

**Houston Municipal Employees Pension System**

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**ACTUARIAL VALUATION**  
**July 1, 2005**

February 7, 2006

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, 2005**

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, 2005 actuarial valuation would normally be used by the Board when determining the employer contribution rate for the year beginning July 1, 2006 and ending June 30, 2007.

However, under the terms of the "Meet and Confer" agreement between the Board and the City of Houston, the employer contribution amounts for FY2006 and FY2007 have already been set at \$69 million and \$72 million respectively. The calculated contribution rate from this valuation will not be contributed.

Also, as part of the "Meet and Confer" agreement, a pension obligation note (collateral for the note is provided by the City's interest in a City-owned hotel) of \$300 million was contributed by the City to the pension trust as of November 2004. This contribution is reflected in this valuation as a contribution and is included in the market value and actuarial value of assets throughout the report.

**Benefit provisions**

The benefit provisions reflected in this valuation are those which were in effect on July 1, 2005, 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, 2004 report.

The benefit provisions have not changed since the prior valuation other than the prospective elimination of Group C participation effective January 1, 2005. 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. 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, 2005). 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, 2005 is 65.2%. This is higher than the 57.0% from the 2004 valuation. The major cause for this increase was the \$300 million note contributed by the City to HMEPS.

The calculated employer contribution rate for FY 2007 is 24.10%. This rate is significantly lower than the 29.43% from the 2004 valuation.

## Data

Member data for retired, active and inactive members was supplied as of July 1, 2005 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, 2005 was taken from the Comprehensive Annual Financial Report for the Year Ended June 30, 2005.

## Certification

We certify that the information presented herein is accurate and fairly portrays the actuarial position of HMEPS as of July 1, 2005.

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, 2005	July 1, 2004
Membership		
• Number of:		
- Active members	11,974	11,856
- Retirees and beneficiaries	7,523	6,878
- Inactive members	<u>3,893</u>	<u>3,477</u>
- Total	23,390	22,211
• Annualized Payroll supplied by HMEPS <sup>1</sup>	\$ 404,565	\$ 366,190
Calculated Contribution rates		
• Member (weighted) <sup>2</sup>	3.98%	3.79%
• Employer	24.10%	29.43%
Assets		
• Market value	\$ 1,824,852	\$ 1,418,726
• Actuarial value	1,777,656	1,501,235
• Estimation of return on market value <sup>3</sup>	12.9%	18.1%
• Estimation of return on actuarial value	4.1%	4.2%
• Employer contribution <sup>4</sup>	\$ 363,247	\$ 57,308
• Ratio of actuarial value to market value	97.4%	105.8%
Actuarial Information		
• Employer normal cost %	8.47%	8.53%
• Unamortized actuarial accrued liability (UAAL)	\$ 947,616	\$ 1,132,582
• Amortization rate	15.63%	20.90%
• Funding period	30.0 years	30.0 years
• GASB funded ratio	65.2%	57.0%
Projected employer contribution based on calculated rate		
• Fiscal year ending June 30,	2007	2006
• Projected payroll (millions)	\$ 432.1	\$ 390.5
• Projected employer contribution (millions)	\$ 104.2	\$ 114.9
(actual contribution rate set by Meet & Confer)		

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

<sup>1</sup> Beginning with the 2005 valuation, a change in methodology now annualizes payroll for new entrants.

See page 5 for more information.

<sup>2</sup> Employee contribution rate for contributing members is 4% prior to January 1, 2005 and 5% thereafter.

<sup>3</sup> Dollar-weighted return. The time-weighted return reported in the Comprehensive Annual Financial Report for fiscal year 2005 was 13.85% and 18.64% for fiscal year 2004.

<sup>4</sup> July 1, 2005 contribution information includes \$300 million 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, 2006, based on current board policy
- The calculated employer rate will not be contributed during fiscal year 2007. As part of the “Meet and Confer” agreement, the contribution amount for fiscal year 2007 was set to \$72 million
- Table 6 reconciles the calculated contribution rate from the prior valuation to the current valuation
- There were no changes to the benefit provisions other than the elimination of Group C participation effective January 1, 2005
- There were no material changes to the actuarial assumptions
- Amortization payment is based on
  - 30-year open funding period beginning July 1, 2005
  - 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 increased from the prior year and the Plan’s contribution rate decreased from the prior year primarily due to the \$300 million note contributed by the City during the year
  - Analysis of the change in contribution rates is shown on Table 6
- The Plan experienced a loss on the actuarial value of assets due to the recognition of investment losses from fiscal years 2001, 2002 and 2003
  - Because the actuarial asset method smoothes gains and losses over five years, only 20% of the FY2004 and FY2005 investment gain is reflected in these results
  - The remainder of the actuarial investment losses for FY2002 and FY2003 will be recognized in future years
  - 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 slightly 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, 2005. 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, 2006. Note that as part of the Meet and Confer agreement, the employer contribution amounts for fiscal years 2006 and 2007 have already been set.

## Financial Data and Experience

As of July 1, 2005, HMEPS has a total market value of about \$1.82 billion. Financial information was gathered from the 2005 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, 54.0% of invested assets are held in equities, compared with 52.9% last year and compared with a 50% investment policy target. 29.1% of invested assets are held in limited partnerships, real estate trusts, loans and mortgages, compared with 30.3% 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 FY2005.

