

Houston Municipal Employees Pension System

ACTUARIAL VALUATION
July 1, 2006



January 25, 2007

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

Dear Members of the Board:

Subject: Actuarial Valuation as of July 1, 2006

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, 2006 actuarial valuation will be used by the Board when determining the employer contribution rate for the year beginning July 1, 2007 and ending June 30, 2008.

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.

Therefore, the employer contribution amounts for FY 2006 and FY 2007 were not set by actuarial valuations. The calculated contribution rates from those valuations were not contributed, but were instead \$69 million for FY 2006 and \$72 million for FY 2007 under the terms of the Meet & Confer.

The required employer contribution rate for FY2008 is 24.63% of payroll. Using an estimated payroll of \$445.2 Million for FY2008 projects an estimated employer contribution for FY2008 of \$109.6 Million.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on July 1, 2006, and reflect the changes made as a part of the "Meet and Confer" agreement. The agreement between the City and the Board changed the benefit provisions substantially, effective January 1, 2005. The changes are discussed in the Benefit Provisions subsection of the Discussion section of the July 1, 2005 report.

The benefit provisions have not changed since the prior valuation. 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.

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 amortization 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, 2006). The amortization rate is adjusted for the one-year 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, 2006 is 64.5%. This is lower than the 65.2% from the 2005 valuation. This small decrease was expected as the remaining deferred loss from FY 2002 and another portion of the deferred loss from FY 2003 were recognized in this valuation, and the actual City contributions of \$67 million was less than the estimated ARC for FY2006 of \$119 million (based on the July 1, 2004 valuation.)

The calculated employer contribution rate for FY 2008 is 24.63%. This rate is modestly higher than the 24.10% calculated in the 2005 valuation, but very close to the 24.61% rate projected on Table 7 of the 2005 report.

Data

Member data for retired, active and inactive members was supplied as of July 1, 2006 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.

The City of Houston pays its employees on a bi-weekly pay schedule and as it turns out fiscal year 2006 contained 27 pay periods. The result is that the pays received by individual members increased significantly over the prior year. The fact that there were 27 pay periods for fiscal year 2006 versus 26 pay periods for fiscal year 2005 results in a 3.85% increase in the salary received by a member even if that member did not receive a pay increase during the year. Consequently, average salary increases are more than double the expected increases. We also know that fiscal year 2007 will be a 26 pay period year. If no adjustments are made to the reported pays, then next year's pays may be very flat or even decrease when compared with this year's pays.

As approved by the Board, we adjusted the pays for employees that were employed throughout the year. The adjustment was made by multiplying these employees' pays by the ratio of 26/27, thereby negating the impact of the 27th pay period. This resulted in a better projection of next year's payroll both on an individual basis and in aggregate.

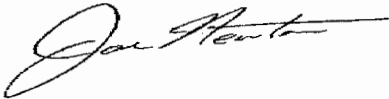
Asset information as of July 1, 2006 was taken from the Comprehensive Annual Financial Report for the Year Ended June 30, 2006.

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, 2006.

All of our work conforms with generally accepted actuarial 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. Carter and Mr. Newton are Enrolled Actuaries and are also Members of the American Academy of Actuaries. All three of the undersigned are experienced in performing valuations for large public retirement systems.

Sincerely,
Gabriel, Roeder, Smith & Company



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Executive Summary

Item	July 1, 2006	July 1, 2005
Membership <ul style="list-style-type: none"> • Number of: <ul style="list-style-type: none"> - Active members - Retirees and beneficiaries - Inactive members - Total • Annualized Payroll supplied by HMEPS 	12,145 7,780 4,635 24,560 \$ 422,496	11,974 7,523 3,893 23,390 \$404,565
Calculated Contribution rates <ul style="list-style-type: none"> • Member (weighted)¹ • Employer 	4.18% 24.63%	3.98% 24.10%
Assets <ul style="list-style-type: none"> • Market value • Actuarial value • Estimation of return on market value • Estimation of return on actuarial value • Employer contribution² • Ratio of actuarial value to market value 	\$ 2,052,296 1,867,293 16.4% 9.0% \$ 66,968 91.0%	\$1,824,852 1,777,656 12.9% 4.1% \$363,247 97.4%
Actuarial Information <ul style="list-style-type: none"> • Employer normal cost % • Unamortized actuarial accrued liability (UAAL) • Amortization rate • Funding period • GASB funded ratio 	8.45% \$ 1,027,002 16.18% 30.0 years 64.5%	8.47% \$947,616 15.63% 30.0 years 65.2%
Projected employer contribution based on calculated rate <ul style="list-style-type: none"> • Fiscal year ending June 30, • Projected payroll (millions) • Projected employer contribution (millions) (actual contribution rate set by Meet & Confer) 	2008 \$ 445.2 \$ 109.6	2007 \$ 432.1 \$ 104.2

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

¹ Employee contribution rate for contributing members is 4% prior to January 1, 2005 and 5% thereafter.

² July 1, 2005 contribution information includes a \$300 million pension obligation note from the City.

Contribution Requirements

- The Executive Summary shows the new, calculated contribution rate
- Rates shown on the Executive Summary are calculated rates for the twelve-month period beginning July 1, 2007, based on current board policy
- Table 6 reconciles the calculated contribution rate from the prior valuation to the current valuation
- There were no changes to the benefit provisions
- There were no changes to the actuarial assumptions
- Amortization payment is based on
 - 30-year open funding period beginning July 1, 2006
 - Contributions increase as level percentage of pay
 - Total payroll increases 3.00% per year
 - No future growth in the number of active members is taken into account
- The Plan's funded ratio decreased from the prior year and the Plan's contribution rate increased from the prior year primarily due to the City contributing less than the actuarially determined rate (as pursuant to the three year funding schedule from the Meet and Confer agreement).
 - Also affecting the funded ratio was larger than expected salary increases and data corrections
 - Analysis of the change in contribution rates is shown on Table 6
- The Plan experienced a small gain on the actuarial value of assets
 - The gain is small due to the offsetting recognition of investment losses from fiscal years 2002 and 2003
 - Because the actuarial asset method smoothes gains and losses over five years, only 60%, 40% and 20%, respectively, of the FY2004, FY2005, and FY2006 investment gains are reflected in these results
 - The remainder of the deferred investment losses for FY2003 will be recognized next year
 - However, the actuarial value of assets is now less than the market value of assets, creating a deferred net asset gain. This will decrease the required contribution rate over the next several valuations if no offsetting asset losses occur during the next few years. (This is reflected in Table 7)

Calculation of Contribution Rates

The HMEPS retirement system is funded by employer contributions which are determined as a percent of pay, and in some cases by member contributions. As shown in Table 2, the employer contribution rate has two components:

- The normal cost percentage (NC%)
- The amortization percentage (UAAL%)

The NC% is the theoretical amount which would be required to pay the members' benefits, based on the current plan provisions, if this amount had been contributed from each member's entry date and if the fund's experience exactly followed the actuarial assumptions. This is the amount it should cost to provide the benefits for an average new member. The NC% is shown in Table 4.

