CITY OF JACKSONVILLE GENERAL EMPLOYEES PENSION PLAN

2007 ACTUARIAL VALUATION
MARCH 2008

ACTUARIAL VALUATION AS OF OCTOBER 1, 2007
FOR THE PLAN YEAR BEGINNING OCTOBER 1, 2008
TO DETERMINE CONTRIBUTIONS TO BE PAID
IN THE FISCAL YEAR BEGINNING OCTOBER 1, 2008

March 6, 2008
Board of Pension Trustees
City of Jacksonville General Employees Pension Plan
City of Jacksonville
117 West Duval Street
Jacksonville, Florida 32202

## Gentlemen:

This report presents the results of the 2007 actuarial valuation of the City of Jacksonville General Employees Pension Plan. Actuarial Concepts was retained by the Board to perform the actuarial valuation and prepare this report. This actuarial valuation was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate and, in our opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the Plan and/or paid from the Plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends that require a material increase in plan costs or required contribution rates have been taken into account in the valuation.

The use of the valuation results for financial or administrative purposes, other than those outlined in the report, is not recommended without an advance review by Actuarial Concepts of the appropriateness of such application.

Members of our staff are available to discuss this report and related issues.
Very truly yours,

## ACTUARIAL CONCEPTS

By:

TABLE OF CONTENTS
SECTION 1
KEY VALUATION RESULTS SUMMARY ..... 1-1
Key Results Synopsis ..... 1-1
Plan Changes ..... 1-2
Actuarial Assumptions Changes ..... 1-2
Plan Experience ..... 1-3
Plan Contribution Requirements ..... 1-5
City Contribution Requirements ..... 1-5
City Contribution Breakdown ..... 1-6
Current Funded Status—Projected Liabilities ..... 1-7
Funded Trend—Projected Liabilities ..... 1-8
Valuation Trend ..... 1-9
Participation Trend ..... 1-10
True Costs ..... 1-10
SECTION 2
ACTUARIAL VALUATION DEVELOPMENT ..... 2-1
Date and Basis of Valuation ..... 2-1
Member Reconciliation ..... 2-2
Valuation Financial Values ..... 2-3
Contribution Requirements ..... 2-4
Explanation of Financial Values ..... 2-4
Explanation of Contribution Requirements ..... 2-6
Derivation of Current UAAL ..... 2-7
SECTION 3
ANALYSIS OF VALUATION RESULTS ..... 3-1
Discussion of Valuation Results ..... 3-1
Valuation Comparison Table ..... 3-2
Development of Past Excess Contributions ..... 3-3
Effect of Amortization Policy on Contribution Requirements ..... 3-4
Comparison of Assumed and Actual Salary Increases ..... 3-5
Comparison of Assumed and Actual Investment Returns ..... 3-5
Calculation of the Actual Rate of Investment Return ..... 3-6
Additional Disclosures ..... 3-6

## SECTION 1

## KEY VALUATION RESULTS SUMMARY

The City of Jacksonville General Employees Pension Plan is part of the City of Jacksonville Retirement System and shares a common pension trust fund with the City of Jacksonville Corrections Officers Pension Plan. The Corrections Officers Pension Plan was separated from the General Employees Pension Plan effective October 1, 2004.

The 2007 valuation of the City of Jacksonville General Employees Pension Plan presents a statement of the estimated financial position of the Plan as of October 1, 2007. Information in the report provides bases for determining contribution requirements and current funded status.

## Key Results Synopsis

The major conclusions of the report are:

- The total Plan contribution for the 2007-2008 plan year is $\$ 48,944,898$; the required net City contribution after expected member contributions is $\$ 28,297,062$, based on the 2006 actuarial valuation.
- The total Plan contribution for the 2008-2009 plan year is $\$ 50,002,250$; the required net City contribution after expected member contributions is \$28,300,116.
- Investment returns (on an actuarial value of assets measurement basis) were more favorable than expected, at $11.43 \%$ versus the assumed $8.40 \%$.
- The Plan's funded position measured on a GASB reporting basis is $89.9 \%$.


## Plan Changes

There have been no changes to Plan provisions since the last valuation. Plan provisions are summarized in Appendix A.

## Actuarial Assumptions Changes

There have been no changes to actuarial assumptions since the last valuation. Actuarial assumptions, asset averaging and actuarial cost methods are summarized in Appendix B.

## Plan Experience

For the 12 months ended September 30, 2007, the actual experience under the Plan was more favorable than expected, resulting in a net actuarial gain. Much of this gain was attributable to investment returns more than expected, with a return measured on actuarial value of assets of $11.43 \%$ versus the valuation of assumption of $8.40 \%$. Offsetting this favorable experience were losses due to fewer retiree deaths than assumed and increased liabilities due to data adjustments close to $\$ 9$ million. Additional losses occurred due to new retirees having greater liabilities than expected of approximately $\$ 7$ million. There was an additional loss due to salary increases greater than expected, with an increase of $6.03 \%$ per year versus the valuation assumption of $5.71 \%$ per year.


Note that the 2002 salary increase rate was determined by prior actuary; for 2003 no valuation was performed; for 2004 no prior year database was available to make comparisons.

## Plan Contribution Requirements



## City Contribution Requirements



The 2006 valuation is used to determine contribution requirements for the 2007-08 plan year. The 2007 valuation determines contribution requirements for the 2008-09 plan year.

For the 2007-08 plan year, the required City contribution rate (assumed payable monthly) is $10.96 \%$ of expected 2007-08 total annual payroll, which determines a required amount of $\$ 28,297,062$ as determined by the 2006 valuation. The City may choose to meet some or all of its contribution requirements through deductions from the past excess contribution (PEC) account. (See development of PEC in Section 3.)

For the 2008-09 plan year, the required City contribution rate (assumed payable monthly) is $10.43 \%$ of expected 2008-09 total annual payroll (as projected by the 2007 valuation), which determines a required amount of $\$ 28,300,116$.