During FY2005, the dollar-weighted total investment return on market values was 12.85%, as shown on Table 12. (The time-weighted return reported in the Comprehensive Annual Financial Report for FY2005 was 13.85%.)

In determining the contribution rates and funded status of the funds, 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 \$1.78 billion. The AVA is 97.4% of the MVA, compared to 105.8% last year.

In addition to the market return, Table 12 also shows the return on the actuarial value of assets for HMEPS. For FY2005, this return was 4.12%. Because this is less than the assumed 8.5% investment return, an actuarial loss occurred increasing the unfunded actuarial accrued liabilities of the plan. Table 14 shows a summary of market and actuarial return rates in recent years.

## Member Data

The Meet and Confer agreement, including the uncertainty during the negotiations as well as the impact of changing the benefit provisions, has created unusual turnover and retirement patterns over the last two valuations. In both valuations, there were significantly more retirements than expected. When these members retired, they were replaced by younger members, usually on a lower pay scale, and their retirements created fluctuation in the funded position of HMEPS. The impact of the changes on the membership should be over and the next few years should show retirement and termination patterns closer to expected, smoothing out the funding status and creating smaller liability gains and losses.

Member data as of July 1, 2005 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 11,856 to 11,974, a 1.0% increase. This is the first time active membership has not decreased since 1995. Over the last five years active membership has decreased on average 1.85% 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.

Beginning with this valuation, the payroll used for new entrants will be annualized. In prior valuations, the actual pay paid during the prior year was used for new entrants. Annualizing the payroll has two impacts on the valuation: (1) it more accurately values the future benefits and payroll for these members and (2) it provides a better estimate of the total covered payroll.

The valuation assumes a constant number of active members when determining the covered payroll to be used to amortize the UAAL. Therefore, active participants leave employment for various reasons throughout the valuation year and are replaced with new entrants. If the payroll for the new entrant is not annualized, the payroll for the participant who left employment will not be taken into account and the true covered payroll for the year will be underestimated.

For example, the estimated covered payroll for FY2005 used in the 2004 actuarial valuation was \$379 million. This was based on an un-annualized covered payroll of \$366 million as of July 1, 2004. The actual payroll that contributions were made on in fiscal year 2005 was \$392 million, 3.5% higher than the estimated payroll. If same procedure used in the prior valuation had been followed, the payroll for the July 1, 2005 valuation would have been \$376 million, producing an

estimated FY2006 contribution payroll of \$390 million. It is not reasonable to assume the payroll for a constant population in a given year will be less than the payroll for the same population the year before. Annualizing the new entrant payroll produces a total covered payroll of \$405 million as of July 1, 2005, which is more reasonable when compared to the actual contribution payroll of \$392 million in FY2005.

This change did not have a significant impact on the liabilities of HMEPS because new entrants do not have significant accrued liabilities, but the change did increase the covered payroll significantly and therefore lowered the calculated required contribution rate.

Total active member payroll increased 10.5% last year, compared with a 6.2% decrease the prior year and a 2.3% decrease the year before that. The 10.5% increase includes the change in the way the payroll for new entrants was determined. The methodology change increased the payroll 7.5% and therefore the actual increase in covered payroll was 2.75%. This was the first valuation since 2000 in which the covered payroll did not decrease.

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.

Several changes in the benefit provisions became effective during FY 2005. All of these changes other than the elimination of Group C were reflected in the prior valuation. The following is a summary of the changes made:

1. Rule of 75 with minimum age 50 retirement eligibility: For all members who have not attained 68 points (age plus service) as of January 1, 2005, the current Rule of 70 provisions will be changed to Rule of 75. Also, a minimum age requirement of 50 will be added. For example, if a member is 48 years old with 27 years of service, even though the member has 75 points, the member will not be eligible to retire until age 50. The age 62 with 5 years of service retirement eligibility condition is not impacted by this change.
2. Return to Pre-2001 formula for accruals on and after January 1, 2005: All accruals on and after January 1, 2005 will be the same as the pre-2001 formulas for Groups A and B respectively. All accruals prior to January 1, 2005 will remain unchanged. The maximum accrual for any member will stay unchanged at 90% of Final Average Salary.
3. 5% Employee contributions: Effective January 1, 2005, all current and future contributory members (including those who are DROP participants) will contribute 5% of pay. This is 1% of pay more than the previous 4% of pay.
4. Change to the guaranteed COLAs: For any member hired prior to January 1, 2005, the future COLAs granted beginning February 1, 2005 will be 3% of the original benefit, a decrease from the previous 4%. Future COLAs for members who are hired on or after January 1, 2005, will be 2%, except that pre-2005 retirees who are rehired will receive a 3% COLA on their subsequent benefit as well.
5. DROP interest crediting rate: The DROP interest crediting rate will be tied to the market return HMEPS experienced in the prior fiscal year. The actual credit will be 50% of the market return. This crediting rate will have a maximum rate of 7.5% and a minimum rate of 2.5%.
6. Freeze DROP recalculation of Final Average Salary as of January 1, 2005: For members not yet eligible to retire (as of January 1, 2005), the Final Average Salary used to calculate the ultimate retirement benefit will be the same as the Final Average Salary used to determine the original DROP benefit. For members past retirement eligibility or currently in DROP, the Final Average Salary used to calculate the ultimate retirement benefit will be the Final Average Salary at the later of DROP entry or January 1, 2005. (Previously, the ultimate retirement benefit was recalculated using the Final Average Salary at retirement.)
7. Employee Contributions while in DROP: Employee contributions during the DROP period are no longer credited to the member's DROP account. For members in DROP or eligible for retirement as of January 1, 2005, contributions made after DROP entry but prior to