Some of the members are required to make employee contributions, and for those members, only the excess of the NC% over the member contribution rate is included in the employer contribution rate.

The actuarial accrued liability (AAL) is the difference between (i) the actuarial present value of all future benefits for all current participants of the fund, including active, inactive and retired members, and (ii) the actuarial present value of future normal costs. Thus the AAL represents the liability associated with past years. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and the actuarial value of assets (AVA). It is the shortfall/excess between the liability associated with prior years (the AAL) and the assets actually accumulated (the AVA). This shortfall/excess can arise from several sources, including actuarial gains and losses which are caused by differences between actual experience and the plan's assumptions, changes to the plan's actuarial assumptions, and amendments to the benefit provisions.

The UAAL% is the amount required to fund this difference. It is the amount, expressed as a level percentage of payroll, necessary to amortize the UAAL. The Board has specified that this amortization should be over a period of 30 years beginning July 1, 2006. Item 11a of Table 2 shows the UAAL%.

The calculated rate is used in determining the contribution rate necessary to meet the Board's funding policy for the twelve-month period beginning July 1, 2007.

Financial Data and Experience

As of July 1, 2006, HMEPS has a total market value of about \$2.05 billion. Financial information was gathered from the 2006 HMEPS Comprehensive Annual Financial Report.

This report includes a number of exhibits related to plan assets. Table 8 shows how the total market value is distributed among the various classes of investments. Currently, 48.6% of invested assets are held in equities, compared with 54.0% last year and compared with a 50% investment policy target. 31.0% of invested assets are held in limited partnerships, real estate trusts, loans and mortgages, compared with 29.1% last year and compared with a 30% investment policy target.

Table 9 shows a reconciliation of the market values between the beginning and end of FY2006.

During FY2006, the dollar-weighted total investment return on market values was 16.41%, as shown on Table 12.

The Comprehensive Annual Financial Report states the time-weighted return for FY2006 was 18.1%. This return excludes the assets and earnings accrued on the note receivable by the City of Houston. The dollar-weighted return shown above includes all of the assets of the System.

In determining the contribution rates and funded status of the System, an actuarial value of assets (AVA) is used, rather than the market value of assets. The method used to compute the AVA takes the difference between actual earnings and expected earnings (based on the assumed 8.5% investment return rate) each year, and recognizes the difference over five years, at 20% per year. This “smoothing method” is intended to help reduce the volatility of the contribution rates from year to year.

The development of the AVA is shown on Table 10 and Table 11. The AVA is \$1.87 billion. The AVA is 91.0% of the MVA, compared to 97.4% last year.

In addition to the market return, Table 12 also shows the return on the actuarial value of assets for HMEPS. For FY2006, this return was 8.95%. Because this is greater than the assumed 8.5% investment return, an actuarial gain occurred decreasing the unfunded actuarial accrued liabilities of the plan. Table 14 shows a summary of market and actuarial return rates in recent years.

Member Data

Member data as of July 1, 2006 was supplied electronically by HMEPS staff. While we did not audit this data, we did perform various tests to ensure that it was internally consistent, consistent with the prior year's data, and was reasonable overall.

Table 20 shows the number of members by category (active, inactive, retired, etc.). Tables 21(a-c) show active member statistics by Group. Tables 18 and 19 show summaries of certain historical data, including membership statistics.

The number of active members increased from 11,974 to 12,145, a 1.4% increase. This is the second year in a row that active membership has increased. Over the last five years active membership has decreased on average 1.2% per year.

The total payroll shown on the statistical tables is the amount that was supplied by HMEPS, annualized if necessary. For the cost calculations, the pays were adjusted in accordance with the actuarial assumptions to reflect one year's salary increase.

The City of Houston pays its employees on a bi-weekly pay schedule and as it turns out fiscal year 2006 contained 27 pay periods. The result is that the pays for individual members increased significantly over the prior year. The fact that there were 27 pay periods for fiscal year 2006 versus 26 pay periods for fiscal year 2005 results in a 3.85% increase in salary for a member even if that member did not receive a pay increase during the year. Consequently, average salary increases are more than double the expected increases. We also know that fiscal year 2007 will be a 26 pay period year. If no adjustments are made to the reported pays then next year's pays may be very flat or even decrease when compared with this year's pays.

As approved by the Board, we adjusted the pays for employees that were employed throughout the year. The adjustment was made by multiplying these employees' pays by the ratio of 26/27, thereby negating the impact of the 27th pay period. This resulted in a better projection of next year's payroll both on an individual basis and in aggregate.

Total active member payroll increased 4.4% last year, compared with a 10.5% increase the prior year and a 6.5% decrease the year before that. The 10.5% increase includes a change in the way the payroll for new entrants was determined beginning with the July 1, 2005 valuation. The actual increase in covered payroll for FY2005 was 2.75%. Like the number of active members, this is the second valuation in a row that the total covered payroll increased.

This uptrend in payroll is significant because the methodology used in the valuation to amortize the unfunded liability assumes a growing payroll into the future. If the payroll does not grow at the assumed 3% a year on average, then the amortization payments will be understated and the funding position of the plan will not strengthen over time.

Benefit Provisions

Appendix B includes a summary of the benefit provisions for HMEPS. There were no changes to the benefits since the prior valuation.

This valuation reflects all benefits offered to HMEPS members. There are no ancillary benefits that might be deemed a HMEPS liability if continued beyond the availability of funding by the current funding source.

