## AUSTIN POLICE RETIREMENT SYSTEM <br> ACTUARIAL VALUATION <br> AS OF DECEMBER 31, 2012

July 12, 2013
Mr. Sam Jordan, CEO
Austin Police Retirement System
2520 South IH 35, Suite 100
Austin, TX 78704
Re: Austin Police Retirement System
Dear MIr. Jordan:
We are pleased to present to the Board this report of the annual actuarial valuation of the Austin Police Retirement System. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year(s).

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects applicable laws and regulations issued to date at the state and federal level. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience.

In conducting the valuation, we have relied on personnel, plan design, financial reports, and asset information supplied by the City of Austin, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The undersigned is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster \& Foster Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Austin, nor does anyone at Foster \& Foster Inc. act as a member of the Board of Trustees of the Austin Police Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact me at 239-433-5500.

Respectfully submitted,

Foster \& Foster Inc.
$B y:$


BRH/lke

## Enclosures

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the Austin Police Retirement System, performed as of December 31, 2012, has been completed and the results are presented in this Report.

The pension costs, compared with those developed in the December 31, 2011 actuarial valuation report, are as follows:

| Valuation Date | $\underline{12 / 31 / 12}$ | $\underline{12 / 31 / 11}$ |
| :--- | :---: | :---: |
| Normal Cost <br> $\%$ of Total Annual Payroll | $21.743 \%$ | $22.318 \%$ |
| Expected Member Contributions <br> \% of Total Annual Payroll | $13.000 \%$ | $13.000 \%$ |
| City Normal Cost Rate <br> \% of Total Annual Payroll | $8.743 \%$ | $9.318 \%$ |
| Funding Period To Amortize UAAL <br> (expressed in number of years) | 29.4 | 25.2 |

As can be seen above, the funding period required to amortize the Unfunded Actuarial Accrued Liability has increased from 25.2 to 29.4 years since the prior valuation. This increase is the result of net unfavorable actuarial experience over the past year. The primary component of unfavorable experience included a $-0.5 \%$ investment return (Actuarial Asset Basis) that fell significantly short of the $8.0 \%$ assumption. Please refer to the Gain/Loss Analysis on Page 12 for additional details.

In conjunction with this valuation report, the Board of Trustees has approved two changes to the actuarial assumptions, as described on the following page. The impact associated with implementing these changes is displayed in the comparative summary section of this report.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and answer any pending questions concerning its contents.

Respectfully submitted,
FOSTER \& FOSTER INC.

By:


## CHANGES SINCE PRIOR REPORT

## 1. Benefit Provisions

There have been no changes in benefits since the prior valuation.

## 2. Actuarial Assumptions/Methods

As approved by the Board of Trustees, there have been two changes to the actuarial assumptions since the prior valuation, as follows:

- The mortality rate assumption has been amended from the RP-2000 Mortality Table projected to 2014 to the RP-2000 Mortality Table without projection of future mortality improvements. While major mortality studies of the general population have shown mortality rates becoming lower over extended periods of time, this may not necessarily be the case for public safety workers. Based upon a study that we performed of the experience of 650 retirement plans for public safety workers, our results showed that there was a $10 \%$ margin for future mortality improvements using the RP2000 Mortality Table with static rates.
- The payroll growth assumption utilized to amortize the Unfunded Actuarial Accrued Liability was reduced from $4.0 \%$ to $3.5 \%$ per year.


## Valuation Date <br> A. Participant Data

12/31/2012

## Actives

Service Retirees + DROP
Beneficiaries
1,709

QDRO
Disability Retirees
Terminated Vested
Total
Total Annual Payroll
Payroll Under Assumed Ret. Age
Annual Rate of Payments to:

## Service Retirees + DROP <br> Beneficiaries <br> QDRO <br> Disability Retirees <br> Terminated Vested

B. Assets

Actuarial Value
Market Value
C. Liabilities

Present Value of Benefits
Active Members
Retirement Benefits
Vested Benefits
Death Benefits
Disability Benefits
Refund of Contributions
Service Retirees + DROP
Beneficiaries
QDRO
Disability Retirees
Terminated Vested
Total

558,475,643
538,295,885
$141,561,047$
$35,193,018$
$1,916,217$
355,420
136,509
601,903
$141,561,047$
$35,193,018$
$1,916,217$
355,420
136,509
601,903
$141,561,047$
$35,193,018$
$1,916,217$
355,420
136,509
601,903
$141,561,047$
$35,193,018$
$1,916,217$
355,420
136,509
601,903
44
25
4 23