## City Contribution Breakdown

| 2008-2009 | Total |  | Member |  | Net City |  | Monthly Net City |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| City | \$ | 26,996,726 | \$ | 11,717,204 | \$ | 15,279,522 | \$ | 1,273,294 |
| JEA |  | 21,971,708 |  | 9,536,230 |  | 12,435,478 |  | 1,036,290 |
| JHA |  | 786,924 |  | 341,543 |  | 445,381 |  | 37,115 |
| JPA |  | 118,888 |  | 51,600 |  | 67,288 |  | 5,607 |
| JAA |  | 43,619 |  | 18,932 |  | 24,687 |  | 2,057 |
| FLA |  | 9,369 |  | 4,066 |  | 5,303 |  | 442 |
| MPO |  | 75,016 |  | 32,559 |  | 42,457 |  | 3,538 |
| SB |  | - |  | - |  | - |  | - |
| TOTAL | \$ | 50,002,250 | \$ | 21,702,134 | \$ | 28,300,116 | \$ | 2,358,343 |

## Current Funded Status - Projected Liabilities



A comparison of assets with the AAL is used by GASB to judge the progress to date of funding the "ultimate" liability associated with service earned to date. A common goal is to have $100 \%$ funding of the AAL, and a maturing plan's funded ratio should increase over time.

The AAL was developed using an assumed rate of interest discount of $8.4 \%$ and is compared to the actuarial value of assets. The Plan's current funded position is at $89.9 \%$.

## Funded Trend - Projected Liabilities


$\square$ Actuarial Value of Assets $\square$ Actuarial Accrued Liability (AAL)

The Plan's funded status has increased since the prior valuation to $89.9 \%$ of actuarial accrued liabilities. If the Plan's experience continues as expected, this percentage is expected to increase gradually to $100 \%$.

## Valuation Trend



Payroll and projected liabilities have increased about as expected since the last valuation. The UAAL has decreased slightly due to the actuarial gains experienced by the Plan. The UAAL is normally expected to increase in dollar amount as a function of the amortization methodology that develops amortization payments as a level percentage of payroll, thus an increasing dollar amount).

## Participation Trend



## True Costs

It should be noted that the true costs of a retirement plan cannot be determined until its future unfolds. No one can precisely predict the interest earnings on fund assets, member termination rates, future salary levels, mortality experience, etc. Estimates based on experience with similar groups, along with the judgment of the actuary and the plan sponsor, can provide a reasonable approximation of this true cost. As actual experience emerges under the Plan, it will be necessary to study the continued appropriateness of the techniques and assumptions employed and to adjust the contribution rate as necessary.

## SECTION 2 <br> ACTUARIAL VALUATION DEVELOPMENT

## Date and Basis of Valuation

The City of Jacksonville General Employees Pension Plan is part of the City of Jacksonville Retirement System and shares a common pension trust fund with the City of Jacksonville Corrections Officers Pension Plan. The Corrections Officers Pension Plan was separated from the General Employees Pension Plan effective October 1, 2004.

Estimated liabilities with respect to the benefits provided by the Plan and the contributions required to fund these liabilities have been determined as of October 1, 2007, based upon:

1. the provisions of the Plan, as in effect on October 1, 2007, as summarized in Appendix A;
2. the actuarial assumptions and actuarial cost method, as summarized in Appendix B;
3. the statement of fund assets provided by the City, as summarized in Appendix C; and
4. the member data provided by the City, as summarized in Appendix D.

The statement of trust fund assets has been supplied by the City. The member data has been audited by the City and provided as representative of the current participating group. While the asset and member information was reviewed for overall reasonableness, Actuarial Concepts has relied on the City for this information and does not assume responsibility for either its accuracy or completeness.

Member Reconciliation

|  | Actives | Retirees, Beneficiaries | Disabled <br> Retirees | Vested <br> Terminateds and Leaves of Absence |
| :---: | :---: | :---: | :---: | :---: |
| 10/01/06 Members | 5,096 | 4,244 | 137 | 79 |
| Increase (Decrease) Due to: |  |  |  |  |
| New Entrants | 377 | - | - | - |
| Rehires/Benefits Restored | 6 | (4) | - | (1) |
| Retirements | (114) | 123 | - | (9) |
| Terminations | (244) | - | - | 8 |
| Leave of Absence | - | - | - | - |
| Deaths | (12) | (80) | (18) | - |
| Disableds | (5) | - | 5 | - |
| Remarried | - | (2) | - | - |
| Child Turned 18 | - | (1) | - | - |
| Pension Refunded | - | - | - | (5) |
| Benefits Suspended | - | (7) | - | - |
| 10/01/07 Members | 5,104 | 4,273 | 124 | 72 |

## Valuation Financial Values

| 1. Participation |  |  |  |
| :---: | :---: | :---: | :---: |
| (a) Number of Active Members |  |  | 5,104 |
| (b) Number of Inactive Members |  |  | 4,469 |
| (c) Annual Valuation Payroll for Contributing Members |  | \$ | 262,103,069 |
| (d) Total Valuation Payroll |  |  | 262,103,069 |
| 2. Actuarial Present Value (APV) of Future Benefits as of 10/1/07 |  |  |  |
| (a) Active Members Under NRA |  |  |  |
| (1) Retirement |  |  | 979,518,867 |
| (2) Withdrawal |  |  | 19,820,935 |
| (3) Disability |  |  | 19,972,998 |
| (4) Death |  |  | 20,170,228 |
| (5) Refund of Contributions |  |  | 4,588,762 |
| (6) Total |  | \$ | 1,044,071,790 |
| (b) Retirees and Beneficiaries |  |  | 1,135,953,766 |
| (c) Disabled Retirees |  |  | 16,486,433 |
| (d) Vested Terminated Members |  |  | 6,561,040 |
| (e) Total APV Future Benefits |  | \$ | 2,203,073,029 |
| 3. APV Apportionment of line 2(e)* |  |  |  |
| (a) APV of Total Future Normal Costs |  |  | 298,143,930 |
| (b) Actuarial Accrued Liability (AAL) [(2e)-(3a)] |  |  | 1,904,929,170 |
| (c) Accrued Member Contributions for Past Service Purchase |  |  | 71 |
| (d) City Actuarial Accrued Liability [(3b)-(3c)] |  |  | 1,904,929,099 |
| (e) Actuarial Value of Assets |  |  | 1,712,460,912 |
| (f) Unfunded AAL (UAAL) [(3d)-(3e)] |  | \$ | 192,468,187 |
| 4. Breakdown of UAAL on line 3(d) |  |  |  |
| (a) UAAL [3(d)] |  |  | 192,468,187 |
| (b) Change in UAAL Due to Plan Change |  |  | - |
| (c) UAAL Before Change [(4a)-(4b)] |  | \$ | 192,468,187 |
| (d) Expected UAAL |  |  | 221,374,051 |
| (e) Actuarial (Gain) Loss [(4c)-(4d)] |  | \$ | $(28,905,864)$ |
| 5. Contribution Requirements Due ** $\begin{gathered}\text { End of } \\ \text { Month }\end{gathered}$ Oct-08 | Equiv. Annual \$ Amount |  | Percentage of Payroll |
| (a) City Normal Cost | \$ 14,634,745 |  | 5.39\% |
| (b) Amortization of UAAL | 13,665,371 |  | 5.04\% |
| (c) Total Required City Contribution [(5a)+(5b)] | \$ 28,300,116 |  | 10.43\% |
| (d) Estimated Member Contributions | 21,702,134 |  | 8.00\% |

* Calculated in accordance with the Individual Entry Age Actuarial Cost Method.
** Payments start one year from valuation date; includes a payroll growth rate of $3.5 \%$ per year.


