Houston Municipal Employees Pension System

ACTUARIAL VALUATION
July 1, 2004

GABRIEL, ROEDER, SM

GABRIEL, ROEDER, SMITH & COMPANY
Consultants & Actuaries
5605 N. MacArthur Blvd. • Suite 870 • Irving, Texas 75038-2631 • 469-524-0000 • fax 469-524-0003

August 30, 2005

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, 2004

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, 2004 actuarial valuation would normally be used by the Board when determining the employer contribution rate for the year beginning July 1, 2005 and ending June 30, 2006.

However, under the terms of the "Meet and Confer" agreement between the Board and the City of Houston, the employer contribution rates for FY2006 and FY2007 have already been set at 16.33% and 16.65% 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 not reflected in this valuation.

Benefit provisions

The benefit provisions reflected in this valuation are those which were in effect on July 1, 2004, as later modified by 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 report. The following is a summary of the changes made in the agreement:

For All Members:

- Return to Pre-2001 formula for accruals on and after January 1, 2005
- 5% Employee contributions for members in Group A
- Change to the guaranteed COLAs from 4% to 3%
- Change DROP interest crediting rate to be half of the return earned by the fund for the prior fiscal year, but not less than 2.5% or more than 7.5%
- Freeze DROP recalculation of Final Average Salary as later of January 1, 2005 or DROP entry date
- Employee Contributions while in DROP will no longer be credited to the employee DROP balance
- Eliminate Back DROP
- Conversion of previous Group B service to Group A service will be made at an actuarially equivalent purchase price

For members with less than 68 points (age + service) as of January 1, 2005:

- Rule of 75 with minimum age 50 retirement eligibility

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 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 changes are discussed in the Actuarial Methods and Assumptions subsection of the Discussion section of the report.

Changes in the assumptions include:

- Change the salary increase rates by modifying the service-based components. The overall impact is to modestly increase assumed salary increase rates for most employees.
- Increase the rates of mortality for healthy retirees and beneficiaries to UP94 mortality table for males and females with a one year set-forward.
- Decrease the rates of mortality for disabled retirees.
- Decrease the rates of disability for active employees.
- Increase the rates of retirement for both males and females, specifically at the younger ages.
- Decrease the rates of termination for both males and females.

- Lower the percentage of current Group B members assumed to transfer to Group A to 20%.
- Eliminate the Group B to Group A service conversion assumption.
- Increase the percent married assumption to 70%.

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, 2004). The amortization rate is adjusted for the one-year deferral in contribution rates.

Progress toward realization of financing objectives

The changes in the assumptions and benefit provisions dramatically changed the current funded status and funding requirements of HMEPS. Because of the changes, the valuation results of the July 1, 2003 and the July 1, 2004 valuations are considerably different.

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, 2004 is 57.0%. This is higher than the 46.1% from the 2003 valuation. The major cause for this increase was the benefit provision changes. The new assumptions and further recognition of prior years' investment performances over the last several years also impacted the funded status.

The calculated employer contribution rate for FY 2006 is 29.43%. This rate is significantly lower than the 52.89% from the 2003 valuation. It should be noted that this number is expected to decrease further for the July 1, 2005 valuation after the contribution of the $300 million pension obligation note is recognized.

Data

Member data for retired, active and inactive members was supplied as of July 1, 2004 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, 2004 was taken from the Comprehensive Annual Financial Report for the Year Ended June 30, 2004.

Certification

We certify that the information presented herein is accurate and fairly portrays the actuarial position of HMEPS as of July 1, 2004.

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

Joe Newton, ASA, EA, MAAA
Consultant

Lewis Ward

Lewis Ward
Consultant

W. Michael Carter, FSA, EA, MAAA
Senior Consultant

2585\2004\Val\2004val.doc

Page

Section I — Executive Summary

Section II — Discussion

Section III — Supporting Exhibits

Executive Summary

Item	July 1, 2004	July 1, 2003
Membership		
• Number of:		
- Active members	11,856	12,120
- Retirees and beneficiaries	6,878	6,215
- Inactive members	3,477	2,950
- Total	22,211	21,285
• Annualized Payroll supplied by HMEPS	$ 366,190	$ 390,314
Calculated Contribution rates		
• Member (weighted)*	3.79%	3.68%
• Employer	29.43%	52.89%
Assets		
• Market value	$ 1,418,725	$ 1,266,190
• Actuarial value	1,501,235	1,510,264
• Return on market value	18.1%	2.3%
• Return on actuarial value	4.2%	1.7%
• Employer contribution	$ 57,308	$ 40,622
• Ratio of actuarial value to market value	105.8%	119.3%
Actuarial Information		
• Employer normal cost %	8.53%	16.48%
• Unamortized actuarial accrued liability (UAAL)	$ 1,132,582	$ 1,767,987
• Amortization rate	20.90%	36.41%
• Funding period	30.0 years	19.5 years
• GASB funded ratio	57.0%	46.1%
Projected employer contribution based on calculated rate		
• Fiscal year ending June 30,	2006	2005
• Projected payroll (millions)	$ 390.5	$ 403.5
• Projected employer contribution (millions) (actual contribution rate set by Meet & Confer)	$ 114.9	$ 213.4