January 1, 2005 will be credited to the DROP account while contributions after this date will not be credited to the DROP account.

8. Eliminate Back DROP: Active members not eligible for retirement at January 1, 2005, and all future employees will have to request to enter DROP on or before their DROP entry date. Members who are eligible to retire on or prior to January 1, 2005 must request Back DROP before January 1, 2005; after that date those members will only be able to enter DROP on a prospective basis.
9. As of September 15, 2004, members who transfer from Group B to Group A or who are currently in Group A but have previous Group B service that can be converted will have to pay an actuarially equivalent conversion price plus 8.5% simple interest. Previously, the conversion price was the missed 4% contributions brought forward at 6% simple interest.
10. Elimination of Group C: Effective January 1, 2005, all Group C participation ceased and former Group C participants became Group A members. The change did not affect any Group C accruals prior to January 1, 2005.

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 new actuarial assumptions for this valuation in connection with the 2004 experience investigation performed by GRS and independently reviewed by Mercer Consulting.

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 increased over the last two 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, 2005		Valuation as of July 1, 2004	
	Cost Item (1)	Cost as % of Pay (2)	Cost Item (3)	Cost as % of Pay (4)
1. Participants				
a. Actives	11,974		11,856	
b. Retirees	5,592		4,952	
c. Disabled retirees	483		495	
d. Beneficiaries	1,448		1,431	
e. Inactive, deferred vested	2,659		2,434	
f. Inactive, nonvested	1,234		1,043	
g. Total	23,390		22,211	
2. Covered payroll <sup>1</sup>	\$ 404,565		\$ 366,190	
3. Averages for active members				
a. Average age	44.8		45.1	
b. Average years of service	9.6		10.3	
c. Average pay (\$)	\$ 33,787		\$ 30,886	
4. Present value of future pay	\$ 2,675,293		\$ 2,453,402	
5. Total normal cost rate	12.45%		12.32%	
6. Present value of future benefits	\$ 3,061,556	756.8%	\$ 2,942,152	803.4%
7. Present value of future normal costs	\$ 323,625	80.0%	\$ 292,750	79.9%
8. Service purchase receivable	\$ (12,659)		\$ (15,584)	
9. Actuarial accrued liability (6 - 7 + 8)	\$ 2,725,272	673.6%	\$ 2,633,817	719.2%
10. Present actuarial assets	\$ 1,777,656	439.4%	\$ 1,501,235	410.0%
11. Unfunded actuarial accrued liability (UAAL)	\$ 947,616	234.2%	\$ 1,132,582	309.3%
12. Employee contribution rate (weighted) <sup>2</sup>	3.98%		3.79%	
13. Funding period	30 years		30 years	
14. Employer contribution rate				
a. Net Normal cost (5-12)	8.47%		8.53%	
b. Amortization charge	15.63%		20.90%	
c. Total	24.10%		29.43%	
15. Average estimated return				
a. Based on market value	12.85%		18.10%	
b. Based on actuarial value	4.12%		4.16%	
16. GASB 25 funded ratio	65.2%		57.0%	

Note: Dollar amounts in \$000

<sup>1</sup> Beginning with the 2005 valuation, a change in methodology now annualizes payroll for new entrants.

See page 5 for more information.

<sup>2</sup> Employee contribution rate for contributing members is 4% prior to January 1, 2005 and 5% thereafter

**Calculation of Annual Required Contribution Rate**

	July 1, 2005 (1)	July 1, 2004 (2)
1. Covered payroll <sup>1</sup>	\$ 404,565	\$ 366,190
2. Covered payroll adjusted for one-year's pay increase	\$ 419,542	\$ 379,095
3. Present value of future pay	\$ 2,675,293	\$ 2,453,402
4. Normal cost rate		
a. Total normal cost rate	12.45%	12.32%
b. Less: member contribution rate (weighted)	(3.98%)	(3.79%)
c. Employer normal cost rate	8.47%	8.53%
5. Actuarial accrued liability for active members		
a. Present value of future benefits for active members	\$ 1,484,211	\$ 1,586,995
b. Less: present value of future normal costs	(323,625)	(292,750)
c. Service Purchase Receivable <sup>2</sup>	(12,659)	(15,584)
d. Actuarial accrued liability	\$ 1,147,927	\$ 1,278,661
6. Total actuarial accrued liability for:		
a. Retirees and beneficiaries	\$ 1,483,664	\$ 1,267,118
b. Inactive participants	93,681	88,039
c. Active members (Item 5d)	1,147,927	1,278,661
d. Total	\$ 2,725,272	\$ 2,633,817
7. Actuarial value of assets	\$ 1,777,656	\$ 1,501,235
8. Unfunded actuarial accrued liability (UAAL) (Item 6d - Item 7)	\$ 947,616	\$ 1,132,582
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	15.63%	20.90%
b. Employer normal cost	8.47%	8.53%
c. Contribution requirement (a + b)	24.10%	29.43%

Note: Dollar amounts in \$000

<sup>1</sup> Beginning with the 2005 valuation, a change in methodology now annualizes payroll for new entrants.