Actuarial Methods and Assumptions

Appendix A includes a summary of the actuarial assumptions and methods used in this valuation. Costs are determined using the Entry Age Normal actuarial cost method. The assumed investment return rate is 8.50%. The Board adopted the actuarial assumptions used in this valuation in connection with the 2004 experience investigation performed by GRS and independently reviewed by Mercer Consulting. These assumptions have been in effect since the July 1, 2005 valuation.

Please see Appendix A for a complete description of these assumptions.

GASB 25 and Funding Progress

Governmental Accounting Standards Board Statement No. 25 (GASB 25) contains certain accounting requirements for HMEPS. In particular, it requires the inclusion of two special schedules in the HMEPS annual report:

1. Schedule of Funding Progress
2. Schedule of Employer Contributions

Information needed to prepare the Schedule of Funding Progress is included in Table 16. This shows that the funded ratio (ratio of actuarial assets to accrued liabilities) decreased dramatically over the three-year period ending with the 2003 valuation, and has subsequently generally increased over the last three valuations.

GASB 25 also requires that plans calculate an Annual Required Contribution (ARC), and, if actual contributions received are less than the ARC, this must be disclosed. For this disclosure, HMEPS treats the Board-established employer contribution rate as the ARC, as long as this produces a funding period of 30 years or less.

Under GASB 25, the ARC must be calculated in accordance with certain parameters. In particular, it must include a payment to amortize the UAAL. This amortization payment eventually will have to be computed using a funding period no greater than 30 years, but a 40-year maximum amortization period may be used during a ten-year transition period. Further, the amortization payment included in the ARC may be computed as a level dollar amount, or it may be computed as an amount which increases with payroll (level-percentage-of-pay). However, if payments are computed on a level-percentage-of-payroll approach, the payroll growth assumption may not anticipate future membership growth.

Since the recommended employer contribution rate is computed as a level-percentage-of-payroll using an amortization period of 30 years from the valuation date, the recommended rate meets the definition of an acceptable ARC.

Summary of Cost Items

	Valuation as of July 1, 2006		Valuation as of July 1, 2005	
	Cost Item (1)	Cost as % of Pay (2)	Cost Item (3)	Cost as % of Pay (4)
1. Participants				
a. Actives	12,145		11,974	
b. Retirees	5,847		5,592	
c. Disabled retirees	452		483	
d. Beneficiaries	1,481		1,448	
e. Inactive, deferred vested	2,786		2,659	
f. Inactive, nonvested	1,849		1,234	
g. Total	24,560		23,390	
2. Covered payroll	\$ 422,496		\$ 404,565	
3. Averages for active members				
a. Average age	44.8		44.8	
b. Average years of service	9.3		9.6	
c. Average pay (\$)	\$ 34,788		\$ 33,787	
4. Present value of future pay	\$ 2,775,370		\$ 2,675,293	
5. Total normal cost rate	12.63%		12.45%	
6. Present value of future benefits	\$ 3,247,605	768.7%	\$ 3,061,556	756.8%
7. Present value of future normal costs	\$ 341,222	80.8%	\$ 323,625	80.0%
8. Service purchase receivable	\$ (12,088)		\$ (12,659)	
9. Actuarial accrued liability (6 - 7 + 8)	\$ 2,894,295	685.0%	\$ 2,725,272	673.6%
10. Present actuarial assets	\$ 1,867,293	442.0%	\$ 1,777,656	439.4%
11. Unfunded actuarial accrued liability (UAAL)	\$ 1,027,002	243.1%	\$ 947,616	234.2%
12. Employee contribution rate (weighted) ¹	4.18%		3.98%	
13. Funding period	30 years		30 years	
14. Employer contribution rate				
a. Net Normal cost (5-12)	8.45%		8.47%	
b. Amortization charge	16.18%		15.63%	
c. Total	24.63%		24.10%	
15. Average estimated return				
a. Based on market value	16.41%		12.85%	
b. Based on actuarial value	8.95%		4.12%	
16. GASB 25 funded ratio	64.5%		65.2%	

Note: Dollar amounts in \$000

¹ Employee contribution rate for contributing members is 4% prior to January 1, 2005 and 5% thereafter

Calculation of Annual Required Contribution Rate

	July 1, 2006 (1)	July 1, 2005 (2)
1. Covered payroll	\$ 422,496	\$ 404,565
2. Covered payroll adjusted for one-year's pay increase	\$ 438,321	\$ 419,542
3. Present value of future pay	\$ 2,775,370	\$ 2,675,293
4. Normal cost rate		
a. Total normal cost rate	12.63%	12.45%
b. Less: member contribution rate (weighted)	(4.18%)	(3.98%)
c. Employer normal cost rate	8.45%	8.47%
5. Actuarial accrued liability for active members		
a. Present value of future benefits for active members	\$ 1,517,742	\$ 1,484,211
b. Less: present value of future normal costs	(341,222)	(323,625)
c. Service Purchase Receivable ¹	(12,088)	(12,659)
d. Actuarial accrued liability	\$ 1,164,432	\$ 1,147,927
6. Total actuarial accrued liability for:		
a. Retirees and beneficiaries	\$ 1,618,762	\$ 1,483,664
b. Inactive participants	111,101	93,681
c. Active members (Item 5d)	1,164,432	1,147,927
d. Total	\$ 2,894,295	\$ 2,725,272
7. Actuarial value of assets	\$ 1,867,293	\$ 1,777,656
8. Unfunded actuarial accrued liability (UAAL) (Item 6d - Item 7)	\$ 1,027,002	\$ 947,616
9. Funding period	30 years	30 years
10. Assumed payroll growth rate	3.00%	3.00%
11. Employer Contribution requirement		
a. UAAL amortization payment as % of pay	16.18%	15.63%
b. Employer normal cost	8.45%	8.47%
c. Contribution requirement (a + b)	24.63%	24.10%

Note: Dollar amounts in \$000

¹ Includes actual current receivable for actives who have entered into an obligation.

