,240 | 0.22\% |
| A- |  |  | 3,360,471 |  |  |  | 216,357 | 3,576,828 | 0.21\% |
| A+ |  |  | 1,624,659 |  | 1,545,491 |  |  | 3,170,150 | 0.18\% |
| BBB |  |  | 4,285,556 |  | 49,146 |  | 82,955 | 4,417,657 | 0.25\% |
| BBB- |  |  | 5,342,081 |  | 1,696,625 |  | 238,138 | 7,276,844 | 0.42\% |
| $\mathrm{BBB}+$ |  |  | 4,888,528 |  |  | 412,797 | 460,928 | 5,762,253 | 0.33\% |
| BB |  |  | 5,695,049 |  |  |  |  | 5,695,049 | 0.33\% |
| $\mathrm{BB}+$ |  | 892,437 | 3,618,486 |  |  |  | 223,017 | 4,733,940 | 0.27\% |
| BB- |  | 370,063 | 8,134,265 |  |  |  | 553,783 | 9,058,111 | 0.52\% |
| B | 99,754 | 801,900 | 5,378,917 |  |  |  | 30,026 | 6,310,597 | 0.36\% |
| $B+$ |  | 231,988 | 10,182,655 |  |  |  | 109,139 | 10,523,782 | 0.60\% |
| B- |  | 1,565,126 | 16,578,198 |  |  |  |  | 18,143,324 | 1.04\% |
| Below C | 168,727 |  | 26,829,284 |  |  |  | 62,675 | 27,060,686 | 1.55\% |
| NA | 617,438 | 3,117,876 | 6,129,341 | 15,529,713 |  | 9,600,795 | 641,147 | 35,636,310 | 2.04\% |
| Subtotal | \$4,760,462 | 6,979,390 | 109,230,452 | 26,714,856 | 3,291,262 | 10,013,592 | 3,209,859 | 164,199,873 | 9.41\% |
| Total credit risk debt securities |  |  |  |  |  |  |  | 164,199,873 | 9.41\% |
| US government fixed income securities* |  |  |  |  |  |  |  | 16,945,142 | 0.97\% |
| Total fixed income securities |  |  |  |  |  |  |  | 181,145,015 | 10.38\% |
| Other investments |  |  |  |  |  |  |  | 1,563,095,906 | 89.62\% |
| Total Investments |  |  |  |  |  |  |  | 1,744,240,921 | 100\% |

[^4]
## 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, 2008, as follows:

|  | Fair Value |  | Percentage |
| :--- | ---: | ---: | ---: |
| Australian Dollar | $\$ 2,723,463$ |  | $1.9 \%$ |
| Brazilian Real | $1,944,060$ |  | $1.4 \%$ |
| Canadian Dollar | $7,192,799$ | $5.1 \%$ |  |
| Euro Currency | $38,071,397$ | $27.0 \%$ |  |
| Hong Kong Dollar | $12,054,649$ | $8.5 \%$ |  |
| Indonesian Rupiah | 527,700 | $0.4 \%$ |  |
| Japanese Yen | $36,437,754$ | $25.7 \%$ |  |
| Mexican Peso | $1,536,641$ | $1.1 \%$ |  |
| New Taiwan Dollar | $1,055,794$ | $0.7 \%$ |  |
| New Zealand Dollar | $1,059,485$ | $0.7 \%$ |  |
| Pound Sterling | $26,646,881$ | $18.8 \%$ |  |
| Singapore Dollar | $2,105,156$ | $1.5 \%$ |  |
| South Korean Won | $2,333,902$ | $1.6 \%$ |  |
| Swedish Krona | $2,032,883$ | $1.4 \%$ |  |
| Swiss Franc | $4,957,042$ | $3.5 \%$ |  |
| Turkish Lira | $1,054,684$ |  | $0.7 \%$ |
| Total | $\$ 141,734,290$ |  | $100.0 \%$ |

Schedule 6 on page 44 lists the System's investment and professional service providers.

## Securities Lending

The System is authorized under its Investment Policy 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, 2009 and 2008, 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. As of June 30, 2009 and

2008, such investment pool had an average duration of 43 and 42 days, respectively, and an average expected weighted maturity of 318 and 396 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.

During fiscal year 2009, one of the borrowers participating in the System's securities lending program defaulted on borrowed securities valued at approximately $\$ 4.7$ million. Consequently, the Custodian purchased replacement securities on behalf of the System using the collateral described above. This collateral was sufficient to cover this purchase thereby making the System 100\% whole. Moreover, there were no losses during the year resulting from a default of the borrowers or the Custodian.

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 Ioan as of June 30, 2009 was $\$ 81,757,191$ and $\$ 78,953,109$ respectively, and \$146,227,896 and \$141,903,793 respectively, as of June 30, 2008.

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

|  | $\underline{2009}$ | $\underline{\underline{2008}}$ |
| :--- | ---: | ---: | ---: |
| U.S. government securities | $\$ 6,937,288$ | $9,849,691$ |
| Domestic equity | $46,260,574$ | $106,819,700$ |
| Domestic fixed income | $8,947,772$ | $12,314,032$ |
| International equity | $\underline{16,807,475}$ | $\underline{12,920,370}$ |
|  | $\underline{\$ 78,953,109}$ | $\underline{141,903,793}$ |

## 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. The investment manager may invest in exchange-traded derivative securities to provide incremental value at the margin and to hedge or reduce risk using Fed funds futures, T-bill futures, 2, 5 and 10-year note futures and options, 30-year bond futures and options, agency note futures and options and municipal bond futures and options. No more than $5 \%$ of the portfolio will be invested in original futures margin and option premiums, exclusive of any in-the-money portion of the premiums. Short options positions will generally be hedged with cash, cash equivalents, current portfolio security holdings, or other options or futures positions.

## Covered Call Options

The System writes 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 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.
One of the System's investment managers, Western Asset Management, is permitted to use investment options. Western Asset Management periodically invests in options as a means to manage their portfolio's duration.

At June 30, 2009 and 2008, the Systems' investments had the following option balances at fair market value:

|  | $\underline{2009}$ | $\underline{\underline{2008}}$ |
| :--- | ---: | ---: |
| Options purchased - Puts | $\$$ | 6 |
| Options written - Calls | $(52,409)$ | $(44,609)$ |
| Options written - Puts | $\underline{(8,950)}$ | $\underline{(60,461)}$ |
|  | $\underline{\$(61,359)}$ | $\underline{(105,064)}$ |

## 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 2009 and
2008. 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 favorable or unfavorable 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 decrease, 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 invests 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.

## 9. FURNITURE, FIXTURES AND EQUIPMENT

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

|  | $\underline{2009}$ | $\underline{2008}$ |
| :---: | :---: | :---: |
| Office furniture and equipment | \$216,216 | 437,945 |
| Computer equipment | 756,320 | 794,303 |
| Leasehold improvements | 398,232 | 398,232 |
|  | 1,370,768 | 1,630,480 |
| Less accumulated depreciation and amortization | $(899,583)$ | (1,211,662) |
|  | \$471,185 | 418,818 |

## 10. 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, 2009 and 2008, aggregate contributions from these eligible participants of the System were approximately $\$ 99,836,000$ and $\$ 88,960,000$, respectively.

The System's investments in limited partnerships and real estate trusts are included in the table appearing in note 8. In connection with those investments, the System has remaining commitments as of June 30, 2009 and 2008 of approximately $\$ 184,000,000$ and $\$ 234,000,000$, respectively, pursuant to terms of the respective limited partnerships and real estate trusts.

The System leases office facilities and parking spaces under an operating lease which was originally made on August 1, 1990 and has been amended to the sixth amendment dated August 30, 2002. The sixth amendment to the lease agreement provides rent abatement on the expansion premises through June 30, 2004 and an annual base rent of $\$ 15$ per square foot of rentable area up to June 30 , 2006, increasing to $\$ 21.50$ per square foot of rentable area from July 1, 2006 until the end of the lease term on June 30, 2011. The amount of future minimum lease obligations required under this lease are as follows:

| Year Ending <br> June 30, | $\underline{\text { Amount }}$ |
| :---: | ---: |
| 2010 | $\$ 466,200$ |
| 2011 | $\underline{466,200}$ |
|  | $\underline{\$ 932,400}$ |
|  |  |

Additional amounts are assessed for use of common areas, utilities and maintenance. Total rental expense, including these assessments, amounted to approximately $\$ 726,000$ and $\$ 735,000$ during the years ended June 30, 2009 and 2008, respectively.

## 11. 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 changes 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.

## 12. SUBSEQUENT EVENTS

Management has evaluated subsequent events through October 29, 2009, the date which the financial statements were available to be issued.

## SCHEDULE 1 - SCHEDULE OF FUNDING PROGRESS (UNAUDITED) (IN MILLIONS OF DOLLARS)

|  | (1) | (2) | (3) | (4) | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actuarial | Actuarial |  |  |  | UAAL as a |
| Actuarial | Value of | Accrued |  | Funded |  | Percentage |
| Valuation | Assets | Liability | Unfunded | Ratio | Covered | of Covered |
| Date | (AVA) | (AAL) | (UAAL) | (1):(2) | Payroll | Payroll |
| 07/01/99 | 1,222.2 | 1,339.9 | 117.7 | 91 \% | 407.7 | 29\% |
| 07/01/00 | 1,376.0 | 1,509.4 | 133.4 | 91 \% | 432.6 | 31\% |
| 07/01/01 | 1,490.2 | 1,955.8 | 465.6 | 76 \% | 418.0 | 111\% |
| 07/01/02 | 1,519.7 | 2,515.2 | 995.5 | 60 \% | 399.8 | 249\% |
| 07/01/03 | 1,510.3 | 3,278.2 | 1,767.9 | 46 \% | 390.3 | 453\% |
| 07/01/04 | 1,501.2 | 2,633.8 | 1,132.6 | 57 \% | 366.2 | 309\% |
| 07/01/05 | 1,777.6 | 2,725.2 | 947.6 | 65 \% | 404.6 | 234\% |
| 07/01/06 | 1,867.3 | 2,894.3 | 1,027.0 | 64 \% | 422.5 | 243\% |
| 07/01/07 | 2,193.7 | 3,128.7 | 935.0 | 70 \% | 448.9 | 208\% |
| 07/01/08 | 2,310.4 | 3,296.3 | 986.0 | 70 \% | 483.8 | 204\% |

Analysis of the dollar amounts of the actuarial value of assets, actuarial accrued liability, and unfunded actuarial accrued liability in isolation can be misleading. Expressing the actuarial value of assets as a percentage of the actuarial accrued liability provides one indication of the System's funding status on a going-concern basis. Analysis of this percentage over time indicates whether the plan is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. Trends in unfunded actuarial accrued liability and covered payroll are both affected by inflation. Expressing the unfunded actuarial accrued liability as a percentage of covered payroll approximately adjusts for the effects of inflation and aids analysis of the System's progress made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

See accompanying independent auditors' report.
See accompanying note to required supplemental schedules.

## SCHEDULE 2 - SCHEDULE OF EMPLOYER CONTRIBUTIONS (UNAUDITED)

| Fiscal <br> Year | Actuarial <br> Valuation Date | Annual Required <br> Contributions (in millions)* | Percentage <br> Contributed |
| :---: | :---: | :---: | :---: |
| $06 / 30 / 00$ | $07 / 01 / 98$ | 38.3 | $100.0 \%$ |
| $06 / 30 / 01$ | $07 / 01 / 99$ | 41.3 | $100.0 \%$ |
| $06 / 30 / 02$ | $07 / 01 / 00$ | 40.8 | $100.0 \%$ |
| $06 / 30 / 03$ | $07 / 01 / 01$ | 71.9 | $56.5 \%$ |
| $06 / 30 / 04$ | $07 / 01 / 02$ | 123.9 | $46.0 \%$ |
| $06 / 30 / 05$ | $07 / 01 / 03$ | 102.9 | $61.0 \%{ }^{* *}$ |
| $06 / 30 / 06$ | $07 / 01 / 05$ | 119.1 | $56.2 \%$ |
| $06 / 30 / 07$ | $07 / 01 / 06$ | 101.8 | $69.0 \%$ |
| $06 / 30 / 08$ | $07 / 01 / 07$ | 110.6 | $66.0 \%$ |
| $06 / 30 / 09$ | $07 / 01 / 08$ | 93.8 | $81.9 \%$ |

* The required contributions are calculated based on actuarially determined contribution rates. Actuarial valuations generally are performed annually. The contribution rate, which is based on a given actuarial valuation and approved by the Board, becomes effective one year after the valuation date.
** Includes only actual cash contributions received. Does not include the $\$ 300$ million pension obligation note (see note 5).
See accompanying independent auditors' report.
See accompanying note to required supplemental schedules.


## NOTES TO REQUIRED SUPPLEMENTAL SCHEDULES 1 and 2 (UNAUDITED)

This information presented in the required supplemental information was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

| Valuation date | July 1, 2008 |
| :--- | :--- |
| Actuarial cost method | Entry Age Normal |
| Amortization method | Level percentage, open |
| Amortization period | 30- Year open funding period beginning July 1, 2008* |
| Asset valuation method | 5 -year phase-in |
| Actuarial assumptions: |  |
| $\quad$ Investment rate of return | $8.5 \%$, 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 |
| DROP participation rate | $90 \%$ at first eligibility |
| DROP interest credit | $4.25 \%$ per year |
| Mortality rates | Based on 1994 Uninsured Pensioners Mortality Table (healthy |
|  | participants); 1965 Railroad Retirement Board Disabled Life Table |
|  | (disabled participants) |

*The agreement between the City and HMEPS included an open 30 year amortization period until 2009 valuation. Beginning with the 2009 valuation, the amortization period will be a closed 30 years from July 1, 2009

See accompanying independent auditor's report.