See page 5 for more information.

<sup>2</sup> Includes actual current receivable for actives who have entered into an obligation.

**Actuarial Present Value of Future Benefits**

	<u>July 1, 2005</u>	<u>July 1, 2004</u>
	(1)	(2)
1. Active members		
a. Retirement benefits	\$ 1,318,713	\$ 1,414,343
b. Deferred termination benefits	84,669	82,601
c. Refunds	8,043	16,686
d. Death benefits	47,452	49,858
e. Disability benefits	25,334	23,507
f. Total	<u>\$ 1,484,211</u>	<u>\$ 1,586,995</u>
2. Members in Pay Status		
a. Service retirements	\$ 1,343,473	\$ 1,132,649
b. Disability retirements	39,908	40,960
c. Beneficiaries	100,283	93,509
d. Total	<u>\$ 1,483,664</u>	<u>\$ 1,267,118</u>
4. Inactive members		
a. Vested terminations	\$ 92,498	\$ 85,468
b. Nonvested terminations	1,183	2,571
c. Total	<u>\$ 93,681</u>	<u>\$ 88,039</u>
5. Total actuarial present value of future benefits	<u>\$ 3,061,556</u>	<u>\$ 2,942,152</u>

Note: Dollar amounts in \$000

**Analysis of Normal Cost**

	<u>July 1, 2005</u>	<u>July 1, 2004</u>
	(1)	(2)
1. Gross normal cost rate		
a. Retirement benefits	9.06%	8.93%
b. Deferred termination benefits	1.56%	1.57%
c. Refunds	0.68%	0.69%
d. Disability benefits	0.53%	0.51%
e. Death benefits	0.62%	0.62%
f. Total	<u>12.45%</u>	<u>12.32%</u>
2. Less: member contribution rate		
a. Present Value of Employee Contributions	\$ 106,452	\$ 92,888
b. Present value of future pay	\$ 2,675,293	\$ 2,453,402
c. Effective member contribution rate (2a/2b)	(3.98%)	(3.79%)
3. Employer normal cost rate (Item 1f - Item 2c)	8.47%	8.53%

Note: Dollar amounts in \$000

**Calculation of Total Actuarial Gain or Loss**

1. Unfunded actuarial accrued liability (UAAL) as of July 1, 2004	\$	1,132,582
2. Total normal cost for year		48,353
3. Contributions during year ending June 30, 2005		(386,735)
4. Interest on UAAL for one year		96,269
5. Interest on Item 2 and Item 3 for one-half year		<u>(14,088)</u>
6. Expected UAAL as of July 1, 2005 (1+2+3+4+5)	\$	876,381
7. Actual UAAL as of July 1, 2005	\$	947,616
8. Actuarial gain/(loss) for the period (6 - 7)	\$	(71,235)
 <u>SOURCE OF GAINS/(LOSSES)</u>		
9. Asset gain/(loss) (See Table 13)	\$	(70,201)
10. Assumption changes		-
11. Total liability gain/(loss) for the period (8 - 9 -10)	\$	(1,034)

Note: Dollar amounts in \$000

**Change in Calculated Contribution Rate Since the Prior Valuation**

1.	Calculated Contribution Rate as of July 1, 2004		29.43%
2.	Change in Contribution Rate During Year		
	a. Change in Employer Normal Cost	(0.06%)	
	b. Assumption changes	0.00%	
	c. Recognition of prior asset losses (gains)	1.45%	
	d. Actuarial (gain) loss from current year asset performance	(0.23%)	
	e. Actuarial (gain) loss from liability sources	(0.01%)	
	f. Impact of City contributing more than actual cost of plan <sup>1</sup>	(5.08%)	
	g. Effect of Payroll growing faster than Payroll Growth Rate	(1.16%)	
	h. Effect of resetting amortization period to 30 years	(0.24%)	
	i. Total Change		<u>(5.33%)</u>
3.	Calculated Rate as of July 1, 2005		24.10%