Actuarial Present Value of Future Benefits

	July 1, 2006 (1)	July 1, 2005 (2)
1. Active members		
a. Retirement benefits	\$ 1,344,181	\$ 1,318,713
b. Deferred termination benefits	85,528	84,669
c. Refunds	12,072	8,043
d. Death benefits	49,333	47,452
e. Disability benefits	26,628	25,334
f. Total	<u>\$ 1,517,742</u>	<u>\$ 1,484,211</u>
2. Members in Pay Status		
a. Service retirements	\$ 1,467,830	\$ 1,343,473
b. Disability retirements	38,501	39,908
c. Beneficiaries	112,431	100,283
d. Total	<u>\$ 1,618,762</u>	<u>\$ 1,483,664</u>
4. Inactive members		
a. Vested terminations	\$ 109,071	\$ 92,498
b. Nonvested terminations	2,030	1,183
c. Total	<u>\$ 111,101</u>	<u>\$ 93,681</u>
5. Total actuarial present value of future benefits	<u>\$ 3,247,605</u>	<u>\$ 3,061,556</u>

Note: Dollar amounts in \$000

Analysis of Normal Cost

	<u>July 1, 2006</u>	<u>July 1, 2005</u>
	(1)	(2)
1. Gross normal cost rate		
a. Retirement benefits	9.12%	9.06%
b. Deferred termination benefits	1.42%	1.56%
c. Refunds	0.93%	0.68%
d. Disability benefits	0.53%	0.53%
e. Death benefits	0.63%	0.62%
f. Total	<u>12.63%</u>	<u>12.45%</u>
2. Less: member contribution rate		
a. Present Value of Employee Contributions	\$ 116,146	\$ 106,452
b. Present value of future pay	\$ 2,775,370	\$ 2,675,293
c. Effective member contribution rate (2a/2b)	(4.18%)	(3.98%)
3. Employer normal cost rate (Item 1f - Item 2c)	8.45%	8.47%

Note: Dollar amounts in \$000

Calculation of Total Actuarial Gain or Loss

1. Unfunded actuarial accrued liability (UAAL) as of July 1, 2005	\$ 947,616
2. Total normal cost for year	53,809
3. Contributions during year ending June 30, 2006	(88,856)
4. Interest on UAAL for one year	80,547
5. Interest on Item 2 and Item 3 for one-half year	<u>(1,459)</u>
6. Expected UAAL as of July 1, 2006 (1+2+3+4+5)	\$ 991,657
7. Actual UAAL as of July 1, 2006	\$ 1,027,002
8. Actuarial gain/(loss) for the period (6 - 7)	\$ (35,345)
 <u>SOURCE OF GAINS/(LOSSES)</u>	
9. Asset gain/(loss) (See Table 13)	\$ 7,797
10. Assumption changes	0
11. Total liability gain/(loss) for the period	<u>\$ (43,142)</u>
12. Actuarial gain/(loss) for the period	\$ (35,345)

Note: Dollar amounts in \$000

Change in Calculated Contribution Rate Since the Prior Valuation

1.	Calculated Contribution Rate as of July 1, 2005		24.10%
2.	Change in Contribution Rate During Year		
	a. Change in Employer Normal Cost	(0.02%)	
	b. Assumption changes	0.00%	
	c. Recognition of prior asset losses (gains)	0.32%	
	d. Actuarial (gain) loss from current year asset performance	(0.44%)	
	e. Actuarial (gain) loss from liability sources	0.62%	
	f. Impact of City contributing less than actual cost of plan	0.53%	
	g. Effect of Payroll growing faster than Payroll Growth Rate	(0.23%)	
	h. Effect of resetting amortization period to 30 years	(0.25%)	
	i. Total Change		<u>0.53%</u>
3.	Calculated Rate as of July 1, 2006		24.63%

Houston Municipal Employees Pension System
Actuarial Valuation – July 1, 2006

Table 7

Near Term Outlook

Valuation as of July 1, (1)	Unfunded Actuarial Accrued Liability (UAAL, in 000s) (2)	Funded Ratio (3)	Calculated Contribution Rate (4)	Funding Period (Years) ² (5)	Funded Ratio Using MVA (6)	For Fiscal Year Ending June 30, (7)	Covered Compensation (8)	Employer Contributions (8)	Employee Contributions (9)	Benefit Payments and Refunds (10)	Net External Cash Flow (11)
2006	\$ 1,027,002	64.5%	24.63%	30.0	70.9%	2007	\$ 438,321	\$ 72,000 ¹	\$ 18,343	\$ 172,383	\$ (82,040)
2007	1,009,818	66.5%	23.53%	30.0	71.0%	2008	445,179	109,634	19,019	192,310	(63,657)
2008	941,901	69.9%	22.29%	30.0	72.1%	2009	452,037	106,346	19,630	203,734	(77,759)
2009	902,436	72.2%	21.33%	30.0	73.0%	2010	465,926	103,878	20,537	213,674	(89,259)
2010	880,210	73.8%	20.84%	29.0	73.8%	2011	480,226	102,452	21,470	224,928	(101,007)
2011	889,441	74.4%	20.82%	28.0	74.4%	2012	494,558	103,067	22,409	236,820	(111,344)
2012	900,028	74.9%	20.80%	27.0	74.9%	2013	509,563	106,094	23,378	249,040	(119,567)
2013	909,617	75.4%	20.79%	26.0	75.4%	2014	524,850	109,167	24,358	261,606	(128,081)
2014	918,123	75.9%	20.77%	25.0	75.9%	2015	540,761	112,400	25,363	274,409	(136,646)
2015	925,377	76.4%	20.75%	24.0	76.4%	2016	557,290	115,752	26,389	287,730	(145,589)
2016	931,206	76.9%	20.74%	23.0	76.9%	2017	574,212	119,176	27,423	291,391	(144,792)

These projections are based on the benefit provisions in effect for the July 1, 2006 actuarial valuation with no expected changes to future accruals. Also, beginning in FY2007, the calculated rates shown above are assumed to be paid beginning the year after the 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 included 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 FY2007.

² 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.

Note: Dollar amounts in \$000. MVA represents Market Value of Assets.