## SCHEDULE 3 - SCHEDULE OF FUNDING PROGRESS FOR OPEB (UNAUDITED)


*In accordance with the Government Accounting Standards Board (GASB), public entities are required to report their OPEB liabilities every two years effective for periods beginning after December 15, 2006.

See accompanying independent auditors' report.
See accompanying note to required supplemental schedule.

## NOTE TO REQUIRED SUPPLEMENTAL SCHEDULES 3 (UNAUDITED)

This information presented in the required supplemental information 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, 2008* |
| :--- | :--- |
| Actuarial cost method | Projected unit credit |
| Amortization method | Level percent of payroll |
| Amortization period | $30-$ Year period |
| Asset valuation method | Market value of assets |
| Actuarial assumptions: |  |
| $\quad$ Investment rate of return | $4.5 \%$, net of expenses |
| Salary increases | Graded rates based on years of service |
| $\quad$ Payroll growth factor | $3.0 \%$ per year |
| General inflation rate | $3.0 \%$ per year |
| Health cost trend | Starting at $10 \%$ in 2008 and decreasing to $4.5 \%$ by 2023 |

* In accordance with the Government Accounting Standards Board (GASB), public entities are required to report their OPEB liabilities every two years effective for periods beginning after December 15, 2006.

See accompanying independent auditors' report.

SCHEDULE 4- INVESTMENT SUMMARY JUNE 30, 2009 and 2008

June 30, 2009
June 30, 2008

|  | Cost | Fair Value | Unrealized Appreciation (Depreciation) | Cost | Fair Value | Unrealized Appreciation (Depreciation) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fixed income: |  |  |  |  |  |  |
| Government securities | \$45,653,936 | 46,951,260 | 1,297,324 | 44,620,412 | 46,189,118 | 1,568,706 |
| Corporate bonds | 138,724,980 | 134,193,755 | $(4,531,225)$ | 93,654,660 | 88,482,458 | $(5,172,202)$ |
| Total fixed income | 184,378,916 | 181,145,015 | $(3,233,901)$ | 138,275,072 | 134,671,576 | $(3,603,496)$ |
| Short-term investment funds | 41,279,606 | 41,292,085 | 12,479 | 50,709,924 | 50,709,924 | 0 |
| Capital stocks | 487,067,572 | 435,432,937 | $(51,634,635)$ | 491,108,221 | 487,616,910 | $(3,491,311)$ |
| Commingled funds | 553,031,840 | 586,691,183 | 33,659,343 | 401,804,751 | 537,365,408 | 135,560,657 |
| Real assets | 224,004,356 | 204,875,980 | $(19,128,376)$ | 198,531,128 | 338,905,427 | 140,374,299 |
| Alternative Investments | 331,392,102 | 294,803,721 | $(36,588,381)$ | 296,701,264 | 336,774,854 | 40,073,590 |
| Total investments | \$1,821,154,392 | $\underline{\underline{1,744,240,921}}$ | $\underline{(76,913,471)}$ | $\underline{\underline{1,577,130,360}}$ | $\underline{\underline{1,886,044,099}}$ | 308,913,739 |

Space and cost restrictions make it impractical to print the entire investment portfolio in this report. A portfolio listing is available for review at the System's office by appointment, upon request.

See accompanying independent auditors' report.

## OTHER SUPPLEMENTAL INFORMATION

SCHEDULE 5 - INVESTMENT SERVICES, PROFESSIONAL SERVICES, AND ADMINISTRATION EXPENSES YEARS ENDED JUNE 30, 2009 AND 2008

|  | 2009 | 2008 |
| :---: | :---: | :---: |
| Investment services: |  |  |
| Custodial services | \$401,600 | 371,030 |
| Money management services | 4,022,126 | 5,660,966 |
| Consulting services | 682,542 | 507,958 |
| Total investment services | \$5,106,268 | 6,539,954 |
| Professional services: |  |  |
| Actuarial services | 42,497 | 58,195 |
| Auditing and consulting services | 76,075 | 19,942 |
| Legal services | 651,270 | 527,172 |
| Other professional services | 21,982 | 32,275 |
| Total professional services | \$791,824 | 637,584 |
| Administration expenses: |  |  |
| Office costs | 734,236 | 741,371 |
| Insurance costs | 137,941 | 125,124 |
| Costs of staff and benefits | 4,399,187 | 3,853,975 |
| Costs of equipment and supplies | 778,589 | 747,612 |
| Depreciation and amortization | 223,339 | 225,402 |
| Costs of education and research | 146,474 | 144,717 |
| Total administration expenses | \$6,419,766 | 5,838,201 |

See accompanying independent auditors' report.

SCHEDULE 6 - SUMMARY OF COSTS OF INVESTMENT AND PROFESSIONAL SERVICES YEARS ENDED JUNE 30, 2009 AND 2008

## Service Provider

Investment services:
Barclays Global Investors, N.A.
Axiom Int'I Investors, L.L.C.
Bloomberg
Brandes Investment Partners, L.L.C.
DePrince, Race and Zollo, Inc.
Earnest Partners, L.L.C.
Enhanced Investment, L.L.C.
Profit Investment Management
Neumeier Investment Counsel, L.L.C.
Legg Mason Capital Management, Inc.
Adams Street Partners, L.L.C.
Loomis, Sayles and Company, L.P.
DDJ Capital Management, L.L.C.
Western Asset Management
Smith Graham \& Company
Frank Russell Securities
Global Forest Partners, L.P.
T. Rowe Price Associates

Piedmont Investment Advisors
State Street Global Advisors
State Street Bank and Trust Company
Courtland Partners
Wilshire Associates, Incorporated
Cliffwater L.L.C.
Pension Consulting Alliance
Total investment services
Professional services:
Gabriel, Roeder, Smith \& Co.
MFR, P.C. (formerly Mir-Fox \& Rodriguez, P.C.)
Pension Benefits Information
Great Ideas Company
Henry, McDonald, James
Pearl, Meyer and Partners
Ennis, Knupp \& Assoc., Inc.
Groom Law Group
CP Paragon Solutions
Locke, Liddell and Sapp, L.L.P.
Baker and Botts, L.L.P.
Daughtry \& Jordan P.C.
Jackson Walker L.L.P.
James Davis
Laura Tolley
Purrington, Moody, Weil
HillCo Partners, L.L.C.
Total professional services
Total costs of investment and professional services

Service Provided

| Money management | \$ 849,294 | 1,261,987 |
| :---: | :---: | :---: |
| Money management | 642,226 | 1,105,639 |
| Money management |  | 5,400 |
| Money management | 435,809 | 630,107 |
| Money management | 331,794 | 458,927 |
| Money management | 120,600 | 160,247 |
| Money management | 76,507 |  |
| Money management | 93,813 | 52,009 |
| Money management | 348,444 | 451,679 |
| Money management |  | 375,675 |
| Money management | 259,394 | 306,374 |
| Money management | 271,403 | 324,147 |
| Money management | 260,243 | 230,724 |
| Money management | 96,655 | 101,198 |
| Money management | 94,419 | 107,773 |
| Money management |  | 25,557 |
| Money management | 51,999 | 50,920 |
| Money management | 51,782 |  |
| Money management | 25,341 |  |
| Money management | 12,403 | 12,603 |
| Custodial services | 401,600 | 371,030 |
| Consulting services | 175,000 | 102,083 |
| Consulting services | 284,000 | 284,000 |
| Consulting services | 166,667 |  |
| Consulting services | 56,875 | 121,875 |
|  | 5,106,268 | 6,539,954 |


| Actuarial services | 42,497 | 58,195 |
| :---: | :---: | :---: |
| Auditing and professional services | 76,075 | 16,720 |
| Consulting services | 1,309 | 3,222 |
| Consulting services | 19,574 |  |
| Consulting services |  | 350 |
| Consulting services |  | 14,000 |
| Consulting services | 1,099 | 6,500 |
| Professional services |  | 300 |
| Professional services |  | 11,125 |
| Legal services | 369,996 | 322,971 |
| Legal services | 140,287 | 82,870 |
| Legal services | 4,410 |  |
| Legal services | 7,341 |  |
| Legal services | 2,500 |  |
| Legal services | 20,000 |  |
| Legal services | 4,770 | 11,360 |
| Legal services | 101,966 | 109,971 |
|  | 791,824 | 637,584 |
|  | \$ 5,898,092 | 7,177,538 |

See accompanying independent auditors' report.
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## SECTION 3: INVESTMENT INFORMATION



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

## General

The Board recognizes the following investment responsibilities: a) to establish investment policy, guidelines and objectives for the investment of System assets, b) to select independent investment managers to implement investment management strategies in conformity with stated investment policies and guidelines, and c) to monitor investment activities and progress toward attaining investment objectives.

## Investment Objectives

The investment objective of the total portfolio is to produce annualized investment returns which exceed the return of a composite benchmark or 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. The current policy portfolio is comprised of $20 \%$ Wilshire 5000 Stock Index, 20\% Morgan Stanley Capital International (MSCI) All Country World Ex-U.S. Index, 10\% Barclays Capital Aggregate Bond Index, 10\% Merrill Lynch High Yield Master II Index, 18\% Standard \& Poor's 500 Index + 3\%, 12\% National Council of Real Estate Investment Fiduciaries (NCREIF) Property Index, 5\% London Interbank Offered Rate (LIBOR) $+5 \%$ and 5\% Consumer Price Index (CPI) $+5 \%$. This policy portfolio was last updated on October 1, 2008 with the adoption of the asset allocation changes described below.

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 Wilshire Associates Public Fund Universe.

## Investment Strategies

## Asset Allocation

The System's investment allocation provides an efficient allocation of assets 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 2009, the Board conducted a comprehensive asset/liability study which resulted in three changes to the System's asset allocation targets. These changes were intended to reduce the volatility of the System's investment returns and to further control the composition and management of the System's alternative investment portfolio. First, the target exposure to U.S. Equities was reduced from 30\% to $20 \%$, to equal the target exposure of Non-U.S. Equities, thus eliminating the home country bias. Second, the Real Assets asset class was segregated into two new asset classes, Real Estate and Inflation-Linked with the target exposure of the two increased from $15 \%$ to $17 \%$. And third, the Alternative Investments asset class was segregated into new asset classes, Private Equity and Absolute Return, with the target exposure of the two increased from $15 \%$ to $23 \%$.

As of June 30, 2009 the System's current investment policy targets are: 20\% U.S. Equities, $20 \%$ Non-U.S. Equities, 20\% Fixed Income, 18\% Private Equity, 12\% Real Estate, 5\% Absolute Return and 5\% InflationLinked. The target and actual allocations are included in page 51.

## Diversification

The System invests in seven major asset classes (U.S Equities, Non-U.S. Equities, Fixed Income, Real Estate, Private Equity, Inflation-Linked, and Absolute Return) and engages the services of numerous professional investment managers 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, 2009, the System had retained the services of 53 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 $15 \%$ of the fair value of the System's assets in a single investment style.

## Rebalancing

Proper implementation of the investment policy requires that a periodic adjustment, or rebalancing, of assets be made to ensure conformance with policy targets 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 2009, 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

Investment managers are subject to guidelines and objectives incorporated in the investment management agreement 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 concentrations of similar securities. 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 a designated percentage of their brokerage activity to an approved list of brokers. 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 periodically against predetermined benchmarks such as an appropriate market index or a comparable peer group. All managers are required to make formal reports to the System of their activities and performance according to standards set forth in the Investment Policy. In addition, System personnel and professional consultants engaged by the Board monitor, managers' performance and conformity with their guidelines and objectives.

## 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 longterm 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.

## Investment Results

## Long-Term Results

The 10-year period ended June 30, 2009 has produced annual returns that have been quite volatile, both for the markets as a whole, and also for the System. The System generated double digit positive returns in five of the past ten fiscal years, outperformed its policy index in eight of those ten fiscal years, and outperformed its peer group in nine of those ten years. However, the double digit negative investment return of fiscal year 2009 caused the System's 10-year annualized return to drop to $6.14 \%$, below its return target of $8.50 \%$. The 20 -year return stands at 8.43\%

As shown in the Comparison of Investment Returns table on page 53, the System's total fund return exceeds its policy portfolio for the following time periods (one-, three-, five- and ten-years). In addition, the System's total fund performance compares very favorably relative to the median public fund, as represented by the Wilshire Associates Public Fund universe, and has outperformed this benchmark for all time periods presented (one-, three-, five-, and ten-years). Over the five- and ten-year periods, the System is the top performing fund in the Wilshire universe.

The consistent long-term above-benchmark performance is best illustrated by the growth of $\$ 1,000$ invested in the System total fund, the policy portfolio and median public fund during the past 10 years (see Table 1). The ending points indicate that $\$ 1,000$ invested in the System's total fund would have grown to $\$ 1,814$, while
the same $\$ 1,000$ would have grown to $\$ 1,358$ and $\$ 1,317$ respectively in the policy portfolio and the median public fund.