<sup>1</sup> Reflects impact of \$300 million note issued by City to HMEPS

Near Term Outlook

Valuation as of July 1,	Unfunded Actuarial Accrued Liability (UAAL, in 000s)	Funded Ratio	Calculated Contribution Rate	Funding Period (Years) <sup>2</sup>	Funded Ratio Using MVA	For Fiscal Year Ending June 30,	Covered Compensation	Employer Contributions	Employee Contributions	Benefit Payments and Refunds	Net External Cash Flow
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(9)	(10)	(11)
2005	\$ 947,616	65.2%	24.10%	30.0	67.0%	2006	\$ 419,542	\$ 69,000 <sup>1</sup>	\$ 16,712	\$ 217,336	\$ (131,624)
2006	1,008,541	63.7%	24.61%	30.0	66.3%	2007	431,992	72,000 <sup>1</sup>	17,597	166,156	(76,559)
2007	1,026,959	64.5%	23.93%	30.0	66.3%	2008	443,203	109,069	18,415	177,810	(50,326)
2008	995,701	67.0%	23.04%	30.0	67.4%	2009	455,055	108,909	19,252	188,189	(60,028)
2009	989,630	68.4%	22.58%	30.0	68.4%	2010	467,129	107,638	20,104	197,928	(70,187)
2010	999,632	69.2%	22.56%	29.0	69.2%	2011	479,705	108,339	20,989	208,566	(79,238)
2011	1,010,576	70.0%	22.54%	28.0	70.0%	2012	492,383	111,080	21,885	220,241	(87,276)
2012	1,020,467	70.7%	22.52%	27.0	70.7%	2013	505,600	113,973	22,806	232,353	(95,574)
2013	1,029,141	71.5%	22.51%	26.0	71.5%	2014	519,243	116,951	23,743	245,126	(104,432)
2014	1,036,447	72.2%	22.48%	25.0	72.2%	2015	533,497	120,067	24,703	257,982	(113,211)
2015	1,042,211	72.9%	22.46%	24.0	72.9%	2016	548,310	123,281	25,681	271,027	(122,065)

These projections are based on the benefit provisions in effect for the July 1, 2005 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.

<sup>1</sup> The agreement between the City and the HMEPS included a \$63 million employer contribution and \$300 million note for FY 2005, a \$69 million employer contribution for FY 2006, and a \$72 million employer contribution for FY2007.

<sup>2</sup> The agreement between the City and the 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

	<u>July 1, 2005</u>	<u>July 1, 2004</u>
	(1)	(2)
<b>A. ASSETS</b>		
1. Current Assets		
a. Cash and short term investments		
1) Cash on hand	\$ 875	\$ 2,691
2) Short term investments	97,408	53,978
b. Accounts Receivable		
1) Sale of investments	54,781	7,496
2) Other	14,798	18,310
c. Total Current Assets	<u>\$ 167,862</u>	<u>\$ 82,475</u>
2. Long Term Investments		
a. US. Government securities	\$ 62,840	\$ 88,750
b. Corporate bonds	73,687	100,820
c. Capital stocks	458,702	552,420
d. Commingled Funds	420,920	291,694
e. LP's, real estate trusts, loans and mortgages	372,738	350,343
f. Total long term investments	<u>\$ 1,388,887</u>	<u>\$ 1,384,027</u>
3. Other Assets		
a. Collateral on securities lending	\$ 95,636	\$ 109,440
b. Furniture, fixtures and equipment, net	828	796
c. Note receivable - City of Houston	300,000	0
d. Accrued interest on note receivable	16,363	0
e. Total other assets	<u>\$ 412,827</u>	<u>\$ 110,236</u>
4. Total Assets	<u>\$ 1,969,576</u>	<u>\$ 1,576,738</u>
<b>B. LIABILITIES</b>		
1. Current Liabilities		
a. Amounts due on asset purchases	\$ 45,452	\$ 45,570
b. Accrued liabilities	3,636	3,003
c. Collateral on securities lending	95,636	109,440
2. Total Liabilities	<u>144,724</u>	<u>158,013</u>
3. Net Assets Held in Trust	<u>\$ 1,824,852</u>	<u>\$ 1,418,725</u>
<b>C. ASSET ALLOCATION FOR CASH &amp; LONG TERM INVESTMENTS</b>		
1. Cash	0.9%	0.7%
2. Fixed Income	16.0%	16.1%
3. Real Assets	14.7%	16.5%
4. Domestic Equities	32.6%	31.9%
5. International Equities	21.4%	21.0%
6. Alternative Investments	<u>14.4%</u>	<u>13.8%</u>
7. Total	100.0%	100.0%

Note: Dollar amounts in \$000

**Reconciliation of Plan Net Assets**

	Year Ending	
	June 30, 2005 (1)	June 30, 2004 (2)
1. Market value of assets at beginning of year	\$ 1,418,725	\$ 1,266,190
2. Revenue for the year		
a. Contributions		
i. Member contributions	\$ 23,488	\$ 26,189
ii. Employer contributions	363,247	57,308
iii. Total	\$ 386,735	\$ 83,497
b. Net investment income		
i. Interest	\$ 11,101	\$ 9,514
ii. Dividends	9,891	15,134
iii. Earnings from LP's and real estate trusts	45,070	19,464
iv. Net appreciation (depreciation) on investments	124,002	189,465
v. Interest income - City of Houston note receivable	16,363	0
vi. Net proceeds from lending securities	352	352
vii. Less investment expenses	(5,996)	(6,568)
viii. Other	888	726
c. Total revenue	\$ 588,405	\$ 311,584
3. Expenditures for the year		
a. Refunds	\$ 992	\$ 635
b. Benefit payments	175,480	153,202
c. Administrative and miscellaneous expenses	5,806	5,212
d. Total expenditures	\$ 182,278	\$ 159,049
4. Increase in net assets (Item 2c - Item 3d)	\$ 406,127	\$ 152,535
5. Market value of assets at end of year (Item 1 + Item 4)	\$ 1,824,852	\$ 1,418,725