## Contribution Requirements*

|  |  |  | $\mathbf{2 0 0 7 - 0 8}$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

* Expressed as annual amounts assumed payable in 12 equal installments at the end of each month, starting October 31. 2007-08 requirements determined with 2006 valuation and estimated 2007-08 payroll projected from 2006 valuation payroll. 2008-09 requirements determined with 2007 valuation and estimated 2008-09 payroll projected from 2007 valuation payroll. Normal cost includes $\$ 894,836$ of expenses in 2007-08 and \$1,254,036 in 2008-09.


## Explanation of Financial Values

Total Actuarial Present Value (APV) of Future Benefits (line 2e)
The APV of future benefits is determined by first measuring what benefit amount would be available for each member at various future dates (assuming future service credits earned and future salary increases awarded) under each of the events provided for by the Plan (retirement, death, disability, termination of employment). Then the future value of those benefit entitlements is determined by multiplying the various benefit amounts by the then current value of the annuities associated with those amounts. Finally, the APV of those future benefit values is determined by applying discounts to recognize the time value of money and probabilities of death, disability, termination of employment, etc.

APV Apportionment (line 3)
Total Plan liabilities are assigned to past and future periods by the Individual Entry Age Cost Method, called actuarial accrued liability (AAL), for the past portion and APV of future normal costs for the future portion. These liabilities are not the APV of benefits accrued to date by members. They are actuarially determined allocations based on the accrual of Individual Entry Age normal cost amounts due prior to the valuation date. The liability for benefits accrued to date (the APV of accumulated benefits) is provided in Section 3.

The AAL is adjusted by expected member contributions receivable for past service purchase to obtain the net City AAL. Actuarial assets are then subtracted from the City AAL to obtain the unfunded AAL or UAAL.

## Development of Plan Normal Cost and City Normal Cost (line 5a)

The Plan normal cost for the 12-month period beginning on the valuation date has been determined by first calculating for each member an individual yearly normal cost (that changes in dollar amount as pay increases, but is constant as a percent of each individual's pay), then adding together to obtain the Plan normal cost amount as of the beginning of the year. The base Plan normal cost is then adjusted to recognize expected administrative expenses to determine the total Plan normal cost rate as of the beginning of the plan year (before interest adjustments to recognize timing of contributions). The Plan normal cost for the 12-month period beginning one year after the valuation date, has been determined by multiplying the Plan normal cost amount as of the beginning of the year by a factor to adjust for payments expected to be paid monthly, then multiplying by the expected growth in payroll of $3.5 \%$ from the valuation date to the payment starting date. The City normal cost is obtained by subtracting the expected member contributions from the Plan normal cost.

## Amortization of UAAL (line 5b)

The amortization of the UAAL is developed as a combination of the application of the 30-year spreading methodology (described in Appendix B) with a one-year delay in starting of the payments, to the base established in 2002 as modified by the 2004 interim actuarial impact statement as well as bases established in 2004 through 2007 to recognize the changes in assumptions and actuarial gains and/or losses.

## Explanation of Contribution Requirements

Total Required Contribution Amount (line 3) and
Net Required City Contribution Amount (line 5)
The required contribution for the 2007-08 plan year is the annual amount determined using the 2006 valuation contribution rates as adjusted by an interim statement of actuarial impact, assumed payable monthly, and applied to the expected 2007-08 participating payroll.

The required contribution for the 2008-09 plan year is the annual amount determined using the 2007 valuation contribution rates, assumed payable monthly applied to the expected 2008-09 participating payroll. The City's net required contribution is equal to the total required contribution less estimated member contributions. The City's cash contribution is equal to the net required contribution less any credits for amounts allocated from the PEC account toward that requirement.

## Derivation of Current UAAL

## Development of UAAL as of Valuation Date

1. (a) Unfunded Actuarial Accrued Liability (UAAL) as of $10 / 1 / 06$ \$ 219,676,656
(b) Increase Due to Amendments
(c) Payment Delay Effects
(d) UAAL Subject to Amortization
$\begin{array}{r}(359,107) \\ \hline \$ 219,317,549\end{array}$
2. Normal Cost - Year Ended 9/30/07*

30,555,678
3. Interest Accrued on (1) and (2) 20,989,351
4. Contributions** - Year Ended 9/30/07* 48,519,620
5. Interest Accrued on (4) 1,905,288
6. Contribution from Past Excess Contribution (PEC) Account $(936,381)$
7. Expected UAAL at $10 / 01 / 07[(1)+(2)+(3)-(4)-(5)-(6)]$ 221,374,051
8. Changes Due to:
(a) Actuarial Assumptions
(c) Plan Amendments
(d) Actuarial (Gain)/Loss
(e) Total
9. UAAL at Valuation Date***

192,468,187

* Net of expenses.
** Contributions in cash made by the City exclude any amounts allocated from the PEC account to meet total contribution requirements.
${ }^{* * *}$ Determined as the difference between the AAL and the actuarial value of assets as adjusted to recognize the PEC.


## SECTION 3

## ANALYSIS OF VALUATION RESULTS

## Discussion of Valuation Results

If the participating group remained unchanged and all the actuarial assumptions were realized, the Plan's experience would be as anticipated, and there would be no actuarial gain or loss. If the experience were less favorable than anticipated, an actuarial loss would result; if more favorable, an actuarial gain would result.

For the 12 months ended September 30, 2007, the actual experience under the Plan was more favorable than expected, resulting in a net actuarial gain. Much of this gain was attributable to investment returns more than expected, with a return measured on actuarial value of assets of $11.43 \%$ versus the valuation of assumption of $8.40 \%$. Offsetting this favorable experience were losses due to fewer retiree deaths than assumed and increased liabilities due to data adjustments close to $\$ 9$ million. Additional losses occurred due to new retirees having greater liabilities than expected of approximately $\$ 7$ million. There was an additional loss due to salary increases greater than expected, with an increase of $6.03 \%$ per year versus the valuation assumption of $5.71 \%$ per year.