2,380
141,561,047
141,561,047
141,561,047
134,843,931
141,561,047 134,843,931

35,193,018
31,561,485
1,916,217
1,897,411 355,420 323,121
136,509 136,509
601,903
416,942
$763,007,423$
$1,576,678$
$14,023,341$
$15,479,539$
$3,177,242$
$379,302,484$
$15,910,016$
$3,736,704$
$1,589,185$
$1,798,204$
$1, \overline{199,600,816} \quad 1, \overline{223,227,726}$

751,002,491
781,930,154
1,757,624
11,244,456 11,264,236
15,713,284 15,806,982
3,178,230 3,090,675
386,090,668 343,627,645
16,203,614 16,435,130
3,775,620 3,498,187
1,608,211 1,618,819
1,854,278 1,332,205
1,149,433,994

| Valuation Date | 12/31/2012 | 12/31/2012 | 12/31/2011 |
| :---: | :---: | :---: | :---: |
| C. Liabilities - (Continued) |  |  |  |
| Present Value of Future Salaries | 1,682,723,298 | 1,685,659,353 | 1,606,400,949 |
| Normal Cost (Entry Age Normal) |  |  |  |
| Retirement Benefits | 27,412,662 | 28,098,790 | 26,870,016 |
| Vested Benefits | 129,014 | 133,318 | 140,584 |
| Death Benefits | 628,536 | 509,947 | 499,244 |
| Disability Benefits | 933,921 | 946,487 | 938,893 |
| Refund of Contributions | 457,658 | 457,738 | 456,152 |
| Total Normal Cost | 29,561,791 | $\overline{30,146,280}$ | 28,904,889 |
| Present Value of Future Normal Costs | 343,023,990 | 350,521,601 | 334,175,218 |
| Actuarial Accrued Liability |  |  |  |
| Retirement Benefits | 439,356,351 | 449,616,886 | 434,971,886 |
| Vested Benefits | 721,723 | 745,253 | 822,539 |
| Death Benefits | 7,015,678 | 5,565,899 | 5,721,281 |
| Disability Benefits | 6,366,009 | 6,465,138 | 6,422,920 |
| Refund of Contributions | 780,472 | 780,558 | 808,164 |
| Inactives | 402,336,593 | 409,532,391 | 366,511,986 |
| Total Actuarial Accrued Liability | $\overline{856,576,826}$ | $\overline{872,706,125}$ | $\overline{815,258,776}$ |
| Unfunded Actuarial Accrued Liability (UAAL) | 298,101,183 | 314,230,482 | 261,556,800 |
| D. Actuarial Present Value of Accrued Benefits |  |  |  |
| Vested Accrued Benefits |  |  |  |
| Inactives | 402,336,593 | 409,532,391 | 366,511,986 |
| Actives | 138,294,726 | 143,244,252 | 137,924,766 |
| Member Contributions | 129,963,192 | 129,963,192 | 121,671,207 |
| Total | 670,594,511 | 682,739,835 | 626,107,959 |
| Non-vested Accrued Benefits | 21,034,476 | 21,429,715 | 16,899,693 |
| Total Present Value Accrued Benefits | $\overline{691,628,987}$ | $\overline{704,169,550}$ | $\overline{643,007,652}$ |

Valuation Date 12/31/2012 $\quad 12 / 31 / 2012$ 12/31/2011
E. Pension Cost
Normal Cost (with interest)\% of Total Annual Payroll*21.74322.17222.318
Expected Member Contributions \% of Total Annual Payroll* ..... 13.000

$$
13.000
$$ ..... 13.000

City Normal Cost Rate \% of Total Annual Payroll*

$$
8.743
$$

$$
9.172
$$9.318

Funding Period to Amortize UAAL ** 29.4 years 31.2 years ..... 25.2 years
F. 30-Year Funding Cost
Normal Cost (with interest)\% of Total Annual Payroll*21.74322.17222.318
Payment Required to Amortize
Unfunded Actuarial Accrued
Liability over 30 years\% of Total Annual Payroll*12.65512.61711.025
Total 30-Year Funding Cost\% of Total Annual Payroll*

$$
34.789
$$33.343

* Contributions developed as of 12/31/12 are expressed as a percentage of total annual payroll at 12/31/12 of $\$ 141,561,047$ and include $0.025 \%$ of payroll for assumed additional administrative expenses for participation in the Proportionate Retirement Program
** The period required to amortize the UAAL was calculated based on the City's currently scheduled annual contribution rate to the Fund of $21.63 \%$ of total payroll, less the calculated contribution rate required to fund the Retiree Death Benefit Fund