Note: Dollar amounts in \$000

Calculation of Excess Investment Income

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

Note: Dollar amounts in \$000

**Development of Actuarial Value of Assets**

	<u>July 1, 2005</u>	<u>July 1, 2004</u>
	(1)	(2)
1. Excess (Shortfall) of invested income for current and previous three years		
a. Current year	\$ 66,518	\$ 118,177
b. Current year - 1	118,177	(77,263)
c. Current year - 2	(77,263)	(230,096)
d. Current year - 3	(230,096)	(193,278)
e. Total for four years	<u>\$ (122,664)</u>	<u>\$ (382,459)</u>
2. Deferral of excess (shortfall) of invested income		
a. Current year (80%)	53,214	94,542
b. Current year - 1 (60%)	70,906	(46,358)
c. Current year - 2 (40%)	(30,905)	(92,038)
d. Current year - 3 (20%)	(46,019)	(38,656)
e. Total deferred for year	<u>\$ 47,196</u>	<u>\$ (82,510)</u>
3. Market value of assets at end of year	\$ 1,824,852	\$ 1,418,725
4. Actuarial value of assets at end of year: (3) - (2e)	\$ 1,777,656	\$ 1,501,235

Note: Dollar amounts in \$000

**Estimation of Dollar-Weighted Investment Return**

Item (1)	Market Value <sup>1</sup> (2)	Actuarial Value (3)
1. Assets as of July 1, 2004 (A)	\$ 1,418,725	\$ 1,501,235
2. Contributions during FY05	386,735	386,735
3. Benefit payments made during FY05	175,480	175,480
4. Refunds of contributions during FY05	992	992
5. Expenses during FY05	5,806	5,806
6. Investment return during FY05	201,670	71,964
7. Assets as of July 1, 2005 (B): (1 + 2 - 3 - 4 - 5 + 6 )	1,824,852	1,777,656
8. Approximate rate of return on average invested assets		
a. Net investment income (6 - 5 = I)	195,864	66,158
b. Estimated return based on $(2I/(A + B - I))$	12.85%	4.12%

Note: Dollar amounts in \$000

<sup>1</sup> The time-weighted return reported in the Comprehensive Annual Financial Report for fiscal year 2005 was 13.85%.

**Investment Experience Gain or Loss**

Item (1)	Valuation as of 38533 (2)	Valuation as of 38168 (3)
1. Actuarial assets, prior valuation	\$ 1,501,235	\$ 1,510,264
2. Total contributions since prior valuation	\$ 386,735	\$ 83,497
3. Benefits and refunds since prior valuation	\$ (176,472)	\$ (153,837)
4. Assumed net investment income at 8.5%		
a. Beginning assets	\$ 127,605	\$ 128,372
b. Contributions	16,101	3,476
c. Benefits and refunds paid	(7,347)	(6,405)
d. Total	\$ 136,359	\$ 125,443
5. Expected actuarial assets (Sum of Items 1 through 4)	\$ 1,847,857	\$ 1,565,367
6. Actual actuarial assets, this valuation	\$ 1,777,656	\$ 1,501,235
7. Asset gain (loss) since prior valuation (Item 6 - Item 5)	\$ (70,201)	\$ (64,132)

Note: Dollar amounts in \$000

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### History of Investment Returns

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

<sup>1</sup> Dollar-weighted return.

**Historical Solvency Test**

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

Note: Dollar amounts in \$000

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

**Schedule of Funding Progress**

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%

Note: Dollar amounts in \$000

**Historical City Contribution**

Valuation Date	Calculated Contribution Rate <sup>1</sup>	Time Period for Contribution Rate	Actual Contribution Rate
(1)	(2)	(3)	(4)
July 1, 1987	5.83%	January 1, 1988 through December 31, 1988	5.15%
July 1, 1988	6.27	January 1, 1989 through December 31, 1989	5.15
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 <sup>2</sup>
July 1, 2004	29.43	July 1, 2005 through June 30, 2006	N/A
July 1, 2005	24.10	July 1, 2006 through June 30, 2007	N/A

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

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

**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 <sup>1</sup>	13,764	42.8	9.8	\$394,919	\$28,692	9.8%
1999 <sup>1</sup>	13,286	42.9	9.8	\$396,617	\$29,852	4.0%
2000 <sup>1</sup>	13,126	43.7	10.3	\$421,591	\$32,119	7.6%
2001 <sup>1</sup>	12,928	43.9	10.3	\$413,021	\$31,948	(0.5%)
2002	12,527	44.7	11.0	\$399,794	\$31,915	(0.1%)
2003	12,120	45.2	11.2	\$390,314	\$32,204	0.9%
2004	11,856	45.1	10.3	\$366,190	\$30,886	(4.1%)
2005	11,974	44.8	9.6	\$404,565 <sup>2</sup>	\$33,787 <sup>2</sup>	9.4%