Note: Dollar amounts in $000, unless otherwise noted

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

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, 2005, based on current board policy
- Table 6 reconciles the calculated contribution rate from the prior valuation to the current valuation
- There were material changes to the benefit provisions. A description of the changes is on page 6.
  - — Impact on contribution rates shown on Table 6
- There were material changes to actuarial assumptions. A description of the changes is on page 8.
  - — Impact on contribution rates shown on Table 6
- Amortization payment is based on:
  - — 30-year open funding period beginning July 1, 2004
  - — 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 experienced a loss on the actuarial value of assets which decreased the funded ratio and caused an increase in the contribution rate
  - — Impact on contribution rates shown on Table 6, Item 5b and 5c
  - — Because the actuarial asset method smoothes gains and losses over five years, only 20% of the FY2004 investment gain is reflected in these results.
  - — The remainder of the actuarial investment losses for FY2001 and FY2002 will be recognized in future years and will tend to increase future contribution rates. 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 members 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, 2004. 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, 2005. Note that as part of the Meet and Confer agreement, the employer contribution rates for the next several fiscal years have already been set.

Financial Data and Experience

As of July 1, 2004, HMEPS has a total market value of about $1.42 billion. Financial information was gathered from the 2004 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, 57.6% of invested assets are held in equities, compared with 50.3% last year and compared with a 50% investment policy target. 23.9% of invested assets are held in LP's and real estate 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 FY2004.

During FY2004, the total investment return on market values was 18.10%, as shown on Table 12. This is higher than, but resembles, the return most retirement systems experienced during the same time period.

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 $1.50 billion. The AVA is 105.8% of the MVA.

In addition to the market return, Table 12 also shows the return on the actuarial value for HMEPS. For FY2004, this return was 4.20%. Because this is less than the assumed 8.5% investment return, the plan funded status decreased and the calculated contribution rates increased. Table 14 shows a summary of market and actuarial return rates in recent years.

Member Data

Member data as of July 1, 2004 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 decreased from 12,120 to 11,856, a 2.2% decrease, and over the last five years active membership has decreased on average 2.3% 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.

Total active member payroll decreased 6.2% last year, compared with a 2.3% decrease the prior year and a 3.2% decrease the year before that. If the covered payroll continues to decrease, the contribution as a percentage of payroll will increase. The 6.2% decrease for this valuation increased the required contribution by 1.27%, as shown on Table 6.

Benefit Provisions

Appendix B includes a summary of the benefit provisions for HMEPS.

There were considerable changes to the benefit provisions since 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 current 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 current 4 %. Future COLAs for members who are hired 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 crediting rate will be tied to the market return the System 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. (Currently, the ultimate retirement benefit is recalculated using the Final Average Salary at retirement.)

7. Employee Contributions while in DROP: Employee contributions during the DROP period will no longer be 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 elect 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.

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 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. The following is a summary of the findings in the experience study:

- Inflation rate
  - — Recommend no change in current 3.00% assumption
  - — Component of investment return assumption, salary increase assumption, and assumed payroll growth rate

- Real investment return rate
  - — Recommend no change in current 5.50% assumption
  - — Rate is aggressive but supportable by current asset allocation and expected returns by asset class (based on the capital market assumptions of the System's investment consultant)
  - — Rate is net of administrative and investment expenses

- Investment return rate
  - — Recommend no change in current 8.50% assumption
  - — Comprised of 3.00% inflation and 5.50% real return assumptions
  - — At high end of reasonable range

- Payroll growth rate
  - — Rate at which total HMEPS payroll is expected to grow
  - — Only affects amortization payment, not liability
  - — Recommend no change in current 3.00% assumption, consistent with assumed inflation
  - — Assumes no membership growth, per GASB #25
  - — Recommendation is reasonable, despite population decrease over the recent past

- Salary increase rates
  - — Comprised of inflation, overall "productivity" increases, and longevity/promotional component
  - — Recommend no change in the 0% productivity component
  - — Small changes to the service-related components
  - — Overall impact of changes to service-related components is slightly higher rates of increase

- Post-retirement mortality rates (non-disabled retirees):
  - Current assumption seems too conservative
  - Current tables: 1994 Group Annuity Mortality Table (GAM94), with no set backs
  - Recommend change to 1994 Uninsured Pensioner Table for males and females with a 1-year set-forward for males and females
  - New A/E ratio for proposed tables is 122% for males and 124% for females
  - Changes still leaves substantial margin for future improvement in life expectancy

- Disabled mortality rates:
  - Current assumption seems too liberal
  - Current Table: 1965 Railroad Disability Table
  - 103% A/E ratio for males, 39% A/E ratio for females
  - Recommend adding setbacks of 1 year for males and 5 years for females