Statement of Plan Net Assets

	July 1, 2006 <u>(1)</u>	July 1, 2005 <u>(2)</u>
A. ASSETS		
1. Current Assets		
a. Cash and short term investments		
1) Cash on hand	\$ 2,718	\$ 875
2) Short term investments	66,298	97,408
b. Accounts Receivable		
1) Sale of investments	8,327	54,781
2) Other	9,584	14,798
c. Total Current Assets	<u>\$ 86,927</u>	<u>\$ 167,862</u>
2. Long Term Investments		
a. US. Government securities	\$ 57,379	\$ 62,840
b. Corporate bonds	75,568	73,687
c. Capital stocks	509,384	458,702
d. Commingled Funds	548,133	420,920
e. LP's, real estate trusts, loans and mortgages	484,671	372,738
f. Total long term investments	<u>\$ 1,675,135</u>	<u>\$ 1,388,887</u>
3. Other Assets		
a. Collateral on securities lending	\$ 93,012	\$ 95,636
b. Furniture, fixtures and equipment, net	702	828
c. Note receivable - City of Houston	300,000	300,000
d. Accrued interest on note receivable	36,183	16,363
e. Total other assets	<u>\$ 429,897</u>	<u>\$ 412,827</u>
4. Total Assets	<u>\$ 2,191,959</u>	<u>\$ 1,969,576</u>
B. LIABILITIES		
1. Current Liabilities		
a. Amounts due on asset purchases	\$ 43,249	\$ 45,452
b. Accrued liabilities	3,402	3,636
c. Collateral on securities lending	93,012	95,636
2. Total Liabilities	<u>139,663</u>	<u>144,724</u>
3. Net Assets Held in Trust	<u>\$ 2,052,296</u>	<u>\$ 1,824,852</u>
C. ASSET ALLOCATION FOR CASH & LONG TERM INVESTMENTS		
1. Cash	1.5%	0.9%
2. Fixed Income	18.4%	16.0%
3. Real Assets	16.3%	14.7%
4. Domestic Equities	27.9%	32.6%
5. International Equities	20.7%	21.4%
6. Alternative Investments	<u>15.2%</u>	<u>14.4%</u>
7. Total	100.0%	100.0%

Note: Dollar amounts in \$000

Reconciliation of Plan Net Assets

	Year Ending	
	June 30, 2006 (1)	June 30, 2005 (2)
1. Market value of assets at beginning of year	\$ 1,824,852	\$ 1,418,725
2. Revenue for the year		
a. Contributions		
i. Member contributions	\$ 21,888	\$ 23,488
ii. Employer contributions	66,968	363,247
iii. Total	\$ 88,856	\$ 386,735
b. Net investment income		
i. Interest	\$ 8,632	\$ 11,101
ii. Dividends	9,128	9,891
iii. Earnings from LP's and real estate trusts	25,592	45,070
iv. Net appreciation (depreciation) on investments	235,078	124,002
v. Interest income - City of Houston note receivable	26,565	16,363
vi. Net proceeds from lending securities	419	352
vii. Less investment expenses	(6,083)	(5,996)
viii. Other	385	888
c. Total revenue	\$ 388,572	\$ 588,405
3. Expenditures for the year		
a. Refunds	\$ 1,037	\$ 992
b. Benefit payments	154,311	175,480
c. Administrative and miscellaneous expenses	5,780	5,806
d. Total expenditures	\$ 161,128	\$ 182,278
4. Increase in net assets (Item 2c - Item 3d)	\$ 227,444	\$ 406,127
5. Market value of assets at end of year (Item 1 + Item 4)	\$ 2,052,296	\$ 1,824,852

Note: Dollar amounts in \$000

Calculation of Excess Investment Income

Item	Year Ending June 30,					
	2006	2005	2004	2003	2002	
(1)	(2)	(3)	(4)	(5)	(6)	
1. Market value of assets at beginning of year	\$ 1,824,852	\$ 1,418,725	\$ 1,266,190	\$ 1,271,691	\$ 1,407,516	
2. Net external cash flow during the year	(66,492)	210,263	(70,340)	(34,880)	(24,354)	
3. Market value of assets at end of year	2,052,296	1,824,852	1,418,725	1,266,190	1,271,691	
4. Actual investment income during the year based on market value: (3) - (2) - (1)	\$ 293,936	\$ 195,864	\$ 222,875	\$ 29,379	\$ (111,471)	
5. Assumed earnings rate	8.50%	8.50%	8.50%	8.50%	8.50%	
6. Expected earnings for the year on:						
a. Market value of assets at beginning of year	155,112	120,592	107,626	108,094	119,639	
b. Net external cash flow	(2,768)	8,754	(2,928)	(1,452)	(1,014)	
c. Total: (a) + (b)	152,344	129,346	104,698	106,642	118,625	
7. Excess investment income for the year: (4) - (6)	\$ 141,592	\$ 66,518	\$ 118,177	\$ (77,263)	\$ (230,096)	

Note: Dollar amounts in \$000

Development of Actuarial Value of Assets

	<u>July 1, 2006</u>	<u>July 1, 2005</u>
	(1)	(2)
1. Excess (Shortfall) of invested income for current and previous three years		
a. Current year	\$ 141,592	\$ 66,518
b. Current year - 1	66,518	118,177
c. Current year - 2	118,177	(77,263)
d. Current year - 3	(77,263)	(230,096)
e. Current year - 4	<u>(230,096)</u>	<u>(193,278)</u>
f. Total for five years	\$ 18,928	\$ (315,942)
2. Deferral of excess (shortfall) of invested income		
a. Current year (80%)	113,274	53,214
b. Current year - 1 (60%)	39,911	70,906
c. Current year - 2 (40%)	47,271	(30,905)
d. Current year - 3 (20%)	(15,453)	(46,019)
e. Current year - 4 (0%)	<u>0</u>	<u>0</u>
f. Total deferred for year	\$ 185,003	\$ 47,196
3. Market value of assets at end of year	\$ 2,052,296	\$ 1,824,852
4. Actuarial value of assets at end of year: (3) - (2f)	\$ 1,867,293	\$ 1,777,656

Estimation of Dollar-Weighted Investment Return

Item (1)	Market Value (2)	Actuarial Value (3)
1. Assets as of July 1, 2005 (A)	\$ 1,824,852	\$ 1,777,656
2. Contributions during FY06	88,856	88,856
3. Benefit payments made during FY06	154,311	154,311
4. Refunds of contributions during FY06	1,037	1,037
5. Expenses during FY06	5,780	5,780
6. Investment return during FY06	299,716	161,909
7. Assets as of July 1, 2006 (B): (1 + 2 - 3 - 4 - 5 + 6)	2,052,296	1,867,293
8. Approximate rate of return on average invested assets		
a. Net investment income (6 - 5 = I)	293,936	156,129
b. Estimated return based on (2I/(A + B - I))	16.41%	8.95%