TABLE 1


## Fiscal Year 2009 Results

For the fiscal year ended June 30, 2009, the System returned $-16.02 \%$. Despite the disappointing results in absolute terms, the fund outperformed its policy portfolio return of $-17.55 \%$ and the median return in the Wilshire Public Fund universe of -19.19\%.

The Investment Section was written by Chief Investment Officer, Douglas Wynkoop, CFA.

## SCHEDULE OF ASSET ALLOCATION

| Asset Class | Allocation |  | Investment Performance |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Target | Actual | 1 Yr . | 3 Yrs. | 5 Yrs. | $10 \mathrm{Yrs}$. |
| U.S. Equity | 20.0\% | 22.9\% | -26.4\% | -9.9\% | -2.6\% | 0.6\% |
| Wilshire 5000 Index |  |  | -26.4 | -8.1 | -1.6 | -1.3 |
| S\&P 500 Index |  |  | -26.2 | -8.2 | -2.3 | -2.2 |
| Non-U.S. Equity | 20.0 | 22.5 | -31.9 | -5.9 | 4.2 | 4.0 |
| MSCI All Country World Ex-US Index |  |  | -30.5 | -5.4 | 5.0 | 2.9 |
| MSCI EAFE Index |  |  | -31.4 | -8.0 | 2.3 | 1.2 |
| Fixed Income | 20.0 | 23.9 | 0.4 | 3.9 | 4.7 | 5.4 |
| Barclays Aggregate Index |  |  | 6.1 | 6.4 | 5.0 | 6.0 |
| Merrill Lynch High Yield Master II Index |  |  | -3.5 | 1.8 | 4.1 | 4.4 |
| Private Equity ${ }^{1}$ | 18.0 | 13.7 | -20.9 | 3.5 | 10.3 | 8.0 |
| S\&P 500 Index + 3\% |  |  | -23.2 | -5.2 | 0.7 | 0.8 |
| Real Estate ${ }^{2}$ | 12.0 | 10.5 | -40.4 | -5.4 | 8.5 | 10.4 |
| NCREIF Property Index |  |  | -19.6 | 1.0 | 7.6 | 8.5 |
| Inflation-Linked ${ }^{3}$ | 5.0 | 2.6 | n/a | n/a | n/a | n/a |
| CPI $+5 \%$ |  |  | n/a | n/a | n/a | n/a |
| Absolute Return ${ }^{4}$ | 5.0 | 1.0 | n/a | n/a | n/a | n/a |
| LIBOR + 5\% |  |  | n/a | n/a | n/a | n/a |
| Cash | - | 2.9 |  |  |  |  |
| Total Portfolio | 100.0 | 100.0 | -16.0 | 0.0 | 6.1 | 6.1 |
| Policy Benchmark |  |  | -17.6 | -2.0 | 3.5 | 3.1 |

1 Beginning October 1, 2008, Private Equity is separate from Absolute Return. Prior returns were combined in the Private Equity composite.
2 Beginning October 1, 2008, Real Estate is separate from Inflation Linked. Prior returns were combined in the Real Estate composite.
3 The Inflation-Linked composite was created on October 1, 2008. Prior returns are included in the Real Estate composite.
4 The Absolute Return composite was created on October 1, 2008. Prior returns are included in the Private Equity composite.

SCHEDULE OF TOP INVESTMENTS AS OF JUNE 30, 2009*

| Name of Investment | Fair Value of Investment |  | Percent of Portfolio |
| :--- | :---: | :---: | :---: |
|  |  | $\$ 189,717,050$ | $10.9 \%$ |
| BGI US Bond Index (Barclays Capital Aggregate Index) | $136,754,129$ | $7.9 \%$ |  |
| BGI EAFE Index | $93,590,504$ | $5.4 \%$ |  |
| BGI US Equity Index (S\&P 500 Index) | $46,292,439$ | $2.7 \%$ |  |
| BGI Alpha Tilts (Enhanced S\&P 500 Index) | $40,685,186$ | $2.1 \%$ |  |
| CB Richard Ellis Strategic Partners U.S. IV, L.P. | $27,068,540$ | $1.6 \%$ |  |
| Whippoorwill | $25,469,369$ | $1.5 \%$ |  |
| RREEF America REIT II, Inc. | $22,753,402$ | $1.3 \%$ |  |
| Blackrock Energy and Natural Resources Fund | $19,616,869$ | $1.1 \%$ |  |
| Benchmark Plus Institutional Partners Fund | $19,511,016$ | $1.1 \%$ |  |

[^5]PERFORMANCE BY FISCAL YEAR LAST TEN YEARS


HMEPS Performance
Median Public Fund
HMEPS Policy Benchmark
COMPARISON OF INVESTMENT RETURNS - YEARS ENDED JUNE 30
(Calculated based on a time-weighted rate of return based on the market rate of return)

|  |  |  | Median of |  |  |  |  |  |  |  | Barclays | Merrill |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period ending 06-30 | HMEPS <br> Total <br> Fund | HMEPS <br> Policy <br> Portfolio <br> Benchmark | Wilshire <br> Public Fund Universe | HMEPS U.S. Equity | Wilshire 5000 Index | $\begin{aligned} & \text { S\&P } 500 \\ & \text { Index } \end{aligned}$ | HMEPS <br> Non-U.S. <br> Equity | MSCI ACW ex US Index | MSCl EAFE Index | HMEPS <br> Fixed Income | Capital Aggregate Bond Index | Lynch <br> High Yield <br> Master II <br> Index | HMEPS <br> Private <br> Equity | $\begin{aligned} & \text { S\&P } 500 \\ & \text { Index } \end{aligned}$ | HMEPS <br> Real Estate | NCREIF <br> Property Index | HMEPS InflationLinked | Consumer <br> Price Index | HMEPS <br> Absolute Return | LIBOR |  |
| 2000 | 22.92\% | 9.82\% | 9.81\% | 12.14\% | 9.52\% | 7.27\% | 44.02\% | 18.12\% | 17.17\% | 8.54\% | 4.56\% | -1.04\% | 77.46\% | 7.27\% | 9.73\% | 11.62\% | n/a | n/a | n/a | n/a |  |
| 2001 | -4.08\% | -7.97\% | -4.84\% | -2.00\% | -15.33\% | -14.81\% | -26.31\% | -23.82\% | -23.61\% | 2.30\% | 11.23\% | -1.01\% | -15.95\% | -14.81\% | 26.08\% | 11.57\% | n/a | n/a | n/a | n/a | O |
| 2002 | -6.97\% | -6.75\% | -5.85\% | -12.78\% | -16.62\% | -17.96\% | -12.10\% | -8.16\% | -9.50\% | 2.34\% | 8.64\% | -4.38\% | -18.58\% | -17.96\% | 5.24\% | 5.51\% | n/a | n/a | n/a | n/a | $\bigcirc$ |
| 2003 | 3.55\% | 3.55\% | 4.14\% | 3.18\% | 1.27\% | 0.25\% | -3.76\% | -4.19\% | -6.45\% | 13.99\% | 10.41\% | 22.24\% | -3.40\% | 0.25\% | 5.84\% | 7.64\% | n/a | n/a | n/a | n/a | \% |
| 2004 | 18.64\% | 17.35\% | 16.62\% | 21.95\% | 21.24\% | 19.10\% | 34.44\% | 32.50\% | 32.38\% | 3.99\% | 0.32\% | 10.05\% | 13.32\% | 19.10\% | 15.92\% | 10.83\% | n/a | n/a | n/a | n/a | Z |
| 2005 | 13.85\% | 11.59\% | 10.23\% | 7.94\% | 8.23\% | 6.31\% | 13.24\% | 16.95\% | 13.64\% | 9.17\% | 6.81\% | 10.62\% | 19.96\% | 6.31\% | 30.03\% | 18.02\% | n/a | n/a | n/a | n/a | O |
| 2006 | 18.11\% | 13.09\% | 11.14\% | 11.14\% | 9.92\% | 8.63\% | 30.14\% | 28.40\% | 26.54\% | 2.62\% | -0.81\% | 4.71\% | 22.46\% | 8.63\% | 36.39\% | 18.67\% | n/a | n/a | n/a | n/a | $\overline{\text { E }}$ |
| 2007 | 18.64\% | 20.00\% | 17.75\% | 19.36\% | 20.45\% | 20.60\% | 29.54\% | 30.14\% | 26.99\% | 9.56\% | 6.12\% | 11.72\% | 25.37\% | 20.60\% | 20.10\% | 17.24\% | n/a | n/a | n/a | n/a | 岗 |
| 2008 | 0.47\% | -4.88\% | -4.92\% | -16.79\% | -12.53\% | -13.13\% | -5.42\% | -6.20\% | -10.61\% | 1.95\% | 7.13\% | -2.09\% | 11.86\% | -13.13\% | 18.18\% | 9.20\% | n/a | n/a | n/a | n /a | 7 |
| 2009 | -16.02\% | -17.55\% | -19.19\% | -27.56\% | -26.40\% | -26.21\% | -31.94\% | -30.54\% | -31.36\% | 0.36\% | 6.06\% | -3.54\% | -20.92\% | -26.21\% | -40.36\% | -19.57\% | n/a | n/a | n /a | n /a | $\underset{-1}{ }$ |
| 3 Yrs. | 0.04\% | -2.00\% | -3.21\% | -10.39\% | -8.13\% | -8.22\% | -5.88\% | -5.35\% | -7.98\% | 3.88\% | 6.43\% | 1.80\% | 3.51\% | -8.22\% | -5.40\% | 0.98\% | n/a | n/a | n/a | n/a | Z |
| 5 Yrs. | 6.13\% | 3.50\% | 2.63\% | -2.90\% | -1.60\% | -2.24\% | 4.21\% | 4.95\% | 2.30\% | 4.66\% | 5.02\% | 4.09\% | 10.25\% | -2.24\% | 8.47\% | 7.60\% | n/a | n/a | n/a | n/a | - |
| 10 Yrs. | 6.14\% | 3.12\% | 3.08\% | 0.40\% | -1.32\% | -2.22\% | 4.02\% | 2.94\% | 1.18\% | 5.40\% | 5.98\% | 4.41\% | 8.03\% | -2.22\% | 10.37\% | 8.50\% | n/a | n/a | n/a | n/a | 8 |

The Inflation-Linked and Absolute Return asset classes were created on October 1, 2009. Annualized return data are incomplete for periods ending June 30, 2009.

SCHEDULE OF FEES AND COMMISSIONS PAID IN FISCAL YEAR 2009

| Broker Name | Commissions (\$) | Shares | Cents/Share |
| :---: | :---: | :---: | :---: |
| UBS | 121,853 | 11,027,412 | 1.1 |
| Cantor Fitzgerald | 75,829 | 1,887,629 | 4.0 |
| Citigroup | 68,166 | 15,524,545 | 0.4 |
| J.P. Morgan Secs. | 61,112 | 15,566,162 | 0.4 |
| Credit Suisse First Boston | 47,500 | 4,816,665 | 1.0 |
| Instinet | 43,529 | 1,195,362 | 3.6 |
| Goldman Sachs | 40,879 | 4,994,009 | 0.8 |
| Morgan Stanley | 36,543 | 3,047,128 | 1.2 |
| Merrill Lynch | 34,908 | 1,321,224 | 2.6 |
| Donaldson \& Co. | 34,091 | 1,363,645 | 2.5 |
| BNY Brokerage | 31,290 | 1,018,141 | 3.1 |
| Deutsche Bank | 28,344 | 5,184,409 | 0.5 |
| Charles Schwab | 26,648 | 799,675 | 3.3 |
| Keefe Bruyette \& Woods | 25,737 | 1,398,781 | 1.8 |
| WDR Warburg Dillon Read | 21,908 | 866,023 | 2.5 |
| Keybanc Capital Markets | 18,509 | 469,500 | 3.9 |
| Credit Agricole Indosuez | 15,378 | 312,855 | 4.9 |
| Societe Generale | 14,823 | 187,925 | 7.9 |
| Wien Secs. | 14,768 | 492,257 | 3.0 |
| Jeffries \& Co. | 10,708 | 759,893 | 1.4 |
| ABG Securities | 10,357 | 340,690 | 3.0 |
| Kempen \& Co. | 10,178 | 302,417 | 3.4 |
| Stifel Nicolaus | 9,752 | 268,300 | 3.6 |
| Sterne, Agee \& Leach | 9,153 | 227,287 | 4.0 |
| Barclays Capital | 8,200 | 278,527 | 2.9 |
| RBC Capital Markets | 7,856 | 236,500 | 3.3 |
| CAPIS | 7,763 | 263,270 | 2.9 |
| Knight Securities | 7,108 | 266,097 | 2.7 |
| Skandinavska Enskilda Banken | 6,815 | 250,420 | 2.7 |
| TD Waterhouse | 6,569 | 153,500 | 4.3 |
| Baird Robert W \& Co. | 6,287 | 158,217 | 4.0 |
| Pershing DLJ | 6,195 | 453,124 | 1.4 |
| Cowan \& Co. | 5,991 | 244,200 | 2.5 |
| BNP Paribas | 5,753 | 1,688,698 | 0.3 |
| Sidoti \& Co. | 5,463 | 136,700 | 4.0 |
| Dresdner Bank / Kleinworth | 5,225 | 243,829 | 2.1 |
| Fox Pitt Kelton | 4,654 | 269,274 | 1.7 |
| BMO Capital Markets | 4,420 | 106,500 | 4.2 |
| Mizuho Secs. | 4,369 | 104,800 | 4.2 |