- Retirement rates:
  - Data for fiscal year 2000 was not included as anticipated changes in plan provisions produced less retirements than can reasonably be expected
  - Data for fiscal year 2004 was not included as changes in plan provisions produced more retirements than can reasonably be expected
  - Current tables produce A/E ratios of 126% for males and 118% for females
  - Ratios under 100% for this assumption are conservative
  - Recommend increasing most rates, particularly for younger ages
  - Recommended rates produce A/E ratio of 95% for males and 95% for females

- Termination rates:
  - Recommend lowering rates
  - A/E ratios at 90% for males and 84% for females
  - Ratios over 100% for this assumption are conservative
  - Propose moderate decrease in rates for males and females
  - Recommended rates produce A/E ratios of 101% for males and 99% for females
  - Change table to 10 year select and ultimate from current primarily age based rates
- Refunds:
  - Currently assume all vested terminated members will choose the most valuable benefit
  - Conservative assumption

- — No change recommended
- Other assumptions:
  - — Drop Participation: July 1, 2003 valuation assumption was 100% participation. This assumption was modified to 90% as part of the plan redesign studies.
  - — Members transferring from Group B to Group A: Current assumption is 80% of current group B members will eventually transfer to group A. Recommend lowering assumption to 20% to reflect new benefit provisions.
  - — Amount of Group B service to be converted to Group A service: July 1, 2003 valuation assumed all current and future Group A members with Group B service would convert their Group B service to Group A service. This assumption was modified as part of the plan redesign studies. For the studies the assumption was lowered to 15%. We recommend reducing the assumption to 0% because the purchase price is now designed to be actuarially neutral to HMEPS.
  - — Percent married: Recommend raising assumption to 70%, up from 60%.
  - — Active member mortality: Current assumption is to use same mortality as used for post-retirement healthy mortality. Recommend that this practice be continued, so active mortality assumption will be modified in the same manner as the post-retirement mortality assumption.
  - — Spousal age difference, children survivor benefits, etc.: Recommend no changes.

- Actuarial methods:
  - — Entry Age actuarial method still appropriate
  - — Most widely used method among public plans
  - — Actuarial asset method (five-year smoothing) still appropriate

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) has decreased dramatically.

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 less than 30 years.

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-percent-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, 2004		Valuation as of July 1, 2003	
	Cost Item	Cost as % of Pay	Cost Item	Cost as % of Pay
	(1)	(2)	(3)	(4)
1. Participants				
a. Actives	11,856		12,120	
b. Retirees	4,952		4,319	
c. Disabled retirees	495		494	
d. Beneficiaries	1,431		1,402	
e. Inactive, deferred vested	2,434		2,386	
f. Inactive, nonvested	1,043		564	
g. Total	22,211		21,285	
2. Covered payroll	$ 366,190		$ 390,314	
3. Averages for active members				
a. Average age	45.1		45.2	
b. Average years of service	10.3		11.2	
c. Average pay ($)	$ 30,886		$ 32,204	
4. Present value of future pay	$ 2,453,402		$ 2,637,853	
5. Total normal cost rate	12.32%		20.16%	
6. Present value of future benefits	$ 2,942,152	803.4%	$ 3,913,512	1002.7%
7. Present value of future normal costs	$ 292,750	79.9%	$ 520,854	133.4%
8. Service purchase receivable	$ (15,584)		$ (114,406)	
9. Actuarial accrued liability (6 - 7 + 8)	$ 2,633,817	719.2%	$ 3,278,251	839.9%
10. Present actuarial assets	$ 1,501,235	410.0%	$ 1,510,264	386.9%
11. Unfunded actuarial accrued liability (UAAL)	$ 1,132,582	309.3%	$ 1,767,987	453.0%
12. Employee contribution rate (weighted)*	3.79%		3.68%	
13. Funding period	30 years		19.5 years	
14. Employer contribution rate				
a. Net Normal cost (5-12)	8.53%		16.48%	
b. Amortization charge	20.90%		36.41%	
c. Total	29.43%		52.89%	
15. Average estimated return				
a. Based on market value	18.10%		2.34%	
b. Based on actuarial value	4.16%		1.67%	
16. GASB 25 funded ratio	57.0%		46.1%	