| Valuation Date | 12/31/2012 | 12/31/2012 | 12/31/2011 |
| :---: | :---: | :---: | :---: |
| G. Retiree Death Benefit Fund * |  |  |  |
| Present Value of Benefits |  |  |  |
| Active Members | 1,078,255 | 983,179 | 973,446 |
| Retired and Terminated Vested Members | 1,768,327 | 1,647,550 | 1,489,705 |
| Total | 2,846,582 | 2,630,729 | 2,463,151 |
| Present Value of Future Normal Costs | 473,410 | 431,731 | 426,096 |
| Actuarial Accrued Liability | 2,373,172 | 2,198,998 | 2,037,055 |
| Asset Value of Fund | 601,764 | 601,764 | 488,051 |
| Unfunded Actuarial Accrued Liability (UAAL) | 1,771,408 | 1,597,234 | 1,549,004 |
| Payment Required to Amortize |  |  |  |
| Unfunded Actuarial Accrued Liability |  |  |  |
| over 23 years (as of 12/31/12) |  |  |  |
| Normal Cost (with interest) |  |  |  |
| Total Required City Contribution Rate |  |  |  |
| Allocated to the Retiree Death Benefit Fund |  |  |  |
| * The Retiree Death Benefit Fund was established effective September 1, 2003. |  |  |  |
| The Fund operates as a separate account within the system that is used to advance fund and to pay the $\$ 10,000$ post-retirement lump sum death benefits for retirees |  |  |  |

## GAIN/LOSS ANALYSIS

a. Total Gain/(Loss)

1. UAAL, Beginning of Year ..... 261,556,800
2. Normal Cost Applicable for Year ..... 28,904,889
3. Interest on (1) and (2) ..... 23,236,935
4. Contributions During Year ..... 47,156,863
5. Interest on (4) ..... 1,849,987
6. Expected UAAL, End of Year: (1)+(2)+(3)-(4)-(5) ..... 264,691,774
7. Actual UAAL, End of Year (Before Assumption Change) ..... 314,230,482
Total Actuarial Gain/(Loss) ..... $(49,538,708)$
b. Gain/(Loss) on Asset́s
8. Actuarial Value of Assets (AVA), Beginning of Year ..... 553,701,976
9. Contributions Less Benefit Payments ..... 7,14, 526
10. Expected Investment Earnings ..... 44,576,559
11. Expected AVA, End of Year: (1)+(2)+(3) ..... 605,426,061
12. Actual Actuarial Value of Assets, End of Year ..... 558,475,643
Gain/(Loss) on Assets ..... $(46,950,4.18)$
c. Gain/(Loss) on Liabilities
13. Expected Actuarial Accrued Liability: $a(6)+b(4)$ ..... 870,117,835
14. Actual Actuarial Accrued Liability (Before Assumption Change) ..... 872,706,125
Gain/(Loss) on Liabilities ..... $(2,588,290)$

## ACTUARIAL ASSUMPTIONS AND METHODS

| Mortality Rates - All Lives | Current: RP-2000 Combined Healthy without projection - Sex Distinct. |
| :---: | :---: |
|  | Previous: RP-2000 Combined Healthy Mortality Table for males and females projected to 2014 -- Sex Distinct. |
| Interest Rate | 8.0\% per year, compounded annually, net of all expenses. |
| Payroll Growth | $3.5 \%$ (previously $4.0 \%$ ) per year for amortization of the Unfunded Actuarial Accrued Liability. |
| Administrative Expenses | 0.025\% of payroll added to Normal Cost. |
| PROP Investment Accounts | $75 \%$ retiring in DROP will elect to leave their lump sum in the System until age 60. Average annual rate credited to the PROP accounts will be $4.0 \%$. |
| Marital Status | $85 \%$ of actives are assumed to be married at time of benefit commencement Females are assumed to be 3 years younger than Males. |
| Funding Method | Entry Age Normal Actuarial Cost Method |
| Actuarial Asset Method | All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period. The asset value of the Retiree Death Benefit Fund is then subtracted to determine the Actuarial Value of Assets. |
| Retirement Rates | See following tables. |
| Termination Rates | See following tables. |
| Disability Rates | See following tables. 55\% of disablements are assumed to be service related. |
| Salary Increases | See following tables. |