Future valuations will monitor the Plan's experience to determine whether actuarial gains or losses have occurred since the previous valuation.

It should be noted that the true costs of a retirement plan cannot be determined until its future unfolds. No one can precisely predict the interest earnings on fund assets, member termination rates, future salary levels, mortality experience, etc. Estimates based on experience with similar groups, along with the judgment of the actuary and the plan sponsor, can provide a reasonable approximation of this true cost. As actual experience emerges under the Plan, it will be necessary to study the continued appropriateness of the techniques and assumptions employed and to adjust the contribution rate as necessary.

Valuation Comparison Table

| 1. Member Data | 10/1/06 | 10/1/07 |
| :---: | :---: | :---: |
| (a) Active Members | 5,096 | 5,104 |
| (b) Retirees and Beneficiaries | 4,244 | 4,273 |
| (c) Disabled Members | 137 | 124 |
| (d) Vested Terminated Members | 79 | 72 |
| (e) Total Anticipated Payroll for | \$ 249,369,997 | \$ 262,103,069 |
| Next 12 Months |  |  |
| (f) Actuarial Present Value (APV) | 2,308,778,444 | 2,378,481,391 |
| of Future Valuation Payroll |  |  |
| (g) Total Annual Benefit Payments | 100,996,272 | 105,233,422 |
| 2. Assets |  |  |
| (a) Market Value | 1,619,156,895 | 1,783,525,685 |
| (b) Actuarial Value | 1,593,295,526 | 1,712,460,912 |
| 3. Liabilities |  |  |
| (a) APV of Future Ben |  |  |
| (1) Active Members |  |  |
| --Retirement | 915,032,363 | 979,518,867 |
| --Withdrawal | 19,425,073 | 19,820,935 |
| --Disability | 19,203,769 | 19,972,998 |
| --Death | 20,205,965 | 20,170,228 |
| --Refund of Contributions | 4,500,001 | 4,588,762 |
| --Total | \$ 978,367,171 | \$1,044,071,790 |
| (2) Retirees and Beneficiaries | 1,097,210,507 | 1,135,953,766 |
| (3) Disabled Members | 17,677,866 | 16,486,433 |
| (4) Vested Terminated Members | 6,223,881 | 6,561,040 |
| (5) Total | \$2,099,479,425 | \$2,203,073,029 |
| (b) APV of Vested Accrued Benefits | 1,592,160,086 | 1,678,973,748 |
| (c) APV of All Accrued Benefits | 1,604,797,940 | 1,692,020,876 |
| (d) Actuarial Accrued Liability (AAL) | 1,812,972,182 | 1,904,929,099 |
| (e) Unfunded AAL (UAAL) | 219,676,656 | 192,468,187 |
| 4. Contribution Requirements* for Year Ended | 09/30/08 | 09/30/09 |
| (a) Plan Normal Cost** | \$ 33,814,119 | \$ 36,336,879 |
| (b) Amortization Payment | 15,130,779 | 13,665,371 |
| (c) Total Plan Requirements | \$ 48,944,898 | \$ 50,002,250 |
| (d) Estimated Member Contributions | 20,647,836 | 21,702,134 |
| (e) Total City Requirements | \$ 28,297,062 | \$ 28,300,116 |
| (f) Total City Requirement Adjusted to End of Year*** | 31,031,356 | 31,119,323 |

* Assumed payable at the end of each month; includes a payroll growth rate of 3.5\%.
** Includes expense normal cost of \$894,836 for 2007-2008 and \$1,254,036 for 2008-2009; equal amount included in contributions paid.
*** Includes interest adjustments at the valuation interest rate on amounts to end of year.

| PEC for Year Ended 9/30/07 | Without Interest <br> Adjustment |  | With Interest Adjustment |  |
| :---: | :---: | :---: | :---: | :---: |
| (a) PEC Beginning of Year |  |  | \$ | 5,298,076 |
| (b) (1) Contribution Required by City | \$ | 28,225,444 |  | 29,296,289 |
| (2) Contribution Required by Members |  | 19,784,211 |  | 20,534,804 |
| (3) Total Contribution Requirements | \$ | 48,009,655 | \$ | 49,831,093 |
| (c) (1) Actual City Contributions Paid * |  | 28,409,765 |  | 29,580,512 |
| (2) Actual Member Contributions Paid |  | 21,470,486 |  | 22,285,063 |
| (3) Total Contributions Paid | \$ | 49,880,251 | \$ | 51,865,575 |
| (d) Contribution from Corrections |  | 652,158 |  | 652,158 |
| (e) PEC End of Year |  |  |  | 6,679,496 |

* Includes expense normal cost amount of \$894,836.


## Effect of Amortization Policy on Contribution Requirements

In determining the contribution rate for the UAAL, it has been assumed that total member payroll will grow at the rate of $3.5 \%$ per year and that each UAAL base (when the UAAL is positive) is amortized over 30 years from inception, with a one-year delay in payments. Because of the use of the payroll growth funding policy, the UAAL increases in the early amortization year over the initial balance, levels off after about 12 years, then decreases rapidly toward the latter part of the amortization period.

The table below illustrates the amortization of the UAAL balance in accordance with the adopted level-percentage-of-increasing-payroll approach.

| UAAL Bases | Date of First Charge | Years Remaining at 10/01/07 | 2008-09 <br> Monthly <br> Amort. <br> Payment | Outstanding Balance at 10/01/07 |
| :---: | :---: | :---: | :---: | :---: |
| 2004 Fresh Start | 10/01/2004 | 26 | \$ 1,853,566 | \$ 318,443,943 |
| 2004 Decrease | 10/01/2004 | 27 | $(478,215)$ | $(83,742,081)$ |
| 2005 Gain | 10/01/2005 | 28 | $(19,956)$ | $(3,558,011)$ |
| 2006 Gain | 10/01/2006 | 29 | $(53,877)$ | $(9,769,800)$ |
| 2007 Gain | 10/01/2007 | 30 | $(162,736)$ | $(28,905,864)$ |
|  |  |  | \$ 1,138,782 | \$ 192,468,187 |


| End of Year | UAAL Balance |
| :---: | :---: |
| $2007-2008$ | $\$ \quad 193,725,309$ |
| $2008-2009$ | $195,817,665$ |
| $2009-2010$ | $197,589,458$ |
| $2010-2011$ | $198,996,391$ |
| $2015-2016$ | $198,682,167$ |
| $2020-2021$ | $179,600,181$ |
| $2025-2026$ | $128,934,579$ |
| $2030-2031$ | $26,847,733$ |
| $2033-2034$ | $(16,626,820)$ |
| $2034-2035$ | $(10,818,047)$ |
| $2035-2036$ | $(4,898,227)$ |
| $2036-2037$ | 0 |