| Broker Name | Commissions (\$) | Shares | Cents/Share |
| :---: | :---: | :---: | :---: |
| Magna Securities | 4,102 | 377,160 | 1.1 |
| Lehman Bros. | 4,019 | 19,723 | 20.4 |
| CLSA Secs Korea / Singapore | 3,660 | 116,006 | 3.2 |
| HSBC Secs | 3,627 | 437,415 | 0.8 |
| Carnegie | 3,596 | 41,620 | 8.6 |
| ING Barings Corp | 3,573 | 79,168 | 4.5 |
| Jones Trading Institutional | 3,479 | 136,100 | 2.6 |
| Macquarie Equities | 3,461 | 351,193 | 1.0 |
| Sanford A. Bernstein | 3,455 | 172,945 | 2.0 |
| China Intl Cap Corp / HK Secs | 3,247 | 1,061,800 | 0.3 |
| Investec Secs / Investment Technology Group | 3,211 | 373,709 | 0.9 |
| Execution Limited | 3,065 | 281,854 | 1.1 |
| Man Financial | 3,005 | 286,232 | 1.0 |
| Dongwon Secs. | 2,990 | 29,071 | 10.3 |
| GMP Securities | 2,782 | 66,000 | 4.2 |
| Bear Stearns | 2,681 | 68,592 | 3.9 |
| Bank of America | 2,660 | 66,500 | 4.0 |
| Cabrera Capital Markets | 2,638 | 131,920 | 2.0 |
| Rosenblatt Securities | 2,637 | 245,079 | 1.1 |
| CIMB - GK Secs | 2,528 | 568,112 | 0.4 |
| Pritchard Capital | 2,348 | 58,700 | 4.0 |
| Raymond James | 2,331 | 36,898 | 6.3 |
| Stephens Inc. | 2,329 | 58,237 | 4.0 |
| Kim Eng Secs. | 2,288 | 295,000 | 0.8 |
| ATA Securities | 2,156 | 332,300 | 0.6 |
| JMP Secs. | 2,085 | 72,400 | 2.9 |
| Piper Jaffray | 2,034 | 51,939 | 3.9 |
| Others | 44,298 | 3,104,731 | 1.4 |
| Total | \$1,028,917 | 87,145,994 | 1.2 |

[^6]

Paulo C. Rodriguez and Anthony Jones, Jr., Solid Waste Management Department

## SECTION 4: ACTUARIAL INFORMATION

## Gabriel, Roeder, Smith and Company

March 2, 2009

## Board of Trustees

Houston Municipal Employees Pension System
1111 Bagby, Suite 2450
Houston, TX 77002-2555

## 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, 2008 actuarial valuation will be used by the Board when determining the employer contribution rate for the year beginning July 1, 2009 and ending June 30, 2010.

Under the 2004 Meet \& Confer Agreement between the Board and the City of Houston, a three-year funding schedule was implemented consisting of a $\$ 63$ million employer contribution and $\$ 300$ million pension obligation note for FY 2005, a $\$ 69$ million employer contribution for FY 2006 and a $\$ 72$ million employer contribution for FY 2007. The funding schedule was developed to substantially increase the funded level of the plan and maintain adequate funding levels over the three-year period ending June 30, 2007.

A Fourth Amendment to the Meet \& Confer Agreement between the Board and the City of Houston was adopted in 2007 (Fourth Amendment). As part of this amendment, another funding schedule was implemented consisting of a $\$ 75$ milIion employer contribution for FY 2008, a $\$ 78.5$ million employer contribution for FY 2009, a $\$ 83.5$ million employer contribution for FY 2010, and a \$88.5 million employer contribution for FY 2011.

The employer contribution amounts for FY 2008 and FY 2009 were not set by actuarial valuations. Therefore, the calculated contribution rates from those valuations are not being contributed. Instead, employer contributions of $\$ 75$ million for FY 2008 and $\$ 78.5$ million for FY 2009 are to be made under the terms of the Fourth Amendment.

The calculated required employer contribution rate for FY 2010 is $19.20 \%$ of payroll. Using an estimated payroll of $\$ 517.0$ million for FY 2010 projects an estimated calculated employer contribution for FY 2010 of $\$ 99.3$ million. This compares to the actual $\$ 83.5$ million employer contribution that will be paid under the terms of the Fourth Amendment.

## Financing objectives and funding policy

The amortization period is set by statute, and was modified under the Meet and Confer. The contribution rate and liabilities are computed using the Entry Age actuarial cost method. The employer contribution rate is the sum of two pieces: the employer normal cost rate and the amortization rate. The normal cost rate is determined as a percent of pay. The employer normal cost is the difference between this and the weighted member contribution rate. The amor-
tization rate is determined as a level percent of pay. It is the amount required to amortize the unfunded actuarial accrued liability over an open period (30 years as of July $1,2008)$. The amortization rate is adjusted for the oneyear deferral in contribution rates.

## 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, 2008 is $70.1 \%$. This is the same funded ratio as in the 2007 valuation.

The calculated employer contribution rate for FY 2010 is $19.20 \%$. This rate is less than the $19.47 \%$ rated calculated in the 2007 valuation, mostly due to the covered payroll being larger than expected due to the active population increase. Please see Table 6 for a detailed analysis of the change in the calculated employer contribution rate from the prior year to this year.

It should be noted that the above information is based on the measurement of the System as of June 30, 2008. The investment markets have suffered tremendous losses since that date. If the actuarial valuation had been performed at the end of October instead of the end of August, the results would likely have been dramatically different. The actuarial gains discussed above would have been completely eliminated by the additional investment losses that have occurred since the valuation date.

In the absence of a significant recovery in the investment markets during the remainder of fiscal year 2009, the contribution rate needed to amortize the UAAL over 30 years will increase over the next few valuation cycles.

## Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on July 1, 2008. The Fourth Amendment between the City and the Board changed the benefit provisions substantially, effective January 1, 2008. 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.

The benefit provisions are summarized in Appendix $B$.

## 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 have not been modified since the previous valuation. The assumptions used in the valuation were adopted by the Board based on our recommendations following an Experience Analysis performed for the five year period ending July 1, 2004.

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.

The actuarial assumptions and methods used in this report comply with the parameters for disclosure that appear in GASB 25.

All assumptions and methods are described in Appendix A.

## Data

Member data for retired, active and inactive members was supplied as of July 1, 2008 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.

Asset information as of July 1, 2008 was taken from the Comprehensive Annual Financial Report for the Year Ended June 30, 2008.

## Plan Experience

As part of each valuation, we examine the System's
experience relative to the assumptions. The aggregate results of these analyses are disclosed in Tables $5 \& 6$. This past fiscal year the System had a total liability loss of approximately $\$ 29.3$ million. Most of the loss can be traced to larger than expected salary increases. Relative to the total liabilities of the System we do not consider this aggregate loss significant. However, this is the fourth valuation in a row to experience a salary loss. We will determine if this recent experience is part of a longterm trend or a short-term fluctuation in conjunction with the next experience study.

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.

## Certification

All of the tables contained in this actuarial valuation report and in the actuarial section of the HMEPS CAFR were prepared by Gabriel, Roeder, Smith \& Company. We certify that the information presented herein is accurate and fairly portrays the actuarial position of HMEPS as of July 1, 2008.

All of our work conforms with generally accepted actuaria principles and practices, and with 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


Joseph P. Newton, FSA, EA, MAAA
Senior Consultant


Lewis Ward Consultant

Membership

- Number of:

| - Active members | 12,653 | 12,376 |
| :--- | ---: | ---: |
| - Retirees and beneficiaries | 8,155 | 7,971 |
| - Inactive members | $\underline{5,730}$ | $\underline{5,413}$ |
| - Total | 26,538 | 25,760 |
| - Annualized Payroll supplied by HMEPS | $\$ 483,815$ | $\$ 448,925$ |

Calculated Contribution rates

- Employer
19.20 \%
19.47 \%

Assets

| - Market value | $\$ 2,262,033$ | $\$ 2,344,597$ |
| :--- | ---: | ---: |
| - Actuarial value | $2,310,384$ | $2,193,745$ |
| - Estimation of return on market value | $-0.3 \%$ | $17.9 \%$ |
| - Estimation of return on actuarial value | $9.0 \%$ | $21.5 \%$ |
| - Employer contribution | $\$ 73,272$ | $\$ 70,265$ |
| - Member contribution | $\$ 21,176$ | $\$ 20,966$ |
| - Ratio of actuarial value to market value | $\$ 102.1 \%$ | $93.6 \%$ |

Actuarial Information

| - Employer normal cost | $5.85 \%$ | $5.84 \%$ |
| :--- | :---: | :---: |
| - Unamortized actuarial accrued liability (UAAL) | $\$ 985,986$ | $\$ 934,969$ |
| - Amortization rate | $13.35 \%$ | $13.63 \%$ |
| - Funding period | 30.0 years | 30.0 years |
| - GASB funded ratio | $70.1 \%$ | $70.1 \%$ |

Projected employer contribution based on calculated rate

- Fiscal year ending June 30,

2010
2009

- Projected payroll (millions)
$\$ 517.0$
\$481.8
- Projected employer contribution (millions)
\$99.3
\$93.8
(actual contribution rate set by Meet \& Confer)

Note: Dollar amounts in $\$ 000$, unless otherwise noted
${ }^{1}$ Employee contribution rate is 5\%. Members hired after January 1, 2008 are noncontributory.

## A. ASSETS

1. Current Assets
a. Cash and short term investments
1) Cash on hand \$956
2) Short term investments 50,710
b. Accounts Receivable
3) Sale of investments 52,292
4) Other $\quad 7,589$
c. Total Current Assets \$111,547
2. Long Term Investments
a. US. Government securities
\$46,189
b. Corporate bonds 88,482
c. Capital stocks

487,617
d. Commingled Funds 537,365
e. LP's, real estate trusts, loans and mortgages $\quad \underline{675,680}$
f. Total long term investments \$1,835,333
3. Other Assets

| a. Collateral on securities lending | $\$ 141,334$ |
| :--- | ---: |
| b. Furniture, fixtures and equipment, net | 419 |
| c. Note Receivable - City of Houston | 300,000 |
| d. Accrued interest on note receivable | $\underline{69,894}$ |
| e. Total other assets | $\underline{\$ 511,647}$ |
| Total Assets | $\$ 2,458,527$ |

B. LIABILITIES

1. Current Liabilities
a. Amounts due on asset purchases \$51,158
b. Accrued liabilities 4,002
c. Collateral on securities lending $\quad \underline{141,334}$
2. Total Liabilities 196,494
3. Net Assets Held in Trust \$2,262,033

## C. ASSET ALLOCATION FOR CASH \& LONG TERM INVESTMENTS

| 1. Cash | $0.0 \%$ |
| :--- | ---: |
| 2. Fixed Income | $18.6 \%$ |
| 3. Real Assets | $18.9 \%$ |
| 4. Domestic Equities | $23.5 \%$ |
| 5. International Equities | $20.0 \%$ |
| 6. Alternative Investments | $\mathbf{1 9 . 0 \%}$ |
| 7. Total | $100.0 \%$ |

Note: Dollar amounts in \$000
Columns may not add due to rounding \$196,494

## RECONCILIATION OF PLAN NET ASSETS

Year Ending June 30, 2008
(1)

1. Market value of assets at beginning of year
2. Revenue for the year
a. Contributions

| i. Member contributions | $\$ 21,176$ |
| :--- | ---: | ---: |
| ii. Employer contributions | 73,272 |
| iii. Total | $\$ 94,448$ |

b. Net investment income
i. Interest \$13,453
ii. Dividends 14,381
iii. Earnings from LP's and real estate trusts 13,424
iv. Net appreciation (depreciation) on investments $\quad(64,877)$
v. Interest income - City of Houston note receivable 29,206
vi. Net proceeds from lending securities 1,025
vii. Less investment expenses $(6,540)$
viii. Other
c. Total revenue
3. Expenditures for the year
a. Refunds
\$1,760
b. Benefit payments

169,483
c. Administrative and miscellaneous expenses 6,475
d. Total expenditures
4. Increase in net assets (Item 2c - Item 3d) \$(82,564)
5. Market value of assets at end of year (Item 1 + Item 4)
\$2,262,033

Note: Dollar amounts in $\$ 000$

## CALCULATION OF EXCESS INVESTMENT INCOME

| Item |  |
| :---: | :---: |
| (1) |  |
| 1. Market value of assets at beginning of year |  |
| 2. Net external cash flow during the year |  |
| 3. Market value of assets at end of year |  |
| 4. Actual investment income during the year based on market value: (3) - (2) - (1) |  |
| 5. Assumed earnings rate |  |
| 6. Expected earnings for the year on: |  |
| a. Market value of assets at beginning of year: |  |
| b. Net external cash flow: |  |
| c. Total: $(\mathrm{a})+(\mathrm{b})$ |  |
| 7. Excess investment income for the year: (4) - (6) |  |
| Note: Dollar amounts in \$000 |  |
| DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS |  |
|  | July 1, 2008 <br> (1) |
| 1. Excess (Shortfall) of invested income for current and previous three years |  |
| a. Current year | \$ $(201,863)$ |
| b. Current year - 1 | 188,565 |
| c. Current year - 2 | 141,592 |
| d. Current year - 3 | 66,518 |
| e. Current year - 4 | 118,177 |
| f. Total for five years | \$312,990 |
| 2. Deferral of excess (shortfall) of invested income |  |
| a. Current year (80\%/80\%) | \$ $(161,490)$ |
| b. Current year - $1(60 \% / 0 \%)^{1}$ | 113,139 |
| c. Current year - $2(0 \% / 0 \%)^{1}$ | 0 |
| d. Current year - $3(0 \% / 0 \%)^{1}$ | 0 |
| e. Current year - 4 (0\%/0\%) | 0 |
| f. Total deferred for year | \$(48,351) |
| 3. Market value of assets at end of year | \$2,262,033 |
| 4. Actuarial value of assets at end of year: (3) - (2f) | \$2,310,384 |
| ${ }^{1}$ The Fourth Amendment recognized the deferred gains prior to FY2007 as of July 1, 2007. |  |
| Note: Dollar amounts in \$000 |  |