Note: Dollar amounts in $000

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

Calculation of Annual Required Contribution Rate

		July 1, 2004 (1)	July 1, 2003 (2)
1.	Covered payroll	$ 366,190	$ 390,314
2.	Covered payroll adjusted for one-year's pay increase	$ 379,095	$ 403,548
3.	Present value of future pay	$ 2,453,402	$ 2,637,853
4.	Normal cost rate		
	a. Total normal cost rate	12.32%	20.16%
	b. Less: member contribution rate (weighted)	(3.79%)	(3.68%)
	c. Employer normal cost rate	8.53%	16.48%
5.	Actuarial accrued liability for active members		
	a. Present value of future benefits for active members	$ 1,586,995	$ 2,797,711
	b. Less: present value of future normal costs	(292,750)	(520,854)
	c. Service Purchase Receivable [1]	(15,584)	(114,406)
	d. Actuarial accrued liability	$ 1,278,660	$ 2,162,450
6.	Total actuarial accrued liability for:		
	a. Retirees and beneficiaries	$ 1,267,118	$ 1,036,757
	b. Inactive participants	88,039	79,044
	c. Active members (Item 5d)	1,278,660	2,162,450
	d. Total	$ 2,633,817	$ 3,278,251
7.	Actuarial value of assets	$ 1,501,235	$ 1,510,264
8.	Unfunded actuarial accrued liability (UAAL) (Item 6d - Item 7)	$ 1,132,582	$ 1,767,987
9.	Funding period	30 years	19.5 years
10.	Assumed payroll growth rate	3.00%	3.00%
11.	Employer Contribution requirement		
	a. UAAL amortization payment as % of pay	20.90%	36.41%
	b. Employer normal cost	8.53%	16.48%
	c. Contribution requirement (a + b)	29.43%	52.89%

Note: Dollar amounts in $000

[1] For both years, includes actual current receivable for actives who have entered into an obligation. For 2003, also includes assumed price for converting B service to A service for (i) 80% of current group B actives and (ii) all Group A members with convertible B service

Actuarial Present Value of Future Benefits

		July 1, 2004 (1)	July 1, 2003 (2)
1.	Active members		
	a. Retirement benefits	$ 1,414,343	$ 2,558,942
	b. Deferred termination benefits	82,601	126,488
	c. Refunds	16,686	18,602
	d. Death benefits	49,858	73,624
	e. Disability benefits	23,507	20,055
	f. Total	$ 1,586,995	$ 2,797,711
2.	Members in Pay Status		
	a. Service retirements	$ 1,132,649	$ 902,202
	b. Disability retirements	40,960	40,402
	c. Beneficiaries	93,509	94,153
	d. Total	$ 1,267,118	$ 1,036,757
4.	Inactive members		
	a. Vested terminations	$ 85,468	$ 78,131
	b. Nonvested terminations	2,571	913
	c. Total	$ 88,039	$ 79,044
5.	Total actuarial present value of future benefits	$ 2,942,152	$ 3,913,512

Note: Dollar amounts in $000

Analysis of Normal Cost

		July 1, 2004	July 1, 2003
		(1)	(2)
1.	Gross normal cost rate		
	a. Retirement benefits	8.93%	16.00%
	b. Deferred termination benefits	1.57%	2.18%
	c. Refunds	0.69%	0.78%
	d. Disability benefits	0.51%	0.51%
	e. Death benefits	0.62%	0.69%
	f. Total	12.32%	20.16%
2.	Less: member contribution rate		
	a. Present Value of Employee Contributions	$ 92,888	$ 97,131
	b. Present value of future pay	$ 2,453,402	$ 2,637,853
	c. Effective member contribution rate (2a/2b)	(3.79%)	(3.68%)
3.	Employer normal cost rate (Item 1f - Item 2c)	8.53%	16.48%

Note: Dollar amounts in $000

Calculation of Total Actuarial Gain or Loss

1. Unfunded actuarial accrued liability (UAAL) as of July 1, 2003	$	1,767,987
2. Benefit Changes		(709,944)
3. Revised UAAL as of July 1, 2003 (1+2)	$	1,058,043
4. Total normal cost for year		44,170
5. Contributions during year ending June 30, 2004		(83,497)
6. Interest on UAAL for one year		89,934
7. Interest on Item 4 and Item 5 for one-half year		(1,637)
8. Expected UAAL as of July 1, 2004 (3+4+5+6+7)	$	1,107,012
9. Actual UAAL as of July 1, 2004	$	1,132,582
10. Actuarial gain/(loss) for the period (8 – 9)	$	(25,570)
SOURCE OF GAINS/(LOSSES)		
11. Asset gain/(loss) (See Table 11)	$	(64,132)
12. Assumption changes		(9,974)
13. Total liability gain/(loss) for the period (10-11-12)	$	48,536

Note: Dollar amounts in $000

Change in Calculated Contribution Rate Since the Prior Valuation

1.	Calculated Contribution Rate as of July 1, 2003		52.89%
2.	Benefit Changes		(27.96%)
4.	Revised July 1, 2003 Calculated Rate		24.93%
5.	Change in Contribution Rate During Year		
	a. Change in Employer Normal Cost	0.14%	
	b. Assumption changes	1.60%	
	c. Recognition of prior asset losses (gains)	1.44%	
	d. Actuarial (gain) loss from current year asset performance	(0.39%)	
	e. Actuarial (gain) loss from liability sources	(0.14%)	
	f. Impact of City contributing less than actual cost of plan	0.58%	
	g. Effect of Payroll not growing at Payroll Growth Rate	1.27%	
	h. Total Change		4.50%
6.	Calculated Rate as of July 1, 2004		29.43%