## Pre-Retirement Death Payment Form

Married: Joint and 100\% to Survivor Single: $15-$ Year Certain and Life Annuity

Retirement Rates

| For Entry Ages Under 32 ${ }^{1}$ |  |  |  | For Entry Ages 33 and $\mathrm{Above}^{3}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| APRS Service | $22 \&$ Under | 23-27 | 28-32 | AGE | 33-37 | 38-42 | $\begin{aligned} & 43 \& \\ & \text { Over } \end{aligned}$ |
| 0-22 | 0.05 | 0.05 | 0.05 | 33-37 | 0.10 |  |  |
| 23 | 0.15 | 0.15 | 0.225 | 38-42 | 0.10 | 0.10 |  |
| 24 | 0.10 | 0.10 | 0.15 | 43-47 | 0.10 | 0.10 | 0.10 |
| 25 | 0.10 | 0.10 | 0.15 | 48 | 0.10 | 0.10 | 0.10 |
| 26 | 0.15 | 0.15 | 0.25 | 49 | 0.10 | 0.10 | 0.10 |
| 27 | 0.15 | 0.15 | 0.25 | 50 | 0.10 | 0.10 | 0.10 |
| 28 | 0.25 | 0.25 | 0.25 | 51 | 0.10 | 0.10 | 0.10 |
| 29 | 0.25 | 0.25 | 0.30 | 52 | 0.10 | 0.10 | 0.10 |
| 30 | 0.30 | 0.30 | 0.40 | 53 | 0.10 | 0.10 | 0.10 |
| 31 | 0.30 | 0.30 | 0.50 | 54 | 0.10 | 0.10 | 0.10 |
| 32 | 0.30 | 0.30 | $1.00^{2}$ | 55 | 0.20 | 0.10 | 0.10 |
| 33 | 0.30 | 0.30 |  | 56 | 0.25 | 0.10 | 0.10 |
| 34 | 0.40 | 0.40 |  | 57 | 0.30 | 0.10 | 0.10 |
| 35 | 0.40 | 0.50 |  | 58 | 0.35 | 0.10 | 0.10 |
| 36 | 0.40 | 0.50 |  | 59 | 0.50 | 0.10 | 0.10 |
| 37 | 0.50 | $1.00^{2}$ |  | 60 | 1.00 | 0.50 | 0.10 |
| 38 | 0.50 |  |  | 61 |  | 0.35 | 0.10 |
| 39 | 0.50 |  |  | 62 |  | 0.35 | 0.80 |
| 40 | 0.50 |  |  | 63 |  | 0.35 | 0.40 |
| 4.1 | 0.50 |  |  | 64 |  | 0.35 | 0.40 |
| 42 | $1.00^{2}$ |  |  | 65 |  | 1.00 | 1.00 |

${ }^{1}$ Rates are based on APRS service only and apply after a Member is eligible for retirement with combined APRS and Proportionate Retirement Program (PRP) service. Entry ages are determined based on APRS service only.
${ }^{2} 100 \%$ retirement rate will be effective at age 60 , if earlier.
${ }^{3}$ Rates are based on age and apply after a Member is eligible for retirement with combined APRS and PRP service. Entry ages are determined based on APRS service only.

## Termination Rates

| Combined Years of Service ${ }^{1}$ | Probability of Termination During Year |
| :---: | :---: |
| 0 | 0.05 |
| 1 | 0.02 |
| 2 | 0.02 |
| 3 | 0.02 |
| 4 | 0.02 |
| 5 | 0.02 |
| 6 | 0.02 |
| 7 | 0.02 |
| 8 | 0.02 |
| 9 | 0.02 |
| 10 | 0.01 |
| 11 | 0.01 |
| 12 | 0.05 |
| 13 | 0.05 |
| 14 | 0.05 |
| 15 \& Above | 0 |
| ${ }^{1}$ APRS service combined with Proportionate Retirement Program service. |  |
| Disability Rates |  |
| Age | Probability of Disablement During Year |
| 20 | 0.00014 |
| 22 | 0.00016 |
| 24 | 0.00018 |
| 26 | 0.00021 |
| 28 | 0.00025 |
| 30 | 0.00031 |
| 32 | 0.00040 |
| 34. | 0.00049 |
| 36 | 0.00054 |
| 38 | 0.00062 |
| 40 | 0.00092 |
| 42 | 0.00132 |
| 44 | 0.00173 |
| 46 | 0.00255 |
| 48 | 0.00334 |
| 50 | 0.00379 |
| 52 | 0.00404 |
| 54 | 0.00456 |
| 56 | 0.00532 |
| 58 | 0.00660 |
| 60 | 0.00911 |
| 62 \& Above | 0 |