Year Ending June 30, 2008
(2)
\$2,344,597
$(76,795)$
2,262,033
$\$(5,769)$
8.50\%

199,291
$(3,197)$
196,094
$\$(201,863)$

Note: Dollar amounts in $\$ 000$

## DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

July 1, 2008
(1)
$(201,863)$
188,565
141,592
66,518
118,177
312,990

113,139
0
0
0
$\$(48,351)$
\$2,262,033
\$2,310,384

## ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS

July 1, 2008

1. Active members
a. Retirement benefits
b. Deferred termination benefits

95,592
c. Refunds

13,340
d. Death benefits

55,449
e. Disability benefits
f. Total

| 30,168 |
| ---: |

\$1,694,571
2. Members in Pay Status
$\begin{array}{lr}\text { a. Service retirements } & \$ 1,600,403 \\ \text { b. Disability retirements } & 37,648 \\ \text { c. Beneficiaries } & 131,006 \\ \text { d. Total } & \$ 1,769,057\end{array}$
4. Inactive members
a. Vested terminations
\$131,754
b. Nonvested terminations
c. Total
\$135,276
5. Total actuarial present value of future benefits
\$3,598,904

Note: Dollar amounts in \$000

## CALCULATION OF TOTAL ACTUARIAL GAIN OR LOSS

1. Unfunded actuarial accrued liability (UAAL) as of July 1, 2007
\$934,968
2. Total normal cost for year*
3. Employer contributions during year ending June 30, 2008
$(73,272)$
4. Interest on UAAL for one year 79,472
5. Interest on Item 2 and Item 3 for one-half year $(1,902)$
6. Expected UAAL as of July 1, $2008(1+2+3+4+5)$ \$966,844
7. Actual UAAL as of July 1,2008 \$985,986
8. Actuarial gain/(loss) for the period (6-7) \$(19,142)

## SOURCE OF GAINS/(LOSSES)

9. Asset gain/(loss) (See Table 13)
\$10,163
10. Assumption changes 0
11. Changes from Meet \& Confer 0
12. Total liability gain/(loss) for the period $\quad \$(29,305)$
13. Actuarial gain/(loss) for the period $\$(19,142)$

Note: Dollar amounts in \$000
*Employee contributions are 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

|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation as of July 1 , <br> (1) | Actuarial Accrued Liability (UAAL, in 000s) <br> (2) | Funded Ratio (3) | Calculated Contribution Rate <br> (4) | Funding Period (Years) ${ }^{2}$ <br> (5) | Market Value of Fund (in 000s) <br> (6) | Year <br> Ending June 30, <br> (7) | Covered Compensation (8) | Employer Contributions (9) | Employee Contributions (10) | Benefit Payments and Refunds <br> (11) | Net External Cash Flow (12) |
| 2008 | \$985,986 | 70.1\% | 19.20\% | 30.0 | \$2,262,033 | 2009 | \$483,815 | \$78,500 ${ }^{1}$ | \$19,867 | \$206,531 | \$ $(108,163)$ |
| 2009 | 1,019,254 | 70.1\% | 19.72\% | 30.0 | 2,341,639 | 2010 | 501,037 | 83,500 | 18,596 | 209,262 | $(107,166)$ |
| 2010 | 1,051,618 | 70.2\% | 20.00\% | 29.0 | 2,429,052 | 2011 | 515,707 | 88,500 | 17,353 | 222,240 | $(116,387)$ |
| 2011 | 1,083,059 | 70.2\% | 20.12\% | 28.0 | 2,514,288 | 2012 | 530,199 | 106,046 | 16,116 | 235,303 | $(113,142)$ |
| 2012 | 1,138,251 | 69.6\% | 20.76\% | 27.0 | 2,610,151 | 2013 | 545,285 | 109,726 | 14,921 | 248,731 | $(124,084)$ |
| 2013 | 1,152,426 | 70.1\% | 20.81\% | 26.0 | 2,702,764 | 2014 | 560,545 | 116,376 | 13,759 | 263,523 | $(133,389)$ |
| 2014 | 1,162,848 | 70.6\% | 20.87\% | 25.0 | 2,793,557 | 2015 | 576,405 | 119,960 | 12,638 | 277,103 | $(144,505)$ |
| 2015 | 1,172,463 | 71.1\% | 20.92\% | 24.0 | 2,880,488 | 2016 | 593,015 | 123,741 | 11,566 | 291,506 | $(156,200)$ |
| 2016 | 1,181,043 | 71.5\% | 20.99\% | 23.0 | 2,962,627 | 2017 | 609,834 | 127,583 | 10,530 | 306,564 | $(168,451)$ |
| 2017 | 1,188,478 | 71.9\% | 21.06\% | 22.0 | 3,038,986 | 2018 | 627,391 | 131,685 | 9,547 | 319,819 | $(178,587)$ |
| 2018 | 1,194,436 | 72.3\% | 21.12\% | 21.0 | 3,111,277 | 2019 | 645,746 | 135,975 | 8,618 | 321,490 | $(176,897)$ |

These projections are based on the Fourth Amendment assuming that the benefit provisions that went into effect January 1, 2008 remain in effect throughout the projection. Also, beginning in FY2012, the employer contributions shown above are based on the calculated contribution rate from the actuarial valuation performed one year prior (i.e. the FY 2012 rate is set by the June 30, 2010 valuation). Any changes to future accruals or failure to contribute the calculated rate will change the results of this projection.
1 The agreement between the City and HMEPS includes a $\$ 75$ million employer contribution for FY 2008 , a $\$ 78.5$ million employer contribution for FY 2009 , a $\$ 83.5$ million employer contribution for FY2010, and a $\$ 88.5$ million in FY2011.

[^7]Note: Dollar amounts in $\$ 000$.

## ANALYSIS OF NORMAL COST

July 1, 2008
July 1, 2007

1. Gross normal cost rate
a. Retirement benefits
b. Deferred termination benefits
c. Refunds
d. Disability benefits
e. Death benefits
f. Total
(1)
(2)
$\qquad$

|  |  |
| :---: | :---: |
| $4.33 \%$ | $4.29 \%$ |
| $0.63 \%$ | $0.63 \%$ |
| $0.33 \%$ | $0.35 \%$ |
| $0.26 \%$ | $0.27 \%$ |
| $0.30 \%$ | $0.30 \%$ |
| $5.85 \%$ | $5.84 \%$ |

Note: Dollar amounts in \$000

## CHANGE IN CALCULATED CONTRIBUTION RATE SINCE THE PRIOR VALUATION

1. Calculated Contribution Rate as of July 1, 2007
19.47\%
2. Change in Contribution Rate During Year
a. Change in Employer Normal Cost 0.01\%
b. Assumption changes $0.00 \%$
c. Recognition of prior asset losses (gains) (0.76\%)
d. Actuarial (gain) loss from current year asset performance 0.61\%
e. Actuarial (gain) loss from liability sources 0.44\%
f. Impact of City contributing different than expected $0.27 \%$
g. Effect of Payroll growing faster than Payroll Growth Rate (0.63\%)
h. Effect of resetting amortization period to 30 years (0.21\%)
i. Total Change
(0.27\%)
3. Calculated Rate as of July 1, 2008
19.20\%
*The City will contribute $\$ 78.5$ million in FY2009 compared to an approximate ARC of $\$ 97$ million

## CALCULATION OF ANNUAL REQUIRED CONTRIBUTION RATE



## Note: Dollar amounts in \$000

1 Includes actual current receivable for actives who have entered into an obligation. It's anticipated that a majority of the receivable will be received by the next valuation date.
HISTORICAL SOLVENCY TEST

| Valuation Date | Aggregated Accrued Liabilities for |  |  | Actuarial <br> Value of Assets | by Reported Assets |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Active | Retirees Beneficiaries | Members |  |  |  |  |
|  | Members Contributions | and Vested Terminations ${ }^{1}$ | (City <br> Financed Portion) |  | (5)/(2) | [(5)-(2)]/(3) | [(5)-(2)-(3)]/ <br> (4) |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| July 1, 1991 | \$32,606 | \$289,174 | \$366,542 | \$558,144 | 100.0\% | 100.0\% | 64\% |
| July 1, 1992 | 32,850 | 317,849 | 414,600 | 608,524 | 100.0\% | 100.0\% | 62\% |
| July 1, 1993 | 32,866 | 369,561 | 437,894 | 606,637 | 100.0\% | 100.0\% | 47\% |
| July 1, 1994 | 32,410 | 384,100 | 470,189 | 713,696 | 100.0\% | 100.0\% | 63\% |
| 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\% | 67\% |
| July 1, 1998 | 34,781 | 502,335 | 703,025 | 1,095,617 | 100.0\% | 100.0\% | 79\% |
| 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\% | 58\% |
| 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\% | 7\% |
| 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\% | 7\% |
| 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\% |

Note: Dollar amounts in $\$ 000$
1 Column (3) included AAL for DROP participants until 2003, now in Column (4)

## SCHEDULE OF FUNDING PROGRESS

| Date | Actuarial Value of Assets (AVA) | Actuarial Accrued Liability (AAL) | Unfunded Actuarial Accrued Liability (UAAL) (3) - (2) | Funded Ratio (2)/(3) | Annual Payroll | UAAL as \% of Payroll (4)/(6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| July 1, 1992 | \$608,524 | \$765,299 | \$156,775 | 79.5\% | \$314,686 | 49.8\% |
| July 1, 1993 | 660,637 | 840,321 | 179,684 | 78.6\% | 340,249 | 52.8\% |
| July 1, 1994 | 713,696 | 886,699 | 173,003 | 80.5\% | 366,561 | 47.2\% |
| July 1, 1995 | 770,189 | 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\% |

## HISTORICAL CITY CONTRIBUTIONS

| Valuation Date | Calculated Contribution Rate ${ }^{1}$ | Time Period for Contribution | Actual <br> 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 |
| July 1, 1989 | 6.88 | January 1, 1990 through December 31, 1990 | 6.27 |
| July 1, 1990 | 6.23 | January 1, 1991 through December 31, 1991 | 6.27 |
| July 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 |
| July 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 |
| July 1, 1995 | 9.20 | July 1, 1996 through June 30, 1997 | 9.20 |
| July 1, 1996 | 9.10 | July 1, 1997 through June 30, 1998 | 9.10 |
|  |  | July 1, 1998 through June 30, 1999 | 9.10 |
| July 1, 1998 | 9.30 | July 1, 1999 through June 30, 2000 | 9.30 |
| July 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 | 92.552,3 |
| July 1, 2004 | 29.43 | July 1, 2005 through June 30, 2006 | $15.49^{3}$ |
| July 1, 2005 | 24.10 | July 1, 2006 through June 30, 2007 | $15.89{ }^{3}$ |
| July 1, 2006 | 24.63 | July 1, 2007 through June 30, 2008 | N/A |
| July 1, 2007 | 19.47 | July 1, 2008 through June 30, 2009 | N/A |
| July 1, 2008 | 19.20 | July 1, 2009 through June 30, 2010 | N/A |