Near Term Outlook

Valuation as of July 1,	Projected Covered Compensation for Next Year	Unfunded Actuarial Accrued Liability (UAAL, in 000s)	Funded Ratio	Calculated Contribution Rate	Funding Period (Years)[3]	Funded Ratio Using MVA	Employer Contributions	Employee Contributions	Benefit Payments and Refunds
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2004	$ 379,095	$ 1,132,582	57.0%	29.4%	30.0	53.9%	$ 360,238 [1]	$ 14,353	$ 196,139
2005	392,411	968,085	64.1%	25.7%	30.0	63.9%	64,081 [2]	15,240	157,809
2006	403,708	1,054,523	62.5%	26.7%	30.0	63.6%	67,217 [2]	16,040	169,426
2007	415,233	1,096,866	62.5%	26.3%	30.0	63.3%	110,955	16,846	178,209
2008	427,090	1,083,575	64.4%	25.6%	30.0	64.4%	112,144	17,662	187,824
2009	439,198	1,094,537	65.3%	25.3%	30.0	65.3%	112,223	18,500	197,225
2010	451,388	1,107,334	66.2%	25.3%	29.0	66.2%	114,134	19,350	208,212
2011	463,819	1,120,174	67.0%	25.3%	28.0	67.0%	117,262	20,222	220,068
2012	476,731	1,131,840	67.8%	25.3%	27.0	67.8%	120,511	21,120	232,532
2013	489,969	1,142,155	68.6%	25.3%	26.0	68.6%	123,817	22,035	245,811
2014	503,825	1,150,986	69.3%	25.2%	25.0	69.3%	127,284	22,977	259,105

* These projections are based on the benefit provisions in effect for the July 1, 2004 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 the HMEPS included a 15.33% employer contribution rate for FY 2005 and the contribution of a pension obligation note from the City to HMEPS valued at approximately $300 million as of November 2004.
2 The agreement between the City and the HMEPS included a 16.33% employer contribution rate for FY 2006 and 16.65% for FY2007.
3 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

Statement of Plan Net Assets

	July 1, 2004 (1)		July 1, 2003 (2)	
A. ASSETS				
1. Current Assets				
a. Cash and short term investments				
1) Cash on hand	$	2,691	$	7,153
2) Short term investments		53,978		35,532
b. Accounts Receivable				
1) Sale of investments		7,496		6,290
2) Other		18,310		21,458
c. Total Current Assets	$	82,475	$	70,433
2. Long Term Investments				
a. US. Government securities	$	88,750	$	96,536
b. Corporate bonds		100,820		89,241
c. Capital stocks		552,420		439,387
d. Commingled Funds		291,694		225,694
e. LP's, real estate mortgages		350,343		400,190
f. Total long term investments	$	1,384,027	$	1,251,048
3. Other Assets				
a Collateral on securities lending	$	109,440	$	84,300
b. Furniture, fixtures and equipment, net		796		737
c. Total other assets	$	110,236	$	85,037
4. Total Assets	$	1,576,738	$	1,406,518
B. LIABILITIES				
1. Current Liabilities				
a. Amounts due on asset purchases	$	45,570	$	53,716
b. Accrued liabilities		3,003		2,312
c. Collateral on securities lending		109,440		84,300
2. Total Liabilities		158,013		140,328
3. Net Assets Held in Trust	$	1,418,725	$	1,266,190
C. ASSET ALLOCATION FOR CASH & LONG TERM INVESTMENTS				
1. Cash		5.6%		5.3%
2. Fixed Income		12.9%		14.1%
3. Real Estate Mortgages		23.9%		30.3%
4. Equities		37.7%		33.2%
5. Commingled Funds		19.9%		17.1%
6. Total		100.0%		100.0%

Note: Dollar amounts in $000

Reconciliation of Plan Net Assets

			Year Beginning	
			July 1, 2004	July 1, 2003
			(1)	(2)
1.	Market value of assets at beginning of year		$ 1,266,190	$ 1,271,691
2.	Revenue for the year			
	a.	Contributions		
		i. Member contributions	$ 26,189	$ 23,762
		ii. Employer contributions	57,308	40,622
		iii. Total	$ 83,497	$ 64,384
	b.	Net investment income		
		i. Interest	$ 9,514	$ 6,868
		ii. Dividends	15,134	7,335
		iii. Earnings from LP's and real estate trusts	19,464	7,690
		iv. Net appreciation (depreciation) on investments	189,465	16,981
		v. Net proceeds from lending securities	352	376
		vi. Less investment expenses	(6,568)	(5,320)
		vii. Other	726	114
	c.	Total revenue	$ 311,584	$ 98,428
3.	Expenditures for the year			
	a.	Refunds	$ 635	$ 475
	b.	Benefit payments	153,202	98,789
	c.	Administrative and miscellaneous expenses	5,212	4,665
	d.	Total expenditures	$ 159,049	$ 103,929
4.	Increase in net assets (Item 2d - Item 3d)		$ 152,535	$ (5,501)
5.	Market value of assets at end of year (Item 1 + Item 4)		$ 1,418,725	$ 1,266,190