Note: Dollar amounts in \$000

<sup>1</sup> Excludes DROP participants

<sup>2</sup> 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

Note: Dollar amounts in \$000

**Membership Data**

	July 1, 2005 (1)	July 1, 2004 (2)
1. Active members		
a. Number	11,974	11,856
b. Number vested	7,705	8,208
c. Total payroll supplied by HMEPS <sup>1</sup>	\$ 404,565,000	\$366,189,957
d. Average salary <sup>1</sup>	33,787	30,886
e. Average age	44.8	45.1
f. Average service	9.6	10.3
2. Inactive participants (counts)		
a. Vested	2,659	2,434
b. NonVested	1,234	1,043
3. Service retirees		
a. Number	5,592	4,952
b. Total annual benefits	\$ 108,217,394	92,766,274
c. Average annual benefit	19,352	18,733
d. Average age	65.9	66.6
4. Disabled retirees		
a. Number	483	495
b. Total annual benefits	\$ 3,761,785	3,832,094
c. Average annual benefit	7,788	7,742
d. Average age	60.8	60.3
5. Beneficiaries and spouses		
a. Number	1,448	1,431
b. Total annual benefits	\$ 11,232,425	10,485,436
c. Average annual benefit	7,757	7,327
d. Average age	68.3	68.6

<sup>1</sup> 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.

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

Attained Age	0 No. & Avg. Comp.	1 No. & Avg. Comp.	2 No. & Avg. Comp.	3 No. & Avg. Comp.	4 No. & Avg. Comp.	5-9 No. & Avg. Comp.	10-14 No. & Avg. Comp.	15-19 No. & Avg. Comp.	20-24 No. & Avg. Comp.	25-29 No. & Avg. Comp.	30-34 No. & Avg. Comp.	35 & Over No. & Avg. Comp.	Total No. & Avg. Comp.
Under 25	212 \$22,578	57 \$20,837	36 \$21,756	26 \$22,633	18 \$21,354	2 \$21,169							351 \$22,144
25-29	263 \$26,595	153 \$26,233	83 \$27,894	62 \$25,318	57 \$26,115	55 \$26,378							673 \$26,497
30-34	232 \$28,599	131 \$27,815	82 \$29,039	83 \$30,887	76 \$28,504	138 \$29,770	36 \$31,350						778 \$29,083
35-39	229 \$30,947	122 \$28,137	70 \$30,317	79 \$34,075	87 \$29,940	188 \$33,889	142 \$34,825	43 \$33,652	1 \$29,123				961 \$31,978
40-44	203 \$30,596	123 \$32,190	91 \$29,919	83 \$33,138	100 \$27,978	250 \$32,994	208 \$37,540	163 \$36,503	121 \$34,904	5 \$38,954			1,347 \$33,308
45-49	164 \$33,663	127 \$33,517	87 \$33,895	70 \$32,338	108 \$28,927	237 \$36,328	269 \$40,154	192 \$40,067	236 \$39,409	106 \$38,659	1 \$40,362		1,597 \$36,729
50-54	142 \$33,886	97 \$32,959	79 \$38,308	46 \$38,188	63 \$33,647	242 \$37,446	238 \$40,753	213 \$42,276	147 \$42,781	86 \$46,070	29 \$44,433		1,382 \$39,231
55-59	97 \$35,733	69 \$38,268	51 \$34,549	29 \$33,595	72 \$31,296	192 \$37,879	192 \$43,208	124 \$45,205	113 \$45,435	61 \$45,212	22 \$46,737	6 \$76,032	1,028 \$40,512
60-64	36 \$41,007	27 \$32,303	28 \$39,767	26 \$34,655	32 \$37,329	98 \$37,938	126 \$37,638	62 \$45,510	48 \$41,119	17 \$48,342	12 \$50,908	4 \$35,654	516 \$39,512
65 & Over	9 \$27,227	10 \$37,966	6 \$31,682	7 \$33,575	10 \$45,115	42 \$36,545	39 \$44,934	15 \$42,725	8 \$43,726	4 \$42,719	4 \$41,793	5 \$51,727	159 \$40,098
Total	1,606 \$29,664	916 \$30,113	613 \$31,591	511 \$31,888	623 \$29,831	1,444 \$34,916	1,250 \$39,339	812 \$40,841	674 \$40,504	279 \$43,029	68 \$46,106	15 \$57,163	8,811 \$34,675
Average:		Age: Service:	44.42 8.34		Number of participants:	Fully vested: Not Vested:	4,542 4,269		Males: Females:	5,005 3,806			