## Salary Increases

Years of Service Increase in Salary ${ }^{1}$0

$$
18.0 \%
$$

$$
1
$$

$$
11.2
$$

2 ..... 5.8
3 ..... 0.9
4 ..... 0.9
5 ..... 7.1
6 ..... 0.5
7 ..... 0.5
8 ..... 0.5
9 ..... 7.1
10 ..... 0.3
11 ..... 0.3
12 ..... 0.3
13 ..... 7.1
14 ..... 0.2
15 ..... 7.2
16 ..... 0.2
17 ..... 0.1
18 ..... 0.1
19 ..... 0.1
20 ..... 0.1
21 0.1
22 ..... 0.1230.1
24 ..... 0.1
25 \& Above ..... 0.0
${ }^{1}$ Expected increases in salary as shown above are in addition to $4.0 \%$ increase per year due to general wage increases.

## VALUATION NOTES

Total Annual Payroll is the annual rate of pay as of the valuation date of all covered Members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.
(a) The normal cost accrual rate equals:
(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by
(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.
(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.
ASSETS MARKET VALUE
Cash and Cash Equivalents:
Short Term Investments13,177,323.38
Checking Account ..... 70,520.58Prepaid Expenses6,803.36
Total Cash and Equivalents ..... $13,254,647.32$
Receivable:
Member Contributions ..... 800,588.68
City Contributions ..... 1,332,056.40
Accrued Income ..... 2,460,299.56
Total Receivable ..... 4,592,944.64
Investments:
Partnership Interests ..... 53,051,133.00
Corporate Bonds ..... 25,603,358.00
Corporate Stocks ..... 177,933,688.81
29,935,866.00
International Government Securities ..... 39,489,181.31
Real Estate Interests ..... 144,152,958.00
Mutual Funds:Alternatives50,204,082.00
International ..... 0.00
Total Investments ..... $520,370,267.12$
Retiree Death Benefit Fund ..... 601,763.77
Net Fixed Assets ..... 578,687.35
TOTAL ASSETS ..... $539,398,310.20$
LIABILITIES AND NET ASSETS
Liabilities:
Payable:
Refunds ..... 43,471.02
Other ..... 457,190.07
Total Liabilities ..... 500,661.09
Net Assets ${ }^{1}$ ..... $538,897,649.11$
TOTAL LIABILITIES AND NET ASSETS ..... $539,398,310.20$

[^0]
# CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS 

December 31, 2012
Market Value Basis

## REVENUES

## Contributions:

Member 17,874,653.70
Buy-Back 660,214.00

City
City for Proportionate Retirement Program
27,757,746.37
City for Retiree Death Benefit
864,248.80
$145,415.98$

Total Contributions
$47,302,278.85$
Earnings from Investments Interest \& Dividends Miscellaneous Income
Net Realized Gain (Loss)
Unrealized Gain (Loss)
3,494,762.74
4,190,122.17
10,189,795.55

Total Earnings and Investment Gains
32,646,629.08

## EXPENDITURES

## Expenses:

Investment Related ${ }^{1} \quad 1,842,582.06$
Administrative
1,162,651.17
Total Expenses
$3,005,233.23$
Distributions to Members:
Benefit Payments
33,452,171.06
Lump Sum DROP and PROP Balances 5,695,738.64
Retiree Death Benefits
30,000.00
Termination Payments
$831,427.35$
Total Distributions 40,009,337.05
Change in Net Assets for the Year
$54,809,018.11$
Net Assets Beginning of the Year 484,088,631.00
Net Assets End of the Year 538,897,649.11
${ }^{1}$ Investment Related expenses include investment advisory, custodial and performance monitoring fees.

## ACTUARIAL ASSET VALUATION

December 31, 2012
Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20\% of the gain or loss is recognized. In the second year $40 \%$, in the third year $60 \%$, in the fourth year $80 \%$, and in the fifth year $100 \%$ of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return.