Note: Dollar amounts in \$000

Investment Experience Gain or Loss

Item (1)	Valuation as of 6/30/2006 (2)	Valuation as of 6/30/2005 (3)
1. Actuarial assets, prior valuation	\$ 1,777,656	\$ 1,501,235
2. Total contributions since prior valuation	\$ 88,856	\$ 386,735
3. Benefits and refunds since prior valuation	\$ (155,348)	\$ (176,472)
4. Assumed net investment income at 8.5%		
a. Beginning assets	\$ 151,101	\$ 127,605
b. Contributions	3,699	16,101
c. Benefits and refunds paid	(6,468)	(7,347)
d. Total	<u>\$ 148,332</u>	<u>\$ 136,359</u>
5. Expected actuarial assets (Sum of Items 1 through 4)	\$ 1,859,496	\$ 1,847,857
6. Actual actuarial assets, this valuation	\$ 1,867,293	\$ 1,777,656
7. Asset gain (loss) since prior valuation (Item 6 - Item 5)	\$ 7,797	\$ 70,201

Note: Dollar amounts in \$000

History of Investment Returns

<u>For Fiscal Year Ending</u> (1)	<u>Market Value ¹</u> (2)	<u>Actuarial Value</u> (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%

¹ Dollar-weighted return.

Houston Municipal Employees Pension System
Actuarial Valuation - July 1, 2006

Table 15

Historical Solvency Test

Valuation Date (1)	Aggregated Accrued Liabilities for				Actuarial Value of Assets (5)	by Reported Assets		
	Active Members Contributions (2)	Retirees		Members (City Financed Portion) (4)		(5)/(2) (6)	[(5)-(2)]/(3) (7)	[(5)-(2)-(3)]/ (4) (8)
		Beneficiaries and Vested Terminations ¹ (3)	Beneficiaries and Vested Terminations ¹ (3)					
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%	

Note: Dollar amounts in \$000

¹ Column (3) included AAL for DROP participants until 2003, now in Column (4)

Houston Municipal Employees Pension System
Actuarial Valuation - July 1, 2006

Table 16

Schedule of Funding Progress

Date (1)	Actuarial Value of Assets (AVA) (2)	Actuarial Accrued Liability (AAL) (3)	Unfunded Actuarial		Funded Ratio (2)/(3) (5)	Annual Payroll (6)	UAAL as % of Payroll (4)/(6) (7)
			Accrued Liability (UAAL) (3) - (2) (4)	Accrued Liability (2)/(3) (5)			
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%

Note: Dollar amounts in \$000

Historical City Contribution Rates

Valuation Date (1)	Calculated Contribution Rate ¹ (2)	Time Period for Contribution Rate (3)	Actual Contribution Rate (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	92.55 ^{2,3}
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	N/A ³
July 1, 2006	24.63	July 1, 2007 through June 30, 2008	N/A

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

² Includes \$300 million note.

³ As pursuant to the three year funding schedule from the Meet and Confer agreement.

Historical Active Participant Data

Valuation Date	Active Count	Average Age	Average Svc	Covered Payroll	Average Salary	Percent Changes
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1988	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%
1999 ¹	13,286	42.9	9.8	\$396,617	\$29,852	4.0%
2000 ¹	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%

Note: Dollar amounts in \$000

¹ Excludes DROP participants

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

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
	(1) Number	(2) Annual Allowances	(3) Number	(4) Annual Allowances	(5) Number	(6) Annual Allowances		
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

Note: Dollar amounts in \$000

Membership Data

	July 1, 2006 (1)	July 1, 2005 (2)	July 1, 2004 (3)
1. Active members			
a. Number	12,145	11,974	11,856
b. Number vested	7,524	7,705	8,208
c. Total payroll supplied by HMEPS ¹	\$ 422,496,000	\$404,565,000	\$366,189,957
d. Average salary ¹	34,788	33,787	30,886
e. Average age	44.8	44.8	45.1
f. Average service	9.3	9.6	10.3
2. Inactive participants (counts)			
a. Vested	2,786	2,659	2,434
b. NonVested	1,849	1,234	1,043
3. Service retirees			
a. Number	5,847	5,592	4,952
b. Total annual benefits	\$ 119,286,669	\$ 108,217,394 ²	\$ 92,766,274
c. Average annual benefit	20,401	19,352	18,733
d. Average age	65.9	65.9	66.6
4. Disabled retirees			
a. Number	452	483	495
b. Total annual benefits	\$ 3,658,166	\$ 37,617,85 ²	\$ 3,832,094
c. Average annual benefit	8,093	7,788	7,742
d. Average age	61.3	60.8	60.3
5. Beneficiaries and spouses			
a. Number	1,481	1,448	1,431
b. Total annual benefits	\$ 12,742,777	\$ 112,324,252 ²	\$ 10,485,436
c. Average annual benefit	8,604	7,757	7,327
d. Average age	68.4	68.3	68.6

¹ Beginning with the 2005 valuation, a change in methodology now annualizes payroll for new entrants. If the methodology had not been changed, the covered payroll for 2005 would have been \$376,208,345 and the average payroll would have been \$31,419.

² These amounts did not include the February 2005 cost of living increase.