Comparison of Assumed and Actual Salary Increases

| Period Ended <br> September 30 | Actual Rate <br> of Increase | Assumed Rate <br> of Increase |
| :---: | :---: | :---: |
| 1998 | $3.70 \%$ | $5.93 \%$ |
| 1999 | $6.50 \%$ | $5.93 \%$ |
| 2000 | $7.85 \%$ | $5.92 \%$ |
| 2001 | $10.18 \%$ | $5.92 \%$ |
| 2002 | $9.27 \%$ | $5.92 \%$ |
| 2005 | $4.55 \%$ | $5.57 \%$ |
| 2006 | $4.81 \%$ | $5.55 \%$ |
| 2007 | $6.03 \%$ | $5.71 \%$ |

Note that the 2002 salary increase rate was determined by prior actuary; for 2003 no valuation was performed; for 2004 no prior year database was available to make comparisons.

Comparison of Assumed and Actual Investment Returns

| Period Ended <br> September 30 | Actual Rate <br> of Return | Assumed Rate <br> of Return |
| :---: | :---: | :---: |
| 2001 | $5.87 \%$ | $8.40 \%$ |
| 2002 | $1.91 \%$ | $8.40 \%$ |
| 2003 | $4.73 \%$ | $8.40 \%$ |
| 2004 | $6.85 \%$ | $8.40 \%$ |
| 2005 | $8.21 \%$ | $8.40 \%$ |
| 2006 | $9.38 \%$ | $8.40 \%$ |
| 2007 | $11.43 \%$ | $8.40 \%$ |

*Measured on the basis of actuarial value to actuarial value, before any adjustments attributable to the removal of the past excess contributions account balance.

## Calculation of the Actual Rate of Investment Return



## Additional Disclosures

There are no additional disclosures required under Rules 22D-1.003(4)(f) and (g) of the
State of Florida, Department of Management Services, Division of Retirement.

CITY OF JACKSONVILLE
GENERAL EMPLOYEES PENSION PLAN

## SUMMARY OF PLAN PROVISIONS THAT AFFECT THE VALUATION

## Definitions

1. Member:
2. Member Contributions:
3. Creditable Service:
4. Earnings:
5. Final Average Earnings:
6. Accrued Benefit:

All permanent City General Employees are eligible for membership in the Plan upon date of hire.

8\% of Earnings; 2\% of Earnings during DROP participation.

The number of full years and months worked from date of participation to date of termination or retirement, plus any prior service purchased.

Base earnings plus service raises received by a Member as compensation for services to the City, excluding overtime pay, bonuses and other extra pay.

The average of a Member's annual Earnings for the highest 78 consecutive pay periods in which compensation was paid, within the last 10 years preceding termination of employment.

## Regular Benefit

A biweekly benefit of $2.5 \%$ of Final Average Earnings times Creditable Service, payable starting at Normal Retirement Date for life, with $75 \%$ continuation to surviving spouse; maximum benefit is $80 \%$ of Final Average Earnings.

## Health Insurance/Cost-of-Living Subsidy

In addition to the regular benefit, a biweekly supplement is payable under the same terms equal to $\$ 5$ a month times the number of years of Creditable Service at retirement, but not greater than 30 years; minimum benefit $\$ 50$ per month, maximum benefit $\$ 150$ per month. On the

April 1 nearest the fifth anniversary of the initial benefit commencement date, and on each April 1 thereafter, the regular benefit is increased by $3 \%$.
7. Normal Retirement:
8. Early Retirement:
9. Delayed Retirement:
10. Disability Benefit:

Eligibility Date - The earlier of (i) age 55 and 20 years of Creditable Service and (ii) age 65 and five years of Creditable Service.

Benefit - Accrued Benefit payable as of the Normal Retirement Date, but not less than $\$ 41.64$ per whole year of Creditable Service not to exceed 30. (Note: minimum accrual rate increased 4\% each October 1 ${ }^{\text {st }}$ ).

Eligibility Date - The earlier of (i) age 50 and 20 years of Creditable Service and (ii) 25 years of Creditable Service at any age.

Benefit - (i) at age 50 with 20 years of Creditable Service, Accrued Benefit with $1 / 2 \%$-per-month early payment reduction from age 55; (ii) with 25 years of Creditable Service, 2\% formula unreduced for early payment commencement; (iii) with 30 years of Creditable Service, the Accrued Benefit unreduced for early payment commencement; but in either case not less than $\$ 41.64$ per whole year of Creditable Service not to exceed 30 .

Eligibility Date - After Normal Retirement Date.
Benefit - Accrued Benefit at Delayed Retirement Date, but not less than $\$ 41.64$ per whole year of Creditable Service not to exceed 30.

Off the Job
A benefit equal to $25 \%$ of Final Average Earnings, increased by $2.5 \%$ per year for service in excess of five years, up to a maximum of $50 \%$ of Final Average Earnings, determined as of date of disability and payable as of the Disability Retirement Date, but not less than $\$ 41.64$ per
whole year of Creditable Service not to exceed 30.

On the Job
A benefit equal to $50 \%$ of Final Average Earnings, payable as of the Disability Retirement Date, but not less than $\$ 41.64$ per whole year of Creditable Service not to exceed 30.
11. Death Benefit before Retirement:

If a Member should die with an Eligible Spouse or orphaned child(ren), $75 \%$ of the Accrued Benefit (determined at a $2 \%$ accrual rate if Member is not eligible for Normal Retirement or Early Retirement) of the Member, unreduced, calculated as if the Member had worked until Normal Retirement Date at current salary, is payable to the Eligible Spouse (assumed temporarily to increase to $100 \%$ until children attain age 18) or to the orphaned child(ren) at the Member's earliest retirement date. Minimum $75 \%$ of the minimum benefit applicable to the Member.
12. Death Benefit after Retirement:
13. Termination Benefit:
14. BAC DROP:
$75 \%$ continuation to Eligible Spouse or orphaned child(ren) (if any), subject to the terms of the optional benefit form (if any) elected. Minimum $75 \%$ of the minimum benefit applicable to the Member.

If a Member should terminate prior to completing 5 years of Creditable Service, no benefits are payable except the return of $100 \%$ of Member Contributions, without interest. After completion of 5 years of Creditable Service, a Member is entitled to a benefit equal to the Accrued Benefit payable at age 65.