## Development of Investment Gain/Loss

| Market Value of Assets, including Retiree Death Benefit Fund, 12/31/2011 | $484,088,631$ |
| :--- | ---: |
| Contributions Less Benefit Payments | $7,292,942$ |
| Expected Investment Earnings ${ }^{*}$ | $39,013,196$ |
| Actual Net Investment Earnings | $47,516,076$ |
| 2013 Actuarial Investment Gain/(Loss) | $8,502,880$ |

*Expected Investment Earnings $=0.08$ * 484,088,631 + [(1 + 0.08) ^0.5-1] * 7,292,942

Development of Actuarial Value of Assets
Market Value of Assets, 12/31/2012

$$
\begin{array}{r}
538,897,649 \\
20,179,758 \\
\hline
\end{array}
$$

(Gains)/Losses Not Yet Recognized
Actuarial Value of Assets, 12/31/2012
(A) 12/31/2011 Actuarial Assets, including Retiree Death Benefit Fund:

554,190,027
(I) Net Investment Income:

1. Interest, Dividends and Misc Income 7,684,885
2. Realized Gains (Losses) 10,189,796
3. Change in Actuarial Value
$(17,388,722)$
4. Investment and Administrative Expenses
$(3,005,233)$
Total
$(2,519,274)$
(B) 12/31/2012 Actuarial Assets, including Retiree Death Benefit Fund:

559,077,407
Actuarial Assets Rate of Return $=21 /(A+B-1): \quad-0.5 \%$
Market Value of Assets Rate of Return: $\quad 9.7 \%$
12/31/2012 Limited Actuarial Assets, including Retiree Death Benefit Fund:
559,077,407
(Lesser of Actuarial Assets or $120 \%$ of Market Value, but no less than $80 \%$ of Market Value)
12/31/2012 Limited Net Actuarial Assets, excluding Retiree Death Benefit Fund: 558,475,643

# CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS 

December 31, 2012
Actuarial Asset Basis

## REVENUES

| Contributions: | REVENUES |
| :--- | ---: |
| Member | $17,874,653.70$ |
| Buy-Back | $660,214.00$ |
| City | $27,757,746.37$ |
| City for Proportionate Retirement Program | $864,248.80$ |
| City for Retiree Death Benefit | $145,415.98$ |
|  |  |
| Total Contributions |  |
| Earnings from Investments |  |
| Interest \& Dividends | $3,494,762.74$ |
| Miscellaneous Income | $4,190,122.17$ |
| Net Realized Gain (Loss) | $10,189,795.55$ |
| Change in Actuarial Value | $(17,388,721.69)$ |

Total Earnings and Investment Gains 485,958.77

## EXPENDITURES

## Expenses:

Investment Related ${ }^{1} \quad 1,842,582.06$
Administrative 1,162,651.17
Total Expenses ..... $3,005,233.23$
Distributions to Members:
Benefit Payments ..... 33,452,171.06
Lump Sum DROP and PROP Balances ..... 5,695,738.64
Retiree Death Benefits30,000.00Termination Payments831,427.35
Total Distributions ..... 40,009,337.05
Change in Net Assets for the Year ..... 4,773,667.34
Net Assets Beginning of the Year ..... 553,701,976.00
Net Assets End of the Year² ..... $558,475,643.34$

[^1]
## VALUATION PARTICIPANT RECONCILIATION

1. Active lives
a. Number in prior valuation 12/31/11 ..... 1679
b. Terminations
i. Vested (partial or full) with deferred ..... 5benefits
ii. Non-vested or full lump sum distribution ..... 23 received
c. Deaths
i. Beneficiary receiving benefits ..... 0
ii. No future benefits payable ..... 0
d. Disabled ..... 0
e. Retired ..... 45
f. DROP ..... 4
h. Continuing participants ..... 1602
i. New entrants ..... 107
j. Total active life participants in valuation ..... 1709
2. Non-Active lives (including beneficiaries receiving benefits)

|  | Service <br> Retirees, <br> DROP | Receiving <br> Death <br> Participants | Benefits | Receiving <br> Disability <br> Benefits | Receiving <br> QDRO <br> Benefits | Vested <br> Deferred |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Total |  |  |  |  |  |  |
| a. Number prior <br> valuation | 527 | 43 | 4 | 22 | 19 | 615 |
| b. In | 50 | 1 | 0 | 3 | 5 | 59 |
| c. Out | 2 | 0 | 0 | 0 | 1 | 3 |
| d. Number current <br> valuation | 575 | 44 | 4 | 25 | 23 | 671 |

## STATISTICAL DATA

12/31/2011 12/31/2012
Actives ..... 1,679 ..... 1,709
Average Current Age ..... 39.7 ..... 39.6
Average Age at Employment ..... 28.0 ..... 28.1
Average Past Service ..... 11.7 ..... 11.5
Average Annual Salary ..... \$79,636 ..... \$82,079

* Foster \& Foster does not have enough historical data to include data prior to 12/31/2011. We will add hisortical data going forward.