Houston Municipal Employees Pension System
Actuarial Valuation - July 1, 2006

Distribution of Group A Active Members by Age and by Years of Service

Attained Age	0		1		2		3		4		5-9		10-14		15-19		20-24		25-29		30-34		35 & Over		Total	
	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.
Under 25	210	\$23,943	116	\$22,124	26	\$21,847	21	\$23,907	15	\$24,665	3	\$24,245													391	\$23,292
25-29	305	\$26,934	212	\$26,930	103	\$26,617	57	\$28,263	50	\$26,413	81	\$26,830	1	\$45,588											809	\$26,966
30-34	219	\$29,689	188	\$28,746	101	\$30,551	62	\$33,350	71	\$32,295	173	\$29,770	39	\$33,659	2	\$45,310									855	\$30,300
35-39	206	\$31,435	197	\$31,905	101	\$29,796	64	\$30,712	70	\$34,588	217	\$33,988	133	\$37,031	53	\$33,450	2	\$34,060							1,043	\$32,884
40-44	191	\$31,593	177	\$32,295	111	\$32,800	70	\$32,899	64	\$37,398	302	\$33,521	194	\$38,151	173	\$37,400	90	\$36,681	6	\$34,924					1,378	\$34,538
45-49	160	\$33,621	155	\$33,589	103	\$36,682	89	\$35,583	70	\$31,956	287	\$33,938	251	\$39,830	227	\$40,559	218	\$40,927	110	\$39,185					1,670	\$37,093
50-54	120	\$34,650	160	\$35,498	89	\$34,400	64	\$39,169	47	\$40,830	265	\$37,115	247	\$40,351	219	\$44,691	159	\$44,947	105	\$44,764	17	\$48,016			1,492	\$40,059
55-59	80	\$37,934	96	\$36,791	68	\$36,539	52	\$35,269	25	\$34,738	213	\$36,591	221	\$42,375	139	\$45,188	133	\$44,905	54	\$43,923	25	\$56,966	5	\$62,437	1,111	\$40,620
60-64	40	\$44,676	45	\$40,475	32	\$37,316	31	\$37,012	27	\$37,351	129	\$38,491	128	\$41,068	72	\$45,270	47	\$47,323	24	\$50,235	15	\$51,383	4	\$80,356	594	\$42,023
65 & Over	8	\$32,571	11	\$26,289	8	\$38,044	10	\$47,034	9	\$30,881	48	\$41,092	49	\$41,242	18	\$47,826	14	\$46,343	4	\$45,621	2	\$35,058	2	\$52,292	186	\$40,964
Total	1,554	\$30,419	1,357	\$31,105	742	\$32,228	520	\$33,797	448	\$33,725	1,718	\$34,460	1,263	\$39,819	903	\$41,782	663	\$42,660	303	\$42,839	59	\$52,225	14	\$63,933	9,544	\$35,472

Average: Age: 44.35 Service: 8.07

Number of participants: Fully vested: 4,923 Not Vested: 4,621

Males: 5,386 Females: 4,158

Houston Municipal Employees Pension System
Actuarial Valuation - July 1, 2006

Distribution of Group B Active Members by Age and by Years of Service

Attained Age	0		1		2		3		4		5-9		10-14		15-19		20-24		25-29		30-34		35 & Over		Total		
	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	
Under 25																											
25-29					36		3																		39		
					\$28,653		\$29,149																		\$28,691		
30-34					105		54																		159		
					\$27,292		\$28,678																		\$27,763		
35-39					146		184																		399		
					\$28,727		\$30,914																		\$29,908		
40-44					112		172																		503		
					\$30,391		\$32,272																		\$31,714		
45-49					112		185																		546		
					\$32,002		\$33,260																		\$32,835		
50-54					88		155																		446		
					\$31,934		\$31,778																		\$33,436		
55-59					58		109																		301		
					\$33,585		\$32,588																		\$34,466		
60-64					27		58																		151		
					\$30,622		\$35,617																		\$35,111		
65 & Over					5		26																		57		
					\$31,574		\$32,766																		\$35,438		
Total					689		946																		2,601		
					\$30,221		\$32,160																		\$32,278		
Average:					Age:	46.63	Number of participants:		Fully vested:		2,601	Males:		1,302	Not Vested:		0	Females:		1,299							
					Service:	13.86																					

Distribution of All Active Members by Age and by Years of Service All Employees

Attained Age	0		1		2		3		4		5-9		10-14		15-19		20-24		25-29		30-34		35 & Over		Total		
	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	No. & Avg. Comp.	
Under 25	210	\$23,943	116	\$22,124	26	\$21,847	21	\$23,907	15	\$24,665	3	\$24,245														391	\$23,292
25-29	305	\$26,934	212	\$26,930	103	\$26,617	57	\$28,263	50	\$26,413	117	\$27,391	4	\$33,259												848	\$27,046
30-34	219	\$29,689	188	\$28,746	101	\$30,551	62	\$33,350	71	\$32,295	278	\$28,834	93	\$30,767	2	\$45,310										1,014	\$29,902
35-39	206	\$31,435	197	\$31,905	101	\$29,796	64	\$30,712	70	\$34,588	363	\$31,872	317	\$33,480	122	\$31,344	2	\$34,060								1,442	\$32,061
40-44	191	\$31,593	177	\$32,295	111	\$32,800	70	\$32,899	64	\$37,398	414	\$32,674	366	\$35,388	324	\$34,927	157	\$34,461	7	\$35,927						1,881	\$33,783
45-49	160	\$33,621	155	\$33,589	103	\$36,682	89	\$35,583	70	\$31,956	399	\$33,395	436	\$37,042	357	\$38,125	134	\$38,188	134	\$37,813						2,216	\$36,044
50-54	120	\$34,650	160	\$35,498	89	\$36,539	64	\$39,169	47	\$40,830	353	\$35,824	402	\$37,046	345	\$41,319	210	\$42,339	128	\$43,425	20	\$46,107				1,938	\$38,535
55-59	80	\$37,934	96	\$36,791	68	\$34,400	52	\$35,269	25	\$34,738	271	\$35,947	330	\$39,143	210	\$41,487	181	\$43,100	63	\$43,261	30	\$55,387	6	\$55,924		1,412	\$39,308
60-64	40	\$44,676	45	\$40,475	32	\$37,316	31	\$37,012	27	\$37,351	156	\$37,129	186	\$39,368	104	\$41,175	71	\$45,146	32	\$48,620	16	\$50,087	5	\$69,165		745	\$40,622
65 & Over	8	\$32,571	11	\$26,289	8	\$38,044	10	\$47,034	9	\$30,881	53	\$40,194	75	\$38,303	32	\$41,384	24	\$44,809	6	\$50,442	2	\$35,058	5	\$52,292		243	\$39,668
Total	1,554	\$30,419	1,357	\$31,105	742	\$32,228	520	\$33,797	448	\$33,725	2,407	\$33,247	2,209	\$36,539	1,496	\$38,379	958	\$40,088	370	\$41,786	68	\$50,813	16	\$58,926		12,145	\$34,788

Average: Age: 44.84 Service: 9.31
 Number of participants: Fully vested: 7,524 Not Vested: 4,621
 Males: 6,688 Females: 5,457

Summary of Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the July 1, 2006, 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 Group A benefits provisions.