[^8]DISTRIBUTION OF GROUP A ACTIVE MEMBERS BY AGE AND BY YEARS OF SERVICE

| Attained Age | No. \& Avg Comp. | 1 <br> No. \& Avg. Comp. | 2 <br> No. \& Avg. <br> Comp. | $\begin{gathered} 3 \\ \text { No. \& Avg. } \\ \text { Comp. } \\ \hline \end{gathered}$ | 4 <br> No. \& Avg. Comp. | 5-9 <br> No. \& Avg. Comp. | $10-14$ <br> No. \& Avg. Comp. | 15-19 <br> No. \& Avg. Comp. | $20-24$ <br> No. \& Avg Comp. | $25-29$ <br> No. \& Avg. Comp. | 30-34 <br> No. \& Avg. Comp. | 35 \& Over <br> No. \& Avg. <br> Comp. | Total <br> No. \& Avg. Comp. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 25 | 105 | 80 | 53 | 42 | 3 | 3 |  |  |  |  |  |  | 286 |
|  | \$24,258 | \$25,031 | \$25,657 | \$25,215 | \$25,665 | \$33,121 |  |  |  |  |  |  | \$24,982 |
| 25-29 | 178 | 189 | 179 | 105 | 43 | 84 | 2 |  |  |  |  |  | 780 |
|  | \$29,414 | \$30,945 | \$31,709 | \$31,387 | \$29,301 | \$29,853 | \$25,762 |  |  |  |  |  | \$30,609 |
| 30-34 | 115 | 173 | 146 | 121 | 74 | 160 | 29 |  |  |  |  |  | 818 |
|  | \$30,941 | \$32,704 | \$32,284 | \$33,180 | \$35,056 | \$35,489 | \$35,584 |  |  |  |  |  | \$33,311 |
| 35-39 | 115 | 165 | 143 | 134 | 71 | 249 | 113 | 57 | 1 |  |  |  | 1,048 |
|  | \$33,232 | \$34,353 | \$37,436 | \$36,882 | \$34,641 | \$36,364 | \$41,137 | \$38,292 | \$43,861 |  |  |  | \$36,426 |
| 40-44 | 69 | 151 | 130 | 138 | 84 | 252 | 171 | 169 | 48 | 1 |  |  | 1,213 |
|  | \$32,549 | \$36,115 | \$38,407 | \$37,998 | \$35,907 | \$38,259 | \$42,438 | \$43,788 | \$38,698 | \$33,500 |  |  | \$38,864 |
| 45-49 | 87 | 159 | 138 | 124 | 91 | 332 | 245 | 248 | 152 | 138 | 2 |  | 1,716 |
|  | \$32,677 | \$35,820 | \$35,197 | \$38,461 | \$42,606 | \$38,287 | \$42,773 | \$43,692 | \$44,804 | \$43,478 | \$32,493 |  | \$40,177 |
| 50-54 | 59 | 115 | 125 | 125 | 79 | 275 | 236 | 264 | 141 | 139 | 21 |  | 1,579 |
|  | \$38,683 | \$33,674 | \$38,719 | \$38,760 | \$40,091 | \$37,603 | \$41,582 | \$48,601 | \$48,954 | \$49,385 | \$62,718 |  | \$42,480 |
| 55-59 | 30 | 85 | 80 | 108 | 64 | 213 | 211 | 193 | 104 | 84 | 28 | 2 | 1,202 |
|  | \$46,244 | \$38,265 | \$39,834 | \$41,154 | \$39,696 | \$41,355 | \$46,928 | \$47,599 | \$50,689 | \$45,278 | \$56,620 | \$59,486 | \$44,499 |
| 60-64 | 16 | 48 | 46 | 61 | 42 | 141 | 137 | 99 | 52 | 44 | 12 | 7 | 705 |
|  | \$50,096 | \$45,534 | \$45,290 | \$43,219 | \$42,987 | \$41,751 | \$46,158 | \$48,826 | \$57,509 | \$56,750 | \$55,963 | \$67,262 | \$47,073 |
| 65 \& Over | 5 | 9 | 12 | 16 | 13 | 57 | 62 | 32 | 13 | 8 | 2 | 6 | 235 |
|  | \$32,452 | \$66,284 | \$54,735 | \$37,630 | \$37,598 | \$42,617 | \$42,489 | \$51,145 | \$49,813 | \$52,203 | \$76,718 | \$52,532 | \$45,704 |
| Total | 783 | 1,175 | 1,052 | 974 | 564 | 1,766 | 1,206 | 1,062 | 511 | 414 | 65 | 15 | 9,587 |
|  | \$31,915 | \$34,266 | \$35,855 | \$36,810 | \$37,741 | \$38,028 | \$43,235 | \$46,051 | \$47,992 | \$47,381 | \$58,345 | \$60,333 | \$39,340 |
|  |  | Average: | Age: | 45.31 | Number of participants: F |  |  | Fully vested: <br> Not Vested: | 5,039 |  | Males: | 5,312 |  |
|  |  |  | Service: | 8.67 |  |  |  | 4,548 |  | Females: | 4,275 |  |

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

| 0 <br> Attained No. \& Avg. <br> Age Comp. | 1 <br> No. \& Avg. Comp. | 2 <br> No. \& Avg. Comp. | 3 <br> No. \& Avg. Comp. | 4 <br> No. \& Avg. Comp. | 5-9 <br> No. \& Avg. Comp. | 10-14 <br> No. \& Avg. <br> Comp. | 15-19 <br> No. \& Avg. <br> Comp. | 20-24 <br> No. \& Avg. Comp. | 25-29 <br> No. \& Avg. Comp. | 30-34 <br> No. \& Avg. Comp. | 35 \& Over <br> No. \& Avg. Comp. | Total No. \& Avg. Comp. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 25 |  |  |  |  |  |  |  |  |  |  |  |  |
| 25-29 |  |  |  |  | 6 | 2 |  |  |  |  |  | 8 |
|  |  |  |  |  | \$32,216 | \$34,617 |  |  |  |  |  | \$32,816 |
| 30-34 |  |  |  |  | 27 | 53 |  |  |  |  |  | 80 |
|  |  |  |  |  | \$30,191 | \$30,481 |  |  |  |  |  | \$30,383 |
| 35-39 |  |  |  |  | 49 | 160 | 43 |  |  |  |  | 252 |
|  |  |  |  |  | \$31,421 | \$34,389 | \$35,524 |  |  |  |  | \$34,005 |
| 40-44 |  |  |  |  | 38 | 173 | 164 | 32 |  |  |  | 407 |
|  |  |  |  |  | \$31,402 | \$34,523 | \$36,758 | \$34,706 |  |  |  | \$35,147 |
| 45-49 |  |  |  |  | 37 | 138 | 154 | 68 | 54 |  |  | 451 |
|  |  |  |  |  | \$34,203 | \$34,888 | \$36,130 | \$35,869 | \$33,673 |  |  | \$35,258 |
| 50-54 |  |  |  |  | 34 | 145 | 153 | 56 | 41 | 5 |  | 434 |
|  |  |  |  |  | \$35,222 | \$36,121 | \$38,271 | \$40,352 | \$40,171 | \$42,400 |  | \$37,810 |
| 55-59 |  |  |  |  | 25 | 124 | 116 | 40 | 19 | 3 |  | 327 |
|  |  |  |  |  | \$39,417 | \$34,509 | \$36,382 | \$38,808 | \$37,151 | \$40,040 |  | \$36,279 |
| 60-64 |  |  |  |  | 13 | 62 | 56 | 25 | 17 | 4 | 1 | 178 |
|  |  |  |  |  | \$37,292 | \$38,229 | \$37,891 | \$45,300 | \$45,322 | \$55,199 | \$28,812 | \$40,053 |
| 65 \& Over |  |  |  |  | 1 | 24 | 21 | 6 | 6 |  |  | 58 |
|  |  |  |  |  | \$21,616 | \$35,465 | \$35,086 | \$46,581 | \$48,138 |  |  | \$37,550 |
| Total |  |  |  |  | 230 | 881 | 707 | 227 | 137 | 12 | 1 | 2,195 |
|  |  |  |  |  | \$33,462 | \$34,860 | \$36,852 | \$38,651 | \$38,179 | \$46,076 | \$28,812 | \$36,013 |

PARTICIPANT INFORMATION

| DISTRIBUTION OF GROUP D ACTIVE MEMBERS BY AGE AND BY Years of Service |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 |  |  | 3 |  |  |  |  |  |  |  |  |  |
| Attained Age | No. \& Avg. <br> Comp. | No. \& Avg. Comp. | No. \& Avg. Comp. | No. \& Avg. Comp. | No. \& Avg. Comp. | No. \& Avg. Comp. | No. \& Avg. <br> Comp. | $\begin{aligned} & \text { g. No. \& Avg. } \\ & \text { Comp. } \\ & \hline \end{aligned}$ | No. \& Avg. Comp. | No. \& Avg. <br> Comp. | No. \& Avg. Comp. | No. \& Avg. Comp. | No. \& Avg. Comp. |
| Under 25 | 139 |  |  |  |  |  |  |  |  |  |  |  | 139 |
|  | \$24,634 |  |  |  |  |  |  |  |  |  |  |  | \$24,634 |
| 25-29 | 178 |  |  |  |  |  |  |  |  |  |  |  | 178 |
|  | \$28,059 |  |  |  |  |  |  |  |  |  |  |  | \$28,059 |
| 30-34 | 118 |  |  |  |  |  |  |  |  |  |  |  | 118 |
|  | \$34,667 |  |  |  |  |  |  |  |  |  |  |  | \$34,667 |
| 35-39 | 99 |  |  |  |  |  |  |  |  |  |  |  | 99 |
|  | \$31,034 |  |  |  |  |  |  |  |  |  |  |  | \$31,034 |
| 40-44 | 104 |  |  |  |  |  |  |  |  |  |  |  | 104 |
|  | \$32,532 |  |  |  |  |  |  |  |  |  |  |  | \$32,532 |
| 45-49 | 96 |  |  |  |  |  |  |  |  |  |  |  | 96 |
|  | \$35,234 |  |  |  |  |  |  |  |  |  |  |  | \$35,234 |
| 50-54 | 65 |  |  |  |  |  |  |  |  |  |  |  | 65 |
|  | \$36,718 |  |  |  |  |  |  |  |  |  |  |  | \$36,718 |
| 55-59 | 46 |  |  |  |  |  |  |  |  |  |  |  | 46 |
|  | \$40,853 |  |  |  |  |  |  |  |  |  |  |  | \$40,853 |
| 60-64 | 14 |  |  |  |  |  |  |  |  |  |  |  | 14 |
|  | \$48,406 |  |  |  |  |  |  |  |  |  |  |  | \$48,406 |
| 65 \& Over | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
|  | \$41,745 |  |  |  |  |  |  |  |  |  |  |  | \$41,745 |
| Total | 871 |  |  |  |  |  |  |  |  |  |  |  | 871 |
|  | \$31,703 |  |  |  |  |  |  |  |  |  |  |  | \$31,703 |
|  |  | Average: | Age: | 35.93 | Num | ber of partic | cipants: | Fully vested: | - |  | Males: | 474 |  |
|  |  |  | Service: | 0.26 |  |  |  | Not Vested: | 871 |  | Females: | 397 |  |

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

| Attained <br> Age | 0 <br> No. \& Avg. Comp. | 1 <br> No. \& Avg. Comp. | 2 <br> No. \& Avg. Comp. | 3 <br> No. \& Avg. Comp. | 4 <br> No. \& Avg. Comp. | 5-9 <br> No. \& Avg. Comp. | 10-14 <br> No. \& Avg. Comp. | 15-19 <br> No. \& Avg. <br> Comp. | 20-24 <br> No. \& Avg. Comp. | 25-29 <br> No. \& Avg. <br> Comp. | 30-34 <br> No. \& Avg. <br> Comp. | 35 \& Over <br> No. \& Avg. <br> Comp. | Total <br> No. \& Avg. Comp. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 25 | 244 | 80 | 53 | 42 | 3 | 3 |  |  |  |  |  |  | 425 |
|  | \$24,472 | \$25,031 | \$25,657 | \$25,215 | \$25,665 | \$33,121 |  |  |  |  |  |  | \$24,868 |
| 25-29 | 356 | 189 | 179 | 105 | 43 | 90 | 4 |  |  |  |  |  | 966 |
|  | \$28,737 | \$30,945 | \$31,709 | \$31,387 | \$29,301 | \$30,011 | \$30,190 |  |  |  |  |  | \$30,158 |
| 30-34 | 233 | 173 | 146 | 121 | 74 | 187 | 82 |  |  |  |  |  | 1,016 |
|  | \$32,828 | \$32,704 | \$32,284 | \$33,180 | \$35,056 | \$34,724 | \$32,286 |  |  |  |  |  | \$33,238 |
| 35-39 | 214 | 165 | 143 | 134 | 71 | 298 | 273 | 100 | 1 |  |  |  | 1,399 |
|  | \$32,215 | \$34,353 | \$37,436 | \$36,882 | \$34,641 | \$35,551 | \$37,182 | \$37,102 | \$43,861 |  |  |  | \$35,609 |
| 40-44 | 173 | 151 | 130 | 138 | 84 | 290 | 344 | 333 | 80 | 1 |  |  | 1,724 |
|  | \$32,539 | \$36,115 | \$38,407 | \$37,998 | \$35,907 | \$37,360 | \$38,458 | \$40,326 | \$37,101 | \$33,500 |  |  | \$37,604 |
| 45-49 | 183 | 159 | 138 | 124 | 91 | 369 | 383 | 402 | 220 | 192 | 2 |  | 2,263 |
|  | \$34,018 | \$35,820 | \$35,197 | \$38,461 | \$42,606 | \$37,877 | \$39,932 | \$40,795 | \$42,042 | \$40,720 | \$32,493 |  | \$38,987 |
| 50-54 | 124 | 115 | 125 | 125 | 79 | 309 | 381 | 417 | 197 | 180 | 26 |  | 2,078 |
|  | \$37,653 | \$33,674 | \$38,719 | \$38,760 | \$40,091 | \$37,341 | \$39,504 | \$44,811 | \$46,509 | \$47,286 | \$58,811 |  | \$41,324 |
| 55-59 | 76 | 85 | 80 | 108 | 64 | 238 | 335 | 309 | 144 | 103 | 31 | 2 | 1,575 |
|  | \$42,981 | \$38,265 | \$39,834 | \$41,154 | \$39,696 | \$41,152 | \$42,331 | \$43,388 | \$47,389 | \$43,779 | \$55,016 | \$59,486 | \$42,686 |
| 60-64 | 30 | 48 | 46 | 61 | 42 | 154 | 199 | 155 | 77 | 61 | 16 | 8 | 897 |
|  | \$49,307 | \$45,534 | \$45,290 | \$43,219 | \$42,987 | \$41,375 | \$43,688 | \$44,876 | \$53,545 | \$53,565 | \$55,772 | \$62,456 | \$45,701 |
| 65 \& Over | 7 | 9 | 12 | 16 | 13 | 58 | 86 | 53 | 19 | 14 | 2 | 6 | 295 |
|  | \$35,107 | \$66,284 | \$54,735 | \$37,630 | \$37,598 | \$42,255 | \$40,529 | \$44,782 | \$48,792 | \$50,461 | \$76,718 | \$52,532 | \$44,074 |
| Total | 1,654 | 1,175 | 1,052 | 974 | 564 | 1,996 | 2,087 | 1,769 | 738 | 551 | 77 | 16 | 12,653 |
|  | \$31,804 | \$34,266 | \$35,855 | \$36,810 | \$37,741 | \$37,502 | \$39,700 | \$42,375 | \$45,119 | \$45,093 | \$56,433 | \$58,363 | \$38,237 |

HISTORICAL ACTIVE PARTICIPANT DATA

| Valuation Date | Active Count | Average Age | Average Service | Covered Payroll | Average Salary | Percent 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\%) |
| $1998{ }^{1}$ | 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\% |
| $2001{ }^{1}$ | 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\%) |
| $2005{ }^{2}$ | 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\% |

Note: Dollar amounts in \$000
1 Excludes DROP participants
2 Beginning with 2005, 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 $\$ 31,419$.