Note: Dollar amounts in $000

Calculation of Excess Investment Income

Item	Year Ending June 30, 2004	2002	2001	2000
(1)	(2)	(3)	(4)	(5)
1. Market value of assets at beginning of year	$ 1,266,190	$ 1,271,691	$ 1,407,516	$ 1,483,809
2. Net external cash flow during the year	(70,340)	(34,880)	(24,354)	(8,774)
3. Market value of assets at end of year	1,418,725	1,266,190	1,271,691	1,407,516
4. Actual investment income during the year based on market value: (3) - (2) - (1)	$ 222,875	$ 29,379	$ (111,471)	$ (67,519)
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	107,626	108,094	119,639	126,124
b. Net external cash flow	(2,928)	(1,452)	(1,014)	(365)
c. Total: (a) + (b)	104,698	106,642	118,625	125,759
7. Excess investment income for the year: (4) - (6)	$ 118,177	$ (77,263)	$ (230,096)	$ (193,278)

Note: Dollar amounts in $000

Development of Actuarial Value of Assets

	July 1, 2004 (1)	July 1, 2003 (2)
1. Excess (Shortfall) of invested income for current and previous three years		
a. Current year	$ 118,177	$ (77,263)
b. Current year - 1	(77,263)	(230,096)
c. Current year - 2	(230,096)	(193,278)
d. Current year - 3	(193,278)	165,524
e. Total for four years	$ (382,459)	$ (335,112)
2. Deferral of excess (shortfall) of invested income		
a. Current year (80%)	94,542	(61,810)
b. Current year - 1 (60%)	(46,358)	(138,058)
c. Current year - 2 (40%)	(92,038)	(77,311)
d. Current year - 3 (20%)	(38,656)	33,105
e. Total deferred for year	$ (82,510)	$ (244,074)
3. Market value of assets at end of year	$ 1,418,725	$ 1,266,190
4. Actuarial value of assets at end of year: (3) - (2e)	$ 1,501,235	$ 1,510,264

Note: Dollar amounts in $000

Estimation of Investment Return

Item	Market Value	Actuarial Value
(1)	(2)	(3)
1. Assets as of July 1, 2003 (A)	$ 1,266,190	$ 1,510,264
2. Contributions during FY04	83,497	83,497
3. Benefit payments made during FY04	153,202	153,202
4. Refunds of contributions during FY04	635	635
5. Expenses during FY04	5,212	5,212
6. Investment return during FY04	228,087	66,523
7. Assets as of July 1, 2004 (B): (1 + 2 - 3 - 4 - 5 + 6)	1,418,725	1,501,235
8. Approximate rate of return on average invested assets		
a. Net investment income (6 - 5 = I)	222,875	61,311
b. Estimated return based on (2I/(A + B - I))	18.10%	4.16%

Note: Dollar amounts in $000

Investment Experience Gain or Loss

Item	Valuation as of July 1, 2004	Valuation as of July 1, 2003
(1)	(2)	(3)
1. Actuarial assets, prior valuation	$ 1,510,264	$ 1,519,717
2. Total contributions since prior valuation	$ 83,497	$ 64,384
3. Benefits and refunds since prior valuation	$ (153,837)	$ (99,264)
4. Assumed net investment income at 8.5%		
a. Beginning assets	$ 128,372	$ 129,176
b. Contributions	3,476	2,681
c. Benefits and refunds paid	(6,405)	(4,133)
d. Total	$ 125,443	$ 127,724
5. Expected actuarial assets (Sum of Items 1 through 4)	$ 1,565,367	$ 1,612,561
6. Actual actuarial assets, this valuation	$ 1,501,235	$ 1,510,264
7. Asset gain (loss) since prior valuation (Item 6 - Item 5)	$ (64,132)	$ (102,297)

Note: Dollar amounts in $000

History of Investment Returns

For Fiscal Year Ending (1)	Market Value (2)	Actuarial Value (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%
July 30, 2004	18.10%	4.16%

Historical Solvency Test

Valuation Date	Aggregated Accrued Liabilities for Active Members Contributions	Retirees Beneficiaries and Vested Terminations*	Members (City Financed Portion)	Actuarial Value of Assets	by Reported Assets (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%

Note: Dollar amounts in $000
* 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%

Note: Dollar amounts in $000

Historical City Contribution

Valuation Date (1)	Calculated Contribution Rate* (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	N/A
July 1, 2004	29.43	July 1, 2005 through June 30, 2006	N/A

* Rate determined by the actuarial valuation is for the fiscal year beginning on the July 1st

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*	13,764	42.8	9.8	$394,919	$28,692	9.8%
1999*	13,286	42.9	9.8	$396,617	$29,852	4.0%
2000*	13,126	43.7	10.3	$421,591	$32,119	7.6%
2001*	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%)