Members with 30 or more years of service may elect to have their retirement benefits calculated as if the Member had retired up to 5 years earlier on or after October 1, 2005. Benefits that would
have been payable are accumulated at interest to date of termination and paid or rolled over in a single sum, and payments are made directly to the Member thereafter. The 5-year wait to receive COLA increases starts at termination of employment rather than at the start of BAC DROP.
15. Partial Lump Sum Option:

Members who are eligible for retirement may elect to receive a lump-sum benefit up to $15 \%$ of the benefit value and a reduced life annuity actuarially equivalent to the benefit that otherwise would be payable.

CITY OF JACKSONVILLE
GENERAL EMPLOYEES PENSION PLAN

## ACTUARIAL ASSUMPTIONS AND ACTUARIAL COST METHOD SUMMARY

## Actuarial Assumptions

1. Investment Return:
2. Salary Increase Rate:

| Years of Service |  |
| :--- | :--- |
| 5 Rate |  |
| $6-10$ | $7.5 \%$ |
| $11-15$ | 6.0 |
| 16 and Over | 5.0 |

3. Mortality Rates:

RP-2000 Mortality Table for all plan members (actives, retirees and disableds)

Probability of Death
Within One Year
After Attaining Age Shown

| $\underline{\text { Age }}$ | $\underline{\text { Male }}$ | $\frac{\text { Female }}{0.02 \%}$ |
| :--- | :--- | :--- |
| 25 | $0.04 \%$ | 0.05 |
| 35 | 0.08 | 0.11 |
| 45 | 0.15 | 0.27 |
| 55 | 0.36 | 0.97 |

4. Retirement Rates Based on Service and Age:

COJ

| Years of | Age |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Service | $\underline{\text { under } 50}$ | $\underline{50-54}$ | $\underline{55-59}$ | $\underline{60-64}$ | $\underline{65-69}$ | $\underline{70+}$ |
| under 20 | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $20 \%$ | $100 \%$ |
| 20 | $0 \%$ | $5 \%$ | $25 \%$ | $50 \%$ | $50 \%$ | $100 \%$ |
| $21-27$ | $5 \%$ | $5 \%$ | $5 \%$ | $20 \%$ | $20 \%$ | $100 \%$ |
| $28-29$ | $0 \%$ | $5 \%$ | $10 \%$ | $20 \%$ | $20 \%$ | $100 \%$ |
| 30 | $15 \%$ | $15 \%$ | $15 \%$ | $15 \%$ | $20 \%$ | $100 \%$ |
| 31 | $5 \%$ | $5 \%$ | $5 \%$ | $5 \%$ | $15 \%$ | $100 \%$ |
| $32-34$ | $15 \%$ | $15 \%$ | $15 \%$ | $15 \%$ | $15 \%$ | $100 \%$ |
| 35 | $30 \%$ | $30 \%$ | $30 \%$ | $20 \%$ | $50 \%$ | $100 \%$ |

JEA

| Years of | Age |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Service | $\underline{\text { under 50 }}$ | $\underline{50-54}$ | $\underline{55-59}$ | $\underline{60-64}$ | $\underline{65-69}$ | $\underline{70+}$ |
| under 20 | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $20 \%$ | $100 \%$ |
| 20 | $0 \%$ | $5 \%$ | $15 \%$ | $50 \%$ | $50 \%$ | $100 \%$ |
| $21-27$ | $5 \%$ | $5 \%$ | $10 \%$ | $10 \%$ | $20 \%$ | $100 \%$ |
| $28-29$ | $1 \%$ | $5 \%$ | $10 \%$ | $10 \%$ | $20 \%$ | $100 \%$ |
| 30 | $5 \%$ | $10 \%$ | $15 \%$ | $15 \%$ | $20 \%$ | $100 \%$ |
| 31 | $5 \%$ | $10 \%$ | $10 \%$ | $15 \%$ | $15 \%$ | $100 \%$ |
| $32-34$ | $5 \%$ | $10 \%$ | $20 \%$ | $15 \%$ | $15 \%$ | $100 \%$ |
| 35 | $0 \%$ | $30 \%$ | $40 \%$ | $40 \%$ | $40 \%$ | $100 \%$ |

## 5. Termination Rates:

## COJ

Males durations

| ages | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ultimate |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
| under 20 | $26.0 \%$ | $22.0 \%$ | $22.0 \%$ | $22.0 \%$ | $15.0 \%$ | $12.0 \%$ | $12.0 \%$ | $11.0 \%$ | $11.0 \%$ | $11.0 \%$ | $7.0 \%$ |
| $20-24$ | $26.0 \%$ | $18.0 \%$ | $18.0 \%$ | $18.0 \%$ | $15.0 \%$ | $12.0 \%$ | $12.0 \%$ | $11.0 \%$ | $11.0 \%$ | $11.0 \%$ | $7.0 \%$ |
| $25-29$ | $26.0 \%$ | $14.0 \%$ | $14.0 \%$ | $14.0 \%$ | $11.0 \%$ | $11.0 \%$ | $6.0 \%$ | $5.0 \%$ | $5.0 \%$ | $4.0 \%$ | $3.0 \%$ |
| $30-34$ | $24.0 \%$ | $14.0 \%$ | $14.0 \%$ | $11.0 \%$ | $9.0 \%$ | $6.0 \%$ | $6.0 \%$ | $5.0 \%$ | $5.0 \%$ | $4.0 \%$ | $2.5 \%$ |
| $35-39$ | $18.0 \%$ | $14.0 \%$ | $12.0 \%$ | $9.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $5.0 \%$ | $5.0 \%$ | $3.0 \%$ | $2.5 \%$ |
| $40-44$ | $15.0 \%$ | $10.0 \%$ | $10.0 \%$ | $9.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $5.0 \%$ | $5.0 \%$ | $3.0 \%$ | $2.5 \%$ |
| $45-49$ | $14.0 \%$ | $10.0 \%$ | $10.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $4.0 \%$ | $4.0 \%$ | $3.0 \%$ | $2.5 \%$ |
| $50-54$ | $14.0 \%$ | $10.0 \%$ | $8.0 \%$ | $6.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $3.0 \%$ | $2.5 \%$ |
| $55-59$ | $12.0 \%$ | $6.0 \%$ | $6.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $3.0 \%$ | $2.5 \%$ |
| 60 \& over | $8.0 \%$ | $6.0 \%$ | $4.0 \%$ | $4.0 \%$ | $4.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |

COJ
Females durations

| ages | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ultimate |
| ---: | :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| under 20 | $24.0 \%$ | $22.0 \%$ | $20.0 \%$ | $16.0 \%$ | $15.0 \%$ | $15.0 \%$ | $15.0 \%$ | $15.0 \%$ | $15.0 \%$ | $15.0 \%$ | $6.0 \%$ |
| $20-24$ | $24.0 \%$ | $18.0 \%$ | $18.0 \%$ | $15.0 \%$ | $14.0 \%$ | $14.0 \%$ | $12.0 \%$ | $12.0 \%$ | $12.0 \%$ | $12.0 \%$ | $6.0 \%$ |
| $25-29$ | $22.0 \%$ | $18.0 \%$ | $18.0 \%$ | $14.0 \%$ | $11.0 \%$ | $10.0 \%$ | $10.0 \%$ | $10.0 \%$ | $10.0 \%$ | $10.0 \%$ | $3.0 \%$ |
| $30-34$ | $22.0 \%$ | $14.0 \%$ | $14.0 \%$ | $10.0 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ | $7.0 \%$ | $2.7 \%$ |
| $35-39$ | $22.0 \%$ | $11.0 \%$ | $10.0 \%$ | $10.0 \%$ | $7.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $2.5 \%$ |
| $40-44$ | $20.0 \%$ | $10.0 \%$ | $10.0 \%$ | $10.0 \%$ | $7.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $6.0 \%$ | $2.5 \%$ |
| $45-49$ | $15.0 \%$ | $10.0 \%$ | $9.0 \%$ | $7.5 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $2.5 \%$ |
| $50-54$ | $15.0 \%$ | $10.0 \%$ | $9.0 \%$ | $7.5 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $2.5 \%$ |
| $55-59$ | $15.0 \%$ | $10.0 \%$ | $9.0 \%$ | $7.5 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $2.5 \%$ |
| 60 \& over | $12.0 \%$ | $10.0 \%$ | $9.0 \%$ | $7.5 \%$ | $5.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |

JEA
Males durations

| ages | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ultimate |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | ---: |
| under 20 | $7.5 \%$ | $6.0 \%$ | $3.5 \%$ | $3.5 \%$ | $3.0 \%$ | $3.0 \%$ | $2.5 \%$ | $2.5 \%$ | $2.0 \%$ | $2.0 \%$ | $2.0 \%$ |
| $20-24$ | $7.5 \%$ | $6.0 \%$ | $3.5 \%$ | $3.5 \%$ | $3.0 \%$ | $3.0 \%$ | $2.5 \%$ | $2.5 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ |
| $25-29$ | $7.5 \%$ | $6.0 \%$ | $3.5 \%$ | $3.5 \%$ | $3.0 \%$ | $3.0 \%$ | $2.5 \%$ | $2.5 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ |
| $30-34$ | $2.5 \%$ | $2.0 \%$ | $2.0 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ |
| $35-39$ | $2.5 \%$ | $2.0 \%$ | $2.0 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ |
| $40-44$ | $2.5 \%$ | $2.0 \%$ | $2.0 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ |
| $45-49$ | $2.5 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.0 \%$ | $1.0 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ |
| $50-54$ | $2.5 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.0 \%$ | $1.0 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ |
| $55-59$ | $2.5 \%$ | $2.0 \%$ | $1.5 \%$ | $1.0 \%$ | $1.0 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ | $0.5 \%$ |
| 60 \& over | $2.5 \%$ | $2.0 \%$ | $1.5 \%$ | $1.0 \%$ | $0.5 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |

JEA
Females durations

| ages | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | ultimate |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| under 20 | $7.5 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $4.0 \%$ | $4.0 \%$ | $2.5 \%$ | $2.5 \%$ | $2.5 \%$ |
| $20-24$ | $7.5 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $4.0 \%$ | $4.0 \%$ | $2.5 \%$ | $2.5 \%$ | $2.5 \%$ |
| $25-29$ | $7.5 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $5.0 \%$ | $4.0 \%$ | $4.0 \%$ | $2.5 \%$ | $2.5 \%$ | $2.5 \%$ |
| $30-34$ | $7.5 \%$ | $5.0 \%$ | $3.0 \%$ | $3.0 \%$ | $3.0 \%$ | $3.0 \%$ | $3.0 \%$ | $3.0 \%$ | $2.0 \%$ | $2.0 \%$ | $2.0 \%$ |
| $35-39$ | $6.0 \%$ | $5.0 \%$ | $3.0 \%$ | $3.0 \%$ | $3.0 \%$ | $3.0 \%$ | $3.0 \%$ | $3.0 \%$ | $2.0 \%$ | $2.0 \%$ | $2.0 \%$ |
| $40-44$ | $4.0 \%$ | $3.0 \%$ | $2.0 \%$ | $2.0 \%$ | $2.0 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ |
| $45-49$ | $3.0 \%$ | $2.5 \%$ | $2.0 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ |
| $50-54$ | $2.5 \%$ | $2.0 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ |
| $55-59$ | $2.5 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.5 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ | $1.0 \%$ |
| 60 \& over | $2.5 \%$ | $2.0 \%$ | $1.5 \%$ | $1.5 \%$ | $1.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ | $0.0 \%$ |

6. Disability Incidence Rates:
$\left.\begin{array}{ll}\begin{array}{r}\text { Probability of Disability } \\ \text { Within One Year }\end{array} \\ \text { After Attaining Age Shown }\end{array}\right\}$
7. Marital Status and Spouse's Age:
$65 \%$ of active members assumed to be married with the male spouse 3 years older and female spouses 3 years younger. No remarriages are assumed. Marital status of retirees is actual as reported.
8. Actuarial Value of Assets: | Current market value adjusted by a 5 -year |
| :--- |
| weighted average trend in actual yields |
| compared to those expected, as described in |
| Appendix C. |
9. Growth Rate of Future Membership Payroll:
$3.5 \%$ per year.
10. Plan Expenses:

Previous year's actual expenses.
11. Underlying Long-Term Inflation Rate:
$3.5 \%$ per annum, compounded annually.