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

| Valuation July 1, | Added to Rolls |  | Removed from Rolls |  | Rolls-End of Year |  | \% Increase in Annual Allowances | Average Annual Allowances |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Annual Allowances | Number | Annual Allowances | Number | Annual Allowances |  |  |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| 1994 | 306 | \$2,474 | 227 | \$1,593 | 4,268 | \$33,971 | 4.8\% | \$7,959 |
| 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 | 16.0\% | 17,935 |
| 2008 | 464 | 11,052 | 280 | 3,420 | 8,155 | 150,592 | 5.3\% | 18,466 |

[^9]
## MEMBERSHIP DATA

July 1, 2008
(1)

1. Active members
a. Number
12,653
b. Number vested
7,234
c. Total payroll
\$483,815,000
d. Average salary 38,237
e. Average age 45.2
f. Average service
9.3
2. Inactive participants (counts)
a. Vested 2,931
b. Total annual benefits (deferred) \$19,810,841
c. Average annual benefit 6,759
d. NonVested 2,799
3. Service retirees
a. Number 6,186
b. Total annual benefits \$131,764,882
c. Average annual benefit 21,300
d. Average age 66.7
4. Disabled retirees
a. Number 428
b. Total annual benefits $\$ 3,647,751$
c. Average annual benefit 8,523
d. Average age 62.2
5. Beneficiaries and spouses
a. Number

1,541
b. Total annual benefits
\$15,179,749
c. Average annual benefit

9,851
d. Average age
68.5

## ESTIMATION OF INVESTMENT RETURN

| Item | Market Value | Actuarial Value |
| :--- | ---: | ---: |
| $(1)$ | $(2)$ | $(3)$ |
| 1. Assets as of July 1, 2007 (A) | $\$ 2,344,597$ | $\$ 2,193,745$ |
| 2. Contributions during FY08 | 94,448 | 94,448 |
| 3. Benefit payments made during FY08 | 169,483 | 169,483 |
| 4. Refunds of contributions during FY08 | 1,760 | 1,760 |
| 5. Expenses during FY08 | 6,475 | 6,475 |
| 6. Investment return during FY08 | 706 | 199,909 |
| 7. Assets as of July 1, 2008 (B): (1 + 2-3-4-5+6) | $2,262,033$ | $2,310,384$ |
| 8. Approximate rate of return on average invested assets | $(5,769)$ | 193,434 |
| $\quad$ a. Net investment income $(6-5=I)$ | $-0.25 \%$ | $8.97 \%$ |

Note: Dollar amounts in \$000

INVESTMENT EXPERIENCE GAIN OR LOSS

| Item | Valuation as of 6/30/2008 | Valuation as of 6/30/2007 |
| :---: | :---: | :---: |
| (1) | (2) | (3) |
| 1. Actuarial assets, prior valuation | \$2,193,745 | \$1,867,293 |
| 2. Total contributions since prior valuation | \$94,448 | \$91,231 |
| 3. Benefits and refunds since prior valuation | \$ $(171,243)$ | \$(159,114) |
| 4. Assumed net investment income at 8.5\% |  |  |
| a. Beginning assets | \$186,468 | \$158,720 |
| b. Contributions | 3,932 | 3,798 |
| c. Benefits and refunds paid | $(7,129)$ | $(6,624)$ |
| d. Total | \$183,271 | \$155,894 |
| 5. Expected actuarial assets (Sum of Items 1 through 4) | \$2,300,221 | \$1,955,304 |
| 6. Actual actuarial assets, this valuation | \$2,310,384 | \$2,193,745 |
| 7. Early recognition of deferred investment gains | \$0 | \$135,198 |
| 8. Asset gain (loss) since prior valuation (Item 6 - Item 5 - Item 7) | \$10,163 | \$103,243 |

Note: Dollar amounts in \$000
HISTORY OF INVESTMENT RETURNS

| For Fiscal Year Ending | Market Value ${ }^{1}$ | Actuarial Value |
| :---: | :---: | :---: |
| (1) | (2) | (3) |
| June 30, 2000 | 22.10\% | 13.00\% |
| June 30, 2001 | (4.56\%) | 8.97\% |
| June 30, 2002 | (7.99\%) | 3.64\% |
| 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\% |
| Average Return - last 5 years | 12.77\% | 9.37\% |
| Average Return - last 9 years | 8.01\% | 8.19\% |
| 1 Dollar-weighted return |  |  |

## Summary of Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the July 1, 2008, actuarial valuation. These assumptions were adopted by the Board effective for the July 1, 2004 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 benefit.

Future salary increases are also 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 in addition to the contributions of the participant 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 based on the market value of assets with a five-year phase-in of actual investment return in excess of (less than) expected investment income. Expected investment income is determined using the assumed investment return rate and the market 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. 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 general increase, as follows:

| Years <br> of Service | Service-related <br> Component | Total Annual <br> Rate of Increase* |
| :---: | :---: | :---: |
| $(1)$ | $2.50 \%$ | $(3)$ |
| 0 | 2.00 | $5.50 \%$ |
| 1 | 1.75 | 5.00 |
| 2 | 1.25 | 4.75 |
| 3 | 1.00 | 4.25 |
| 4 | 1.00 | 4.00 |
| 5 | 1.00 | 4.00 |
| 6 | 1.00 | 4.00 |
| 7 | 0.50 | 4.00 |
| 8 | 0.50 | 3.50 |
| 9 | 0.00 | 3.50 |
| 10 or more |  | 3.00 |

* Including 3.00\% Inflation Component and 0.0\% General Increase Rate
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 below).
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. Mortality rates (for active and retired members)

- Healthy males - Based on the 1994 Uninsured Pensioners Mortality Tables for males. Rates are set-forward one year.
- Healthy females - Based on the 1994 Uninsured Pensioners Mortality Tables for females. Rates are set-forward one year.
- Disabled males and females - 1965 Railroad Retirement Board Disabled Life Table. Rates are set-back one year for males and 5 years for females.

Sample rates are shown in table below:
f. 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 below.

## 6. Other Assumptions

a. Percent married: $70 \%$ of employees are assumed to be married. (No beneficiaries other than the spouse assumed.)
b. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.
c. Percent electing annuity on death (when eligible): All of the spouses of vested, married participants are assumed to elect an annuity.
d. Percent electing deferred termination benefit: Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.
e. There will be no recoveries once disabled.
f. No surviving spouse will remarry and there will be no children's benefit.

Retirement Rates

|  | Expected Retirements per 100 Lives |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Group A \& B Members |  | Group D Members |  |
| Age | Males | Females | Males | Females |
| (1) | (2) | (3) | (4) | (5) |
| 50 | 20 | 13 | 5 | 5 |
| 51-54 | 14 | 13 | 5 | 5 |
| 55 | 14 | 15 | 6 | 6 |
| 56 | 14 | 15 | 7 | 7 |
| 57 | 14 | 15 | 8 | 8 |
| 58 | 14 | 15 | 9 | 9 |
| 59 | 14 | 15 | 10 | 10 |
| 60 | 16 | 16 | 12 | 12 |
| 61 | 16 | 18 | 15 | 15 |
| 62 | 30 | 30 | 35 | 35 |
| 63 | 30 | 25 | 25 | 25 |
| 64 | 22 | 25 | 22 | 25 |
| 65 | 28 | 25 | 28 | 25 |
| 66-69 | 22 | 19 | 22 | 19 |
| 70 | 100 | 100 | 100 | 100 |

Expected Deaths Per 100 Lives

|  | Expected Deaths per 100 Lives |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Healthy | Healthy | Disabled | Disabled |
| Age | Males | Females | Males | Females |
| (1) | (2) | (3) | (6) | (7) |
| 25 | 0.07 | 0.03 | 4.41 | 4.41 |
| 30 | 0.09 | 0.04 | 4.41 | 4.41 |
| 35 | 0.09 | 0.05 | 4.41 | 4.41 |
| 40 | 0.12 | 0.08 | 4.41 | 4.41 |
| 45 | 0.19 | 0.11 | 4.43 | 4.41 |
| 50 | 0.31 | 0.17 | 4.50 | 4.44 |
| 55 | 0.53 | 0.28 | 4.72 | 4.53 |
| 60 | 0.97 | 0.55 | 5.21 | 4.78 |
| 65 | 1.75 | 1.04 | 5.92 | 5.33 |
| 70 | 2.79 | 1.61 | 7.14 | 6.11 |
| 75 | 4.39 | 2.72 | 9.06 | 7.47 |
| 80 | 7.38 | 4.73 | 12.16 | 9.55 |

Probability of Decrement Due to Withdrawal - Male Members

| Years of Service |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | $10+$ |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 20 | 0.3384 | 0.2667 | 0.2137 | 0.1759 | 0.1499 | 0.1290 | 0.1173 | 0.1177 | 0.1264 | 0.1350 | 0.1518 |
| 30 | 0.2555 | 0.2043 | 0.1644 | 0.1352 | 0.1147 | 0.0995 | 0.0895 | 0.0848 | 0.0839 | 0.0840 | 0.0876 |
| 40 | 0.1893 | 0.1506 | 0.1197 | 0.0971 | 0.0812 | 0.0703 | 0.0622 | 0.0554 | 0.0494 | 0.0445 | 0.0396 |
| 50 | 0.1483 | 0.1141 | 0.0873 | 0.0676 | 0.0540 | 0.0451 | 0.0390 | 0.0341 | 0.0297 | 0.0249 | 0.0191 |
| 60 | 0.1271 | 0.0931 | 0.0677 | 0.0471 | 0.0327 | 0.0239 | 0.0201 | 0.0209 | 0.0246 | 0.0246 | 0.0261 |

Probability of Decrement Due to Withdrawal - Female Members

| Years of Service |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | $10+$ |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 20 | 0.2955 | 0.2470 | 0.2142 | 0.1877 | 0.1687 | 0.1515 | 0.1353 | 0.1251 | 0.1235 | 0.1286 | 0.1385 |
| 30 | 0.2288 | 0.1931 | 0.1638 | 0.1416 | 0.1251 | 0.1121 | 0.1013 | 0.0931 | 0.0875 | 0.0833 | 0.0795 |
| 40 | 0.1708 | 0.1423 | 0.1167 | 0.0990 | 0.0860 | 0.0769 | 0.0703 | 0.0640 | 0.0567 | 0.0478 | 0.0368 |
| 50 | 0.1302 | 0.1019 | 0.0824 | 0.0676 | 0.0579 | 0.0514 | 0.0466 | 0.0421 | 0.0367 | 0.0296 | 0.0207 |
| 60 | 0.1064 | 0.0705 | 0.0634 | 0.0481 | 0.0405 | 0.0348 | 0.0297 | 0.0270 | 0.0268 | 0.0281 | 0.0303 |

Rates of Decrement Due to Disability

| Age | Males | Females |
| :---: | :---: | :---: |
| 20 | .00045 | .00043 |
| 25 | .00045 | .00043 |
| 30 | .00045 | .00043 |
| 35 | .00054 | .00051 |
| 40 | .00081 | .00077 |
| 45 | .00162 | .00153 |
| 50 | .00360 | .00340 |
| 55 | .00765 | .00723 |
| 60 | .01566 | .01479 |

Rates of disability are reduced to zero once a member becomes eligible for retirement.
Service Connected Deaths and Disabilities assumed to be $10 \%$ of decrement
g. Assumed age for commencement of deferred benefits: Members electing to receive a deferred benefit are assumed to commence receipt at the first age at which unreduced benefits are available.
h. Administrative expenses: The assumed investment return rate represents the anticipated net return after payment of all investment and administrative expenses.
i. Pay increase timing: Beginning of (fiscal) year. This is equivalent to assuming that reported pays
represent amounts paid to members during the year ended on the valuation date.
j. Decrement timing: Decrements of all types are assumed to occur mid-year.
k. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
I. Decrement relativity: Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.
m. 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.
n. Benefit Service: All members are assumed to accrue 1 year of service each year. Exact 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 (ii) members and beneficiaries receiving benefits.

The data for active members included birth date, sex, date of credited service, 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 nonchildren 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, bad, or inconsistent data. These had no material impact on the results presented.