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

Attained Age	0 No. & Avg. Comp.	1 No. & Avg. Comp.	2 No. & Avg. Comp.	3 No. & Avg. Comp.	4 No. & Avg. Comp.	5-9 No. & Avg. Comp.	10-14 No. & Avg. Comp.	15-19 No. & Avg. Comp.	20-24 No. & Avg. Comp.	25-29 No. & Avg. Comp.	30-34 No. & Avg. Comp.	35 & Over No. & Avg. Comp.	Total No. & Avg. Comp.
Under 25													
25-29						76 \$25,645	2 \$32,038						78 \$25,809
30-34						184 \$26,763	60 \$27,720	2 \$35,559					246 \$27,068
35-39						213 \$28,344	224 \$30,121	73 \$28,391	6 \$25,601				516 \$29,090
40-44						165 \$29,577	228 \$32,369	147 \$30,711	74 \$30,003	4 \$32,876			618 \$30,949
45-49						162 \$30,978	225 \$31,665	128 \$33,798	85 \$31,833	22 \$31,801			622 \$31,953
50-54						128 \$30,461	185 \$32,091	128 \$34,493	57 \$34,301	25 \$34,523	5 \$32,806		528 \$32,639
55-59						80 \$31,967	132 \$34,451	64 \$35,480	46 \$36,625	9 \$40,156	1 \$56,687		332 \$34,573
60-64						37 \$29,413	65 \$34,241	33 \$36,432	25 \$36,184	5 \$51,281	1 \$66,174	1 \$23,346	167 \$34,531
65 & Over						9 \$31,690	23 \$29,069	15 \$34,845	8 \$45,174	1 \$45,224			56 \$33,627
Total						1,054 \$29,069	1,144 \$31,781	590 \$32,873	301 \$33,174	66 \$35,716	7 \$40,984	1 \$23,346	3,163 \$31,314
Average:		Age:	45.78			Number of participants:		Fully vested:	3,163		Males:	1,597	
		Service:	12.92					Not Vested:	0		Females:	1,566	

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

Attained Age	0 No. & Avg. Comp.	1 No. & Avg. Comp.	2 No. & Avg. Comp.	3 No. & Avg. Comp.	4 No. & Avg. Comp.	5-9 No. & Avg. Comp.	10-14 No. & Avg. Comp.	15-19 No. & Avg. Comp.	20-24 No. & Avg. Comp.	25-29 No. & Avg. Comp.	30-34 No. & Avg. Comp.	35 & Over No. & Avg. Comp.	Total No. & Avg. Comp.
Under 25	212 \$22,578	57 \$20,837	36 \$21,756	26 \$22,633	18 \$21,354	2 \$21,169							351 \$22,144
25-29	263 \$26,595	153 \$26,233	83 \$27,894	62 \$25,318	57 \$26,115	131 \$25,953	2 \$32,038						751 \$26,426
30-34	232 \$28,599	131 \$27,815	82 \$29,039	83 \$30,887	76 \$28,504	322 \$28,052	96 \$29,081	2 \$35,559					1,024 \$28,599
35-39	229 \$30,947	122 \$28,137	70 \$30,317	79 \$34,075	87 \$29,940	401 \$30,944	366 \$31,946	116 \$30,341	7 \$26,104				1,477 \$30,969
40-44	203 \$30,596	123 \$32,190	91 \$29,919	83 \$33,138	100 \$27,978	415 \$31,636	436 \$34,836	310 \$33,756	195 \$33,044	9 \$36,253			1,965 \$32,566
45-49	164 \$33,663	127 \$33,517	87 \$33,895	70 \$32,338	108 \$28,927	399 \$34,156	494 \$36,288	320 \$37,559	321 \$37,403	128 \$37,480	1 \$40,362		2,219 \$35,391
50-54	142 \$33,886	97 \$32,959	79 \$38,308	46 \$38,188	63 \$33,647	370 \$35,030	423 \$36,965	341 \$39,354	204 \$40,412	111 \$43,469	34 \$42,723		1,910 \$37,409
55-59	97 \$35,733	69 \$38,268	51 \$34,549	29 \$33,595	72 \$31,296	272 \$36,140	324 \$39,640	188 \$41,895	159 \$42,886	70 \$44,562	23 \$47,170	6 \$76,032	1,360 \$39,063
60-64	36 \$41,007	27 \$32,303	28 \$39,767	26 \$34,655	32 \$37,329	135 \$35,602	191 \$36,482	95 \$42,357	73 \$39,429	22 \$49,010	13 \$52,082	5 \$33,193	683 \$38,295
65 & Over	9 \$27,227	10 \$37,966	6 \$31,682	7 \$33,575	10 \$45,115	51 \$35,688	62 \$39,049	30 \$38,785	16 \$44,450	5 \$43,220	4 \$41,793	5 \$51,727	215 \$38,413
Total	1,606 \$29,664	916 \$30,113	613 \$31,591	511 \$31,888	623 \$29,831	2,498 \$32,449	2,394 \$35,727	1,402 \$37,488	975 \$38,241	345 \$41,630	75 \$45,628	16 \$55,050	11,974 \$33,787
Average:		Age: Service:	44.78 9.55		Number of participants:		Fully vested: Not Vested:	7,705 4,269		Males: Females:	6,602 5,372		

## Summary of Actuarial Assumptions and Methods

The following methods and assumptions were used in preparing the July 1, 2005, 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.

## 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.

All healthy and disabled retirees are assumed to have 100% joint and survivor, prorated by the 70% marriage assumption. 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.

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 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 as well.

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 business day each month.
- c. Other DROP  
Credits 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. 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. Monthly DROP  
Credit 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, and applicable interest.

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**

Several changes to the benefit provisions became effective during the year, however, these changes were reflected in the prior valuation. Please see the Benefit Provisions subsection of the Discussion section of the prior year's report.