## AGE AND SERVICE DISTRIBUTION

## PAST SERVICE

| AGE | 0 | 1 | 2 | 3 | 4 | $5-9$ | $10-14$ | $15-19$ | $20-24$ | $25-29$ | $30+$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $15-19$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| $20-24$ | 13 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| $25-29$ | 43 | 49 | 12 | 26 | 12 | 34 | 0 | 0 | 0 | 0 | 0 | 176 |
| $30-34$ | 24 | 28 | 12 | 45 | 24 | 144 | 29 | 1 | 0 | 0 | 0 | 307 |
| $35-39$ | 12 | 9 | 7 | 21 | 10 | 89 | 176 | 26 | 0 | 0 | 0 | 350 |
| $40-44$ | 4 | 2 | 3 | 25 | 5 | 56 | 128 | 142 | 18 | 0 | 0 | 383 |
| $45-49$ | 0 | 1 | 2 | 19 | 3 | 29 | 58 | 72 | 81 | 11 | 0 | 276 |
| $50-54$ | 0 | 0 | 0 | 9 | 1 | 5 | 19 | 21 | 50 | 39 | 2 | 146 |
| $55-59$ | 0 | 0 | 0 | 5 | 2 | 0 | 4 | 4 | 16 | 13 | 5 | 49 |
| $60-64$ | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| $65+$ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Total | 96 | 94 | 37 | 151 | 57 | 357 | 414 | 266 | 165 | 63 | 9 | 1,709 |

## AUSTIN POLICE RETIREMENT SYSTEM SUMMARY OF BENEFIT PROVISIONS

Creditable Service
Earnings
Average Final Compensation
Member Contributions
City Contributions
20.63\% (as of 12/31/2011), scheduledto increase to $21.63 \%$ effective October1, 2012.
Normal Retirement
Date
Benefit
Form of Benefit
Earlier of age 62, age 55 and 20 yearsof Creditable Service, or 23 years ofCreditable Service, regardless of age(excluding military service).
3.20\% of Average Final Compensation times Creditable Service.Modified Cash Refund (optionsavailable).
Vesting
Schedule
Benefit Amount

100\% after 10 years of Creditable Service.

Member will receive his (her) accrued benefit payable at the Normal Retirement Date based upon actual Creditable Service prior to termination.

Non-vested members receive a refund of accumulated contributions.

## Disability

Eligibility

Benefit

Form of Benefit

## Death Benefits

Before Retirement Eligibility

After Retirement Eligibility

Retiree Death Benefit Fund

Total and permanent as determined by the Board. Members must have 10 years of Creditable Service if the disability was non-service related.

Accrued benefit at date of disability, but not less than 64\% of Average Final Compensation for service related disablements.

Modified Cash Refund (options available).

Twice the amount of the Member's accumulated contributions, subject to a minimum of $\$ 10,000$.

Member's accrued benefit as of the date of death, payable based on optional annuity selected either by Member or beneficiary. Additionally, a lump sum death benefit is payable in the amount of $\$ 10,000$.

Effective September 1, 2003, a separate fund (funded as a portion of the City's contribution rate) was established to pay post-retirement lump sum death benefits. Effective September 1, 2007, the amount of these benefits was increased to \$10,000.

Cost of Living Adjustment
Eligibility
Amount
Normal Retirement.
Determined by the actuary if providing a COLA (not to exceed $6.0 \%$ per year) will not impair financial stability of the System. Post-Retirement benefit increases will automatically be provided when the System's benefit accrual rate is increased.
Proportionate Retirement Program

Effective September 1, 2009, the System and the City began participating in the statewide Proportionate Retirement Program (PRP). Service in other participating public employee retirement systems can be combined with service in the System to satisfy the System's requirements for service retirement eligibility and for eligibility for vested benefits of a terminated Member. The participating systems, in addition to the System, are the six statewide systems, the City of Austin Employees' Retirement System, and the systems for the City of El Paso employees.

## Forward DROP

Eligibility

Participation Period
Rate of Return
Form of Distribution

## Retro DROP

Eligibility

Participation Period

Rate of Return
Form of Distribution

Completion of 23 years of Creditable Service, excluding military service.

Not to exceed 60 months.
$5.0 \%$, compounded annually.
Cash lump sum (or rollover to PROP account) at termination of employment.

Completion of 23 years of Creditable Service, excluding military service.

Upon election to retroactively enter DROP, the Retro DROP period will not exceed 36 months.
$5.0 \%$, compounded annually.
Cash lump sum (or rollover to PROP account) at termination of employment.