## 8. Group Transfers

Beginning with the July 1, 2006 valuation it as assumed that $20 \%$ of the then current Group B members would transfer to Group A at the rate of 5\% per year for the next four years. As of the July 1, 2008 valuation we still have two years of the assumption remaining and therefore we are assuming that $5 \%$ of the Group B members will transfer to Group A each year for the next two years, ultimately resulting in $10 \%$ of current Group B members transferring to Group A.

## 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 Financial Executive, 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.

## 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.

## 4. Normal Retirement

a. Eligibility

Prior to January 1, 2005 (with 68 points as of January 1, 2005):

The earliest of: age 62 and 5 years of Credited Service 5 years of Credited Service, and age plus years of Credited Service equal 70 or more age 65 (Group C only)

On or after January 1, 2005 (less than 68 points as of January 1, 2005):

The earliest of:
Age 62 and 5 years of Credited Service 5 years of Credited Service, and age plus years of Credited Service equal 75 or more with minimum age 50

For employees newly hired on or after January 1, 2008 (Group D):
Age 62 and 5 years of Credited Service
b. 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\% for Credited Service greater than 10 years but less than 20 years plus $4.25 \%$ for FAS for each year of Credited Service greater than 20 years (excludes current DROP participants). Maximum benefits $90 \%$ 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 each year of Credited Service from 10 through 20, and $2.75 \%$ of FAS for each year of Credited Service over 20. 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 will apply to service 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 Credited Service greater than 20 years. 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 each year of Credited Service from 10 through 20, and $2.50 \%$ of FAS for each year of Credited Service over 20. 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 over 25. Maximum benefit is $90 \%$ of FAS for all future retirees.

## 5. 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.

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.

## 6. 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.

## 7. Service-Connected Disability Retirement

a. Eligibility

Any age
b. Benefit

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.

Group B and Group D: Accrued normal retirement benefit, but not less than $20 \%$ of final monthly salary at time of disability.

## 8. Non-service-Connected Disability Retirement <br> a. Eligibility <br> 5 years of Credited Service.

## b. Benefit

Accrued normal retirement benefit payable immediately.

## 9. Pre-retirement Survivor Benefits

A. Service-connected
a. Eligibility

Any age or Credited Service
b. 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.
B. Non service-connected
a. Eligibility

5 years of Credited Service
b. Benefit

Benefits for survivorship and terminated vested Group D members after January 1, 2008:

If there is a surviving spouse, $50 \%$ of accrued normal retirement benefit payable to the spouse plus $10 \%$ of accrued normal retirement benefit to each qualifying dependent to a maximum of $20 \%$ for all dependents. If there is no surviving spouse, dependent benefits are doubled.

## For all 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.

## 10. Postretirement Survivor Benefits

## All Groups except Group D members:

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.

## Group D members:

Life only to the retiree. Group D members may elect other options based on actuarial factors.

## 11. Benefit Adjustments

Before January 1, 2005:
Each year, effective February 1, monthly benefits will be increased $4.0 \%$, not compounded, for all retirees and survivors whose benefit was effective on or before January 1 of the current year.

## On or after January 1, 2005:

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. Group D members may elect an actuarially equivalent optional form of payment with a COLA feature.

## 12. Contribution Rates

a. Members

5\% of salary only for the Group A members. None for the 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. As negotiated in the meet and confer agreement, the city contributions will be $\$ 69$ million for FY 2006, $\$ 72$ million for FY 2007, $\$ 75$ million for FY 2008, $\$ 78.5$ million for FY 2009, $\$ 83.5$ million for FY 2010, and \$88.5 million for FY 2011.

## 13. Deferred Retirement Option

a. Eligibility

Participants 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 Credits-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 cur-
rent 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.

## 14. 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 six months.
e. Defer election of a payout option until a future date.

## 15. 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

None.


## SECTION 5：STATISTICAL INFORMATION



## 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.

## FINANCIAL TRENDS

The Changes in Plan Net Assets schedule shows the additions and deductions from plan net assets and the resulting changes in plan net assets for the ten years ending June 30, 2009.

Additions to Net Assets include city and member contributions to the System which are external sources of
additions to plan net assets. Additions also include earnings from the System's investment activity and are the Systems internal sources of and typically the larger component of additions to plan net assets.

Deductions from Net Assets are primarily comprised of benefit payments and refunds paid to participants.

## OPERATING INFORMATION

Participant data for the last ten years ending June 30, 2008 can be found on page 91 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, 2008.

## FINANCIAL TRENDS

SCHEDULE OF CHANGES IN PLAN NET ASSETS (\$000)

|  | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 | 2001 | 2000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Additions |  |  |  |  |  |  |  |  |  |  |
| Employer contributions \$ | 76,837 | 73,272 | 70,265 | 66,968 | 363,247 | 57,308 | 40,622 | 40,758 | 41,298 | 38,306 |
| Member contributions | 20,449 | 21,176 | 20,966 | 21,888 | 23,488 | 26,189 | 23,762 | 13,476 | 8,532 | 7,341 |
| Investment Income | $(440,298)$ | $(29,133)$ | 337,259 | 272,766 | 184,419 | 227,361 | 33,931 | $(108,024)$ | $(65,147)$ | 270,991 |
| Other Income | 489 | 29,839 | 29,031 | 26,950 | 17,250 | 726 | 114 | 286 | 643 | 407 |
| Total additions to plan net assets | $(342,523)$ | 95,154 | 457,521 | 388,572 | 588,404 | 311,584 | 98,429 | $(53,504)$ | $(14,674)$ | 317,045 |
| Deductions |  |  |  |  |  |  |  |  |  |  |
| Benefit payments | 180,361 | 169,483 | 157,716 | 154,311 | 175,480 | 153,202 | 98,789 | 78,318 | 58,296 | 50,142 |
| Refund of contributions | 1,795 | 1,760 | 1,398 | 1,037 | 992 | 635 | 475 | 270 | 308 | 337 |
| Professional service fees | 792 | 638 | 883 | 708 | 1,088 | 712 | 366 | 396 | 324 | 263 |
| Cost of administration | 6,420 | 5,837 | 5,223 | 5,072 | 4,718 | 4,500 | 4,299 | 3,662 | 2,367 | 2,143 |
| Total deductions from plan net assets | 189,368 | 177,718 | 165,220 | 161,128 | 182,278 | 159,049 | 103,929 | 82,646 | 61,295 | 52,885 |
| Change in net assets | $(531,891)$ | $(82,564)$ | 292,301 | 227,444 | 406,126 | 152,535 | $(-5,500)$ | $(136,150)$ | $(75,969)$ | 264,160 |
| Net Assets as of June 30 \$ | 1,730,142 | 2,262,033 | 2,344,597 | 2,052,296 | 1,824,852 | 1,418,726 | 1,266,191 | 1,271,691 | 1,407,841 | 1,483,809 |

2005 employer contributions include $\$ 300$ million pension obligation note

## OPERATING INFORMATION

## SCHEDULE OF AVERAGE BENEFIT PAYMENT AMOUNTS

FOR THE TEN YEARS ENDED JUNE 30, 2008

| Year Ended | Number <br> Receiving <br> Benefits | Benefits <br> Paid <br> $(\$ 000)$ | Average <br> Annual <br> Benefit |
| :--- | :---: | :---: | :---: |
| June 30, 1999 | 4,999 | 46,732 | 9,348 |
| June 30, 2000 | 5,104 | 50,142 | 9,824 |
| June 30, 2001 | 5,457 | 57,877 | 10,606 |
| June 30, 2002 | 5,928 | 72,256 | 12,189 |
| June 30, 2003 | 6,215 | 84,519 | 13,599 |
| June 30, 2004 | 6,878 | 107,083 | 15,569 |
| June 30, 2005 | 7,523 | 123,211 | 16,378 |
| June 30, 2006 | 7,780 | 135,688 | 17,441 |
| June 30, 2007 | 7,971 | 142,961 | 17,935 |
| June 30, 2008 | 8,155 | 150,593 | 18,466 |

SCHEDULE OF BENEFITS BY TYPE (\$000) FOR THE TEN YEARS ENDED JUNE 30, 2008

| Fiscal Year <br> Ended | Normal <br> Retirement <br> Benefits | Disability <br> Retirement <br> Benefits | Survivors' <br> Benefits | Total <br> Benefits |
| :---: | :---: | :---: | :---: | :---: |
| June 30, 1999 | 37,370 | 3,320 | 6,061 | 46,751 |
| June 30, 2000 | 39,836 | 3,490 | 6,816 | 50,142 |
| June 30, 2001 | 46,867 | 3,555 | 7,455 | 57,877 |
| June 30, 2002 | 59,746 | 3,638 | 8,872 | 72,256 |
| June 30, 2003 | 71,246 | 3,715 | 9,558 | 84,519 |
| June 30, 2004 | 92,766 | 3,832 | 10,485 | 107,083 |
| June 30, 2005 | 108,217 | 3,762 | 11,232 | 123,211 |
| June 30, 2006 | 119,287 | 3,658 | 12,743 | 135,688 |
| June 30, 2007 | 125,246 | 3,700 | 14,015 | 142,961 |
| June 30, 2008 | 131,765 | 3,648 | 15,180 | 150,593 |

## SCHEDULE OF ANNUITANTS BY TYPE

|  | June 30, 2008 |  |  |  |  | June 30, 2007 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

## HISTORICAL ACTIVE PARTICIPANT DATA

| Valuation <br> Date | Number of <br> Participants | Annual Payroll <br> $\$(000)$ | Average <br> Salary (\$) | \% Salary <br> Increase |
| :---: | :---: | :---: | :---: | :---: |
| July 1, 19991 | 13,286 | 396,617 | 29,852 | 4.0 |
| July 1, 2000 | 13,126 | 421,591 | 32,119 | 7.6 |
| July 1, 2001 | 12,928 | 413,021 | 31,948 | $(0.5)$ |
| July 1, 2002 | 12,527 | 399,794 | 31,915 | $(0.1)$ |
| July 1, 2003 | 12,120 | 390,314 | 32,204 | 0.9 |
| July 1, 2004 | 11,856 | 366,190 | 30,886 | $(4.1)$ |
| July 1, 2005 | 11,974 | $404,565^{2}$ | $33,787^{2}$ | 9.4 |
| July 1, 2006 | 12,145 | 422,496 | 34,788 | 3.0 |
| July 1, 2007 | 12,376 | 448,925 | 36,274 | 4.3 |
| July 1, 2008 | 12,653 | 483,815 | 38,237 | 5.4 |

1 1999, 2000 and 2001 does not include DROP participants
2 Beginning with 2005, 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 $\$ 31,419$

## AVERAGE MONTHLY BENEFIT AMOUNTS - FIVE YEAR AVERAGE

| Member Retiring During Fiscal Years | Years of Credited Service |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5-10 |  | 11-15 |  | 16-20 |  | 21-25 |  | 26-30 |  | $30+$ |  | All Members |  |
| 5 Years Ended 6/30/08 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Average monthly benefit | \$ | 617 | \$ | 1,041 | \$ | 1,582 | \$ | 2,274 | \$ | 3,206 | \$ | 2,819 | \$ | 1,923 |
| Average final average salary | \$ | 2,963 | \$ | 3,054 | \$ | 3,087 | \$ | 3,084 | \$ | 3,421 | \$ | 3,032 | \$ | 3,107 |
| Average DROP balance | \$ | 39,731 | \$ | 58,100 | \$ | 91,329 | \$ | 121,937 | \$ | 241,836 | \$ | 222,257 | \$ | 129,198 |
| Number of retirees |  | 80 |  | 106 |  | 118 |  | 171 |  | 73 |  | 7 |  | 555 |

- Martin Blaise, Senior Communications Specialist, Information Systems Division, Houston Department of Health \& Human Services (HDHHS).
- Sandra Jackson, Assistant Public Information Officer, and Daniel P. Hinojosa, Web Developer, Solid Waste Management Department.
- Jim Olive/Stockyard Photos, Inc.
- www.VisitHoustonTexas.com.



[^0]:    * Information pertaining to investment-related professionals is located on Page 9.

[^1]:    *The interest income for fiscal years 2009 and 2008 includes accrued interest on the $\$ 300$ million note from the City (see note 5).

[^2]:    1 Wilshire Associates Public Fund Universe.

[^3]:    2 Beginning 10-08, the Real Asset portfolio was split into Real Estate and Inflation Linked. Real Asset returns for periods prior to the split are included in the Real Estate portfolio.
    3 Beginning 10-08, the Alternative Investments portfolio was split into Private Equity and Absolute Return. Alternative Investment returns for periods prior to the split are included in the Private Equity portfolio.

[^4]:    * Obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government are not considered to have credit risk and do not have purchase limitations.

[^5]:    * A complete list of the System's holdings is available at the System's office by appointment.

[^6]:    * Gross commissions reported for brokers in directed brokerage program.

[^7]:    The agreement between the City and HMEPS included an open 30 year amortization period until the 2009 valuation. Beginning with the 2009 valuation, the amortization period
    will be a closed 30 years from July 1,2009 .

[^8]:    ${ }^{1}$ Rate determined by the actuarial valuation is for the fiscal year beginning on the July 1 st next following the valuation date.
    2 Includes $\$ 300$ million note.
    ${ }^{3}$ As pursuant to the three year funding schedule from the 2004 Meet and Confer agreement.
    ${ }^{4}$ As pursuant to the three year funding schedule from the Fourth Amendment.

[^9]:    Note: Dollar amounts in $\$ 000$