Note: Dollar amounts in $000
* Excludes DROP participants

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

Note: Dollar amounts in $000

Membership Data

	July 1, 2004 (1)	July 1, 2003 (2)
1. Active members		
a. Number	11,856	12,120
b. Number vested	8,208	8,818
c. Total payroll supplied by HMEPS	$ 366,189,957	$ 390,314,471
d. Average salary	30,886	32,204
e. Average age	45.1	45.2
f. Average service	10.3	11.2
2. Inactive participants (counts)		
a. Vested	2,434	2,386
b. NonVested	1,043	564
3. Service retirees		
a. Number	4,952	4,319
b. Total annual benefits	$ 92,766,274	71,246,439
c. Average annual benefit	18,733	16,496
d. Average age	66.6	67.7
4. Disabled retirees		
a. Number	495	494
b. Total annual benefits	$ 3,832,094	3,714,827
c. Average annual benefit	7,742	7,520
d. Average age	60.3	60.1
5. Beneficiaries and spouses		
a. Number	1,431	1,402
b. Total annual benefits	$ 10,485,436	9,558,072
c. Average annual benefit	7,327	6,817
d. Average age	68.6	68.7

Distribution of Active Members by Age and by Years of Service Contributory Plan

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	130	71	44	38	9	1							293
	$9,547	$20,815	$19,892	$19,726	$20,361	$20,013							$15,519
25-29	185	100	75	78	53	39	2						532
	$12,215	$25,940	$24,170	$24,449	$22,711	$25,124	$33,870						$20,347
30-34	174	102	92	102	61	110	50	1					692
	$12,944	$27,828	$28,799	$26,399	$27,328	$30,343	$28,607	$29,749					$24,419
35-39	152	76	83	96	80	172	177	52					888
	$12,475	$28,404	$31,740	$27,127	$29,865	$31,738	$33,062	$32,998					$27,826
40-44	147	110	92	115	83	225	243	164	159	7			1,345
	$13,443	$29,484	$29,916	$26,993	$31,854	$33,897	$34,911	$34,600	$33,773	$30,618			$30,549
45-49	125	84	63	102	68	227	265	223	297	105			1,559
	$12,933	$33,367	$30,467	$27,909	$28,246	$35,166	$39,155	$39,278	$36,773	$34,518			$33,849
50-54	105	81	50	70	60	206	281	179	184	112	28	1	1,357
	$15,175	$35,784	$36,151	$31,415	$32,470	$38,414	$39,292	$40,621	$36,406	$42,401	$39,520	$51,329	$36,314
55-59	55	49	29	65	51	178	205	133	124	69	29	4	991
	$17,501	$32,872	$34,377	$31,910	$34,574	$37,718	$41,278	$43,207	$41,054	$40,073	$45,507	$37,531	$37,998
60-64	29	27	24	29	26	119	121	65	58	26	8	7	539
	$11,939	$40,273	$33,595	$35,833	$29,547	$33,263	$38,563	$41,940	$39,878	$46,025	$47,983	$38,401	$36,290
65 & Over	6	9	8	8	5	39	33	21	13	8	4	7	161
	$15,217	$38,973	$40,802	$40,816	$33,902	$36,709	$38,175	$43,502	$34,400	$40,755	$39,440	$43,815	$37,933
Total	1,112	709	560	703	496	1,316	1,377	838	835	327	69	19	8,361
	$12,833	$29,707	$29,609	$27,800	$29,550	$34,516	$37,501	$39,185	$36,935	$39,374	$43,013	$40,893	$31,512

Average:	Age:	45.11	Number of participants:	Fully vested:	4,781	Males:	4,685
	Service:	9.57		Not Vested:	3,580	Females:	3,676

Distribution of Active Members by Age and by Years of Service NonContributory Plan

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					1 $16,702	6 $22,046							7 $21,282
25-29					16 $23,443	106 $23,376							122 $23,385
30-34					16 $28,160	234 $25,140	87 $26,081	3 $26,073					340 $25,531
35-39					12 $24,937	264 $26,736	246 $28,447	76 $27,276	1 $22,803				599 $27,464
40-44					7 $32,919	220 $27,769	232 $30,644	117 $28,898	76 $29,254				652 $29,223
45-49					7 $23,198	205 $29,775	229 $31,103	109 $33,214	81 $30,447	33 $31,896			664 $30,916
50-54					1 $18,809	172 $29,301	177 $29,623	93 $31,999	56 $30,256	21 $32,247	4 $28,110		524 $30,080
55-59					6 $24,705	101 $33,014	121 $31,248	66 $34,015	51 $34,011	9 $44,954	1 $32,151	2 $30,811	357 $32,889
60-64					1 $15,111	41 $28,335	73 $33,486	30 $34,997	20 $34,108	3 $59,137		1 $29,579	169 $32,902
65 & Over					1 $39,731	11 $34,524	27 $27,275	12 $36,202	8 $35,393	1 $19,728	1 $45,564		61 $31,783
Total					68 $25,828	1,360 $27,706	1,192 $29,953	506 $31,340	293 $31,080	67 $34,798	6 $31,693	3 $30,400	3,495 $29,390