- 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 of Service	Service-related Component	Total Annual Rate of Increase Including 3.00% Inflation Component and 0.0% General Increase Rate
(1)	(2)	(3)
0	2.50%	5.50%
1	2.00	5.00
2	1.75	4.75
3	1.25	4.25
4	1.00	4.00
5	1.00	4.00
6	1.00	4.00
7	1.00	4.00
8	0.50	3.50
9	0.50	3.50
10 or more	0.00	3.00

- c. Payroll growth rate: In the amortization of the unfunded actuarial accrued liability, payroll is assumed to increase 3.00% per year. This increase rate is solely due to the effect of inflation on salaries, with no allowance for future membership growth.

5. Demographic Assumptions

a. Retirement Rates

	Expected Retirements per 100 Lives	
Age	Males	Females
(1)	(2)	(3)
50	20	13
51-54	14	13
55	14	15
56	14	15
57	14	15
58	14	15
59	14	15
60	16	16
61	16	18
62	30	30
63	30	25
64	22	25
65	28	25
66-69	22	19
70	100	100

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 below:

Expected Deaths per 100 Lives				
Age	Healthy Males	Healthy Females	Disabled Males	Disabled 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

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.

Probability of Decrement Due to Withdrawal – Male Members

Age	Years of Service										
	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

Age	Years of Service										
	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

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.
- 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.
- l. 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, (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 Group and Drop data.

All healthy and disabled retirees are assumed to have 100% joint and survivor, prorated by the 70% marriage assumption and reflecting the 3 year spousal age differential. All non-children beneficiaries are assumed to have life only benefits and all children beneficiaries' annuities are assumed to stop at age 21.

Salary supplied for the current year was based on the earnings for the year preceding the valuation date. This salary was adjusted by the salary increase rate for one year. For members who worked less than 1900 hours but were not new entrants, the salary was annualized to 1900 hours.

In fiscal years when a 27th pay period occurs the individual pays for employees who were employed throughout the year 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

5% of current Group B members are assumed to transfer to Group A each year for the next four years, ultimately resulting in 20% of current Group B members transferring to Group A.

All Group B members who are assumed to transfer to Group A and all current Group A members with convertible Group B service are assumed not to convert their Group B service to Group A service. The conversion price is determined on an actuarially equivalent basis and therefore it should be non-material to HMEPS.

Summary of Plan Provisions

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 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.

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

b. Benefit Prior to August 1, 2000:

Group A: 2.25% of FAS for each of the first 20 years of Credited Service, plus 2.75% of FAS for each year of Credited Service over 20, to a maximum of 80% of FAS. Minimum monthly benefit is greater of \$8 times years of Credited Service or \$100.

Group B: 1.50% of FAS for each of first 10 years of Credited Service, plus 1.75% of FAS for each year of Credited Service over 10 through 20, plus 2.00% of FAS for each year of Credited Service over 20, to a maximum of 80% of FAS.

On or after August 1, 2000 and prior to May 11, 2001:

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 80% of FAS. Minimum monthly benefit is greater of \$8 times years of Credited Service or \$100.

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 80% of FAS for all future retirees.

Group C: Double the rate for Group A

On or after May 11, 2001 and 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 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 2.75% 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.

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: Accrued normal retirement benefit payable at the normal retirement eligibility date.

If the actuarial present value of a pension is less than \$10,000, 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: Accrued normal retirement benefit, but not less than 20% of final monthly salary at time of disability.

8. Nonservice-Connected Disability Retirement

- a. Eligibility 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 Prior to September 1, 1999:

If there is a surviving spouse, 80% of FAS payable to the spouse plus 10% of FAS to each qualifying dependent to a maximum of 20% for all dependents. If there is no surviving spouse, dependent benefits are doubled.

On or after September 1, 1999:

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 Prior to September 1, 1999:

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.

On or after September 1, 1999 and prior to
August 1, 2001:

If there is a surviving spouse, 85% 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 in the aggregate. The surviving spouse's benefit will be reduced by the excess, if any, over 100% of the accrued normal retirement benefit. If there is no surviving spouse, dependent benefits are 50% of the benefit a surviving spouse would have received for each dependent subject to 100% of a surviving spouse's benefit for all dependents in the aggregate.

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

Prior to September 1, 1999:

If there is a surviving spouse, 75% of the retirement benefit the deceased retiree was receiving at the time of death payable to the spouse plus 10% of that retirement benefit payable to each qualifying dependent to a maximum of 20% for all dependents. If there is no surviving spouse, dependent benefits are double.

On or after September 1, 1999 and prior to August 1, 2001:

If there is a surviving spouse, 85% of the retirement benefit the deceased retiree was receiving at the time of death payable to the spouse plus 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, dependent benefits are 50% of the benefit a surviving spouse would have received for each dependent subject to 100% of a surviving spouse's benefit for all dependents in the aggregate.

On or after August 1, 2001:

If there is a surviving spouse, 100% of the retirement benefit if 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.

11. Benefit Adjustments

Prior to May 11, 2001:

Each year, effective February 1, monthly benefits will be increased 3.5%, not compounded, for all retirees and survivors whose benefit was effective on or before January 1 of the current year.

On or after May 11, 2001 but 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.

12. Contribution Rates.

- a. Members 5% of salary only for the Group A members. None for the Group B 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 FY2006 and \$72 million for FY2007.

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 Prior to May 11, 2001:

Adjustments: The Monthly DROP Credit for participants who entered the DROP effective on or before January 1 of the then current year is increased effective February 1 each year by 3.5%, not compounded.

On or after May 11, 2001 but prior to January 1, 2005:

The Monthly DROP Credit for participants who entered the DROP effective on or before January 1 of the then current year is increased effective February 1 each year by 4.0%, not compounded.

On or after January 1, 2005:

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

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

e. **DROP Account**

Balance

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

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 calendar year.
 - 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.