DISCLOSURE INFORMATION PER STATEMENT NO. 25 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

The schedule provided below has been prepared in accordance with the requirements of paragraph 37 of Statement No. 25 of the Governmental Accounting Standards Board.

SCHEDULE OF FUNDING PROGRESS

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) <br> - Entry Age (b) | Unfunded AAL (UAAL) (b-a) | Funded Ratio (a/b) | Covered Payroll (c) | UAAL as a \% of Covered Payroll ((b-a)/c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12/31/12 | 558,475,643 | 856,576,826 | 298,101,183 | 65.2\% | 141,561,047 | 210.6\% |
| 12/31/11 | 553,701,976 | 815,258,776 | 261,556,800 | 67.9\% | 134,843,931 | 194.0\% |
| 12/31/10 | 546,956,628 | 776,231,027 | 229,274,399 | 70.5\% | 127,731,696 | 179.5\% |
| 12/31/09 | 518,111,923 | 733,634,660 | 215,522,737 | 70.6\% | 122,928,285 | 175.3\% |
| 12/31/08 | 464,230,585 | 693,202,499 | 228,971,914 | 67.0\% | 122,735,216 | 186.6\% |
| 12/31/07 | 482,303,290 | 637,559,674 | 155,256,384 | 75.6\% | 111,809,091 | 138.9\% |

The schedule provided below has been prepared in accordance with the requirements of paragraph 38 of Statement No. 25 of the Governmental Accounting Standards Board.

SCHEDULE OF CONTRIBUTIONS FROM THE EMPLOYER AND OTHER CONTRIBUTING ENTITIES

| $\qquad$ | Annual Required Contribution (\% of Pay) | City Contribution (\% of Pay) | Percentage Contributed |
| :---: | :---: | :---: | :---: |
| 2012 | 19.698\% | 20.778\% | 105.5\% |
| 2011 | 19.360\% | 19.782\% | 102.2\% |
| 2010 | 20.291\% | 18.788\% | 92.6\% |
| 2009 | 16.776\% | 18.254\% | 108.8\% |
| 2008 | 17.846\% | 17.900\% | 100.3\% |
| 2007 | 18.775\% | 17.919\% | 95.4\% |

## DISCLOSURE INFORMATION PER STATEMENT NO. 27 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

ANNUAL PENSION COSTS AND RELATED INFORMATION

## THREE YEAR TREND INFORMATION

Annual

## Fiscal Year <br> Ending

Pension Cost (APC)

26,409,663
22,269,355
20,609,831

Percentage of APC Net Pension Contributed Obligation
$(7,039,826)$
9/30/2012
9/30/2011
9/30/2010
117.3\%
111.0\%
$(5,640,531)$
$(1,798,632)$

## DEVELOPMENT OF NET PENSION OBLIGATION (NPO)

| Fiscal Year Ending |  | 9/30/2010 | 9/30/2011 | 9/30/2012 |
| :---: | :---: | :---: | :---: | :---: |
| Annual Required |  |  |  |  |
| Contribution (ARC - \%) |  | 16.776\% | 16.776\% | 19.698\% |
| City Contribution Rate (\%) |  | 18.6300\% | 19.630\% | 20.630\% |
| Actual Contributions Made (\$) |  | 22,877,000 | 26,111,254 | 27,808,958 |
| City ARC (\$) |  | 20,600,352 | 22,314,946 | 26,552,635 |
| Interest on NPO |  | 37,483 | $(143,891)$ | $(451,242)$ |
| Adjustment to ARC |  | $(28,004)$ | 98,300 | 308,270 |
| Annual Pension Cost |  | 20,609,831 | 22,269,355 | 26,409,663 |
| Contributions Made |  | 22,877,000 | 26,111,254 | 27,808,958 |
| Increase in NPO |  | $(2,267,169)$ | $(3,841,899)$ | $(1,399,295)$ |
| NPO Beginning of Year |  | 468,537 | (1,798,632) | $(5,640,531)$ |
| NPO End of Year | 468,537 | $(1,798,632)$ | $(5,640,531)$ | $(7,039,826)$ |


[^0]:    ${ }^{1}$ Includes $\$ 601,764$ for the Retiree Death Benefit Fund. The Net Market Value of Assets excluding the Retiree Death Benefit Fund, is $\$ 538,295,885$.

[^1]:    ${ }^{1}$ Investment Related expenses include investment advisory, custodial and performance monitoring fees.
    ${ }^{2}$ Net Assets may be limited for actuarial consideration, and exclude the Retiree Death Benefit Fund of $\$ 601,764$.