Average:	Age:	45.03	Number of participants:	Fully vested:	3,427	Males:	1,751
	Service:	12.10		Not Vested:	68	Females:	1,744

Distribution of 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	130	71	44	38	10	7							300
	$9,547	$20,815	$19,892	$19,726	$19,995	$21,755							$15,654
25-29	185	100	75	78	69	145	2						654
	$12,215	$25,940	$24,170	$24,449	$22,881	$23,846	$33,870						$20,914
30-34	174	102	92	102	77	344	137	4					1,032
	$12,944	$27,828	$28,799	$26,399	$27,501	$26,804	$27,003	$26,992					$24,785
35-39	152	76	83	96	92	436	423	128	1				1,487
	$12,475	$28,404	$31,740	$27,127	$29,222	$28,709	$30,378	$29,600	$22,803				$27,680
40-44	147	110	92	115	90	445	475	281	235	7			1,997
	$13,443	$29,484	$29,916	$26,993	$31,937	$30,867	$32,827	$32,226	$32,311	$30,618			$30,116
45-49	125	84	63	102	75	432	494	332	378	138			2,223
	$12,933	$33,367	$30,467	$27,909	$27,775	$32,608	$35,422	$37,288	$35,417	$33,891	#DIV/0!		$32,973
50-54	105	81	50	70	61	378	458	272	240	133	32	1	1,881
	$15,175	$35,784	$36,151	$31,415	$32,247	$34,267	$35,556	$37,673	$34,971	$40,798	$38,094	$51,329	$34,577
55-59	55	49	29	65	57	279	326	199	175	78	30	6	1,348
	$17,501	$32,872	$34,377	$31,910	$33,536	$36,015	$37,555	$40,159	$39,001	$40,636	$45,062	$35,291	$36,645
60-64	29	27	24	29	27	160	194	95	78	29	8	8	708
	$11,939	$40,273	$33,595	$35,833	$29,012	$32,000	$36,653	$39,748	$38,399	$47,381	$47,983	$37,298	$35,481
65 & Over	6	9	8	8	6	50	60	33	21	9	5	7	222
	$15,217	$38,973	$40,802	$40,816	$34,874	$36,228	$33,270	$40,848	$34,778	$38,419	$40,665	$43,815	$36,243
Total	1,112	709	560	703	564	2,676	2,569	1,344	1,128	394	75	22	11,856
	$12,833	$29,707	$29,609	$27,800	$29,102	$31,055	$33,999	$36,231	$35,414	$38,596	$42,107	$39,462	$30,886

Average:	Age:	45.09	Number of participants:	Fully vested:	8,208	Males:	6,436
	Service:	10.32		Not Vested:	3,648	Females:	5,420

Summary of Actuarial Assumptions and Methods

The following methods and assumptions were adopted for the July 1, 2004, actuarial 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 Disable 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

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

Probability of Decrement Due to Withdrawal – Female Members

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

Rates of Decrement Due to Disability

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

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

Service Connected Deaths and Disabilities assumed to be 10% of decrement

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 an active members included birth date, sex, date of credited service, salary paid during last fiscal year, hours worked by the employee, and employee contribution account balance. 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 25.

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 the System.

Summary of Plan Provisions

1. Covered Members

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

Persons who become employees of the City of Houston after September 1, 1981, and elected officials of the City of Houston who assumed office after September 1, 1981, 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 are or become Director of a City Department, Chief Financial Executive, or Executive Director of the Pension System on or after September 1, 1999 and prior to January 1, 2005 may participate in Group C. Effective January 1, 2005, all Group C participation will cease and all Group C participants will become Group A participants. Accruals earned by Group C participants prior to January 1, 2005 will be retained, but all future accruals will be 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 Group C, all services and work performed after September 1, 1943 must have been accompanied by corresponding contributions to the Pension System by the employee or legally authorized repayments must have been made.

Credited service for 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 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 August 1, 2000:

The earliest of:
age 50 and 25 years of Credited Service
age 55 and 20 years of Credited Service .
age 60 and 10 years of Credited Service .
age 62 and 5 years of Credited Service
age 65 (Group C only)

On or after August 1, 2000 (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
age 65 (Group C only)

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. Immediate vesting for Group C.

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.

Group C: Double Group A benefit

8. Nonservice-Connected Disability Retirement

a. Eligibility 5 years of Credited Service.

b. Benefit Accrued normal retirement benefit payable immediately.

9. Preretirement 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.

12. Contribution Rates.

a. Members — 4% of salary only for the Group A and Group C 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

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 — 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 the System's 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 will be increased effective February 1 each year 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 will be increased effective February 1 each year 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 3.0%, 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. 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

There were several changes to the benefit provisions since the prior valuation. Please see the Benefit Provisions subsection of the Discussion section of this report.