## Actuarial Cost Method

To determine the Plan's contribution requirements, the Individual Entry Age Actuarial Cost Method was used. Under this method, the cost of each member's projected retirement benefit is funded through a series of annual payments, determined as a level percentage of each year's earnings from age at hire to assumed exit age. This level percentage, known as normal cost, is thus computed as though the Plan had always been in effect. A yearly normal cost for each member is individually determined by multiplying each member's level percentage by the applicable yearly earnings, then adding together to obtain the normal cost amount for the Plan for that year. The accrued value of normal cost payments due prior to the valuation date is termed the actuarial accrued liability (AAL). This amount minus the actuarial value of assets is known as the unfunded actuarial accrued liability (UAAL). The annual cost of a plan has two components: normal cost and an amortization payment, which may vary between prescribed limits, toward the UAAL.

An actuarial gain (or loss), a measurement of the difference between actual experience and that expected based upon the actuarial assumptions during the period between two actuarial valuation dates, reduces (or increases) the UAAL. This amount is amortized over selected periods not greater than 30 years. Initially, a 30-year period is usually chosen. Periodically, some or all of the remaining balance of any actuarial gain may
offset the remaining balance of a prior liability base, starting with the earliest base. Similarly, any actuarial loss may be offset with the remaining balance of a prior credit base or actuarial gain, starting with the earliest base. After all liability or loss bases have been eliminated, remaining gains may be amortized over 10 years. Any remaining past excess contributions may be used to offset payouts of normal cost and/or amortization payments.

When plan amendments liberalize benefits or when actuarial assumptions are modified, the difference in the AAL due to the changes is established as a supplement to the UAAL amortized over 30 years from date of establishment, net of any negative UAAL credits. To the extent that increases or losses occur that move the UAAL out of a surplus position, negative outstanding bases will be used to offset such increases before any new bases are established.

It is intended that each UAAL base be amortized over its specified period through monthly contributions expressed as a level percentage of each month's payroll, incorporating an assumption that future payroll will grow at the rate of $3.5 \%$ per year. Payments are assumed to begin one year after initial recognition of the base, and continue monthly for the remaining period of each base.

## Miscellaneous Valuation Procedures

1. Annual covered payroll was determined using the data supplied as annualized monthly rates applicable during the 2006-07 fiscal year to members active as of September 30, 2007. Annual valuation payroll for the 2007-08 fiscal year was determined using covered payroll and the Plan's salary increase assumption by individual member. Annual valuation payroll for the 2008-09 fiscal year was determined using valuation payroll for 2007-08 projected for one year using the Plan's payroll growth assumption.
2. Projected retirement benefits were limited to IRC Section 415 benefit limits applicable to the current plan year (for fiscal year 2007, $\$ 180,000$ ), payable as a $75 \%$ joint-and-survivor annuity beginning at or after age 62, reduced as applicable for earlier benefit commencement) with assumed future increases in the benefit limit at $3 \%$ per year. Due to this limitation, plan liabilities and related contribution requirements are somewhat less than they would have been without these limitations.
3. Projected earnings were limited to IRC Section 401(a)(17) compensation limits applicable to the current plan year (for fiscal year 2007, $\$ 225,000$ ) with assumed increases equal to the assumed long-term rate of inflation.
4. The effect of member contributions on the funding of normal cost requirements has been recognized through subtracting the present value of future member contributions from the total present value of Plan normal costs, to determine the net City portion. The City normal cost is then derived from this remaining value.
5. The Past Excess Contribution (PEC) account (the accumulation of prior cash payments made by the City into the Plan in excess of the minimum requirements) may be employed by the City to assist in meeting the Plan's contribution requirements. The PEC is an unassigned separate account within the fund. The PEC was originally established to track the difference between the required minimum unfunded balances under State law and the actual unfunded balances, and the PEC was carried forward from one fiscal year to the next using the assumed rate of investment return consistent with the unfunded from which it was derived. Now as a separate account, the originally established procedures have been continued in tracking the PEC forward.
6. Actual past service currently being purchased by members was used to measure the increase in the liability due to including the extra service credits, irrespective of whether the purchase has been completed. Once the purchase has been completed, the pension service date is changed by the City to reflect the total applicable service.
7. Retirees in payment status include some disabled employees receiving benefits; separate data is not reported, so all disableds are valued using standard RP-2000 mortality rates. Terminateds with future benefits include employees on leave of absence.
8. City cash contributions are net of retirement payment pass-throughs of remaining retirees under the 1919 City Plan.
9. The payroll growth rate has been permanently set at the original $3.5 \%$ rate for the remaining amortization period rather than as a result of a three-year averaging of growth in City payroll. The current assumption will not hereafter be adjusted.

CITY OF JACKSONVILLE GENERAL EMPLOYEES PENSION PLAN

## TRUST FUND BALANCE AS OF 9/30/07

|  | Market <br> Value |  |
| :--- | ---: | ---: |
| Cash and Short-Term Investments | $54,338,711$ |  |
| Accrued Interest and Dividend Receivable | $5,904,309$ |  |
| U.S. Government Obligations | $181,980,310$ |  |
| Domestic Stocks | $743,179,985$ |  |
| International Stocks | $251,243,339$ |  |
| Real Estate | $145,077,254$ |  |
| Domestic Corporate Bonds | $365,156,999$ |  |
| Commercial Paper | $41,356,941$ |  |
| Property, Plant and Equipment | 16,650 |  |
| Due to DROP Participants |  | $(4,728,813)$ |
| Accrued Expenses | $\$ 1,783,525,685$ |  |

## CITY OF JACKSONVILLE

GENERAL EMPLOYEES PENSION PLAN

## ANALYSIS OF CHANGES IN MARKET VALUE OF ASSETS

Market Value of Assets as of 9/30/06
\$ 1,619,156,895
Adjustment
Market Value of Assets as of 10/1/06
\$ 1,619,156,895

## Add:

City/County Contributions 28,409,765
Transfer to Corrections
652,158
Member Contributions 21,470,486
Miscellaneous Income 871
Investment Income
Total Additions

| $229,148,454$ |
| :--- |
| $\$ \quad 279,681,734$ |

Deduct:
Benefit Payments
104,609,394
Refunds
3,518,901
Administrative Expenses 1,212,212
Investment Advisory Expenses 5,972,437
Miscellaneous
Total Deductions
$\$ 115,312,944$

Market Value of Assets as of 9/30/07
$1,783,525,685$

## CITY OF JACKSONVILLE

GENERAL EMPLOYEES PENSION PLAN

## DEVELOPMENT OF ACTUARIAL (STATEMENT) VALUE OF ASSETS

A. Calculation of Investment Yield as of

End of Plan Year

Market Value Beginning of Year
Market Value End of Year
Contributions - All Sources
Benefit Payments and Expenses
Income
Yield for Year
B. Calculation of Weighted Indices

| Plan Year | Cumulative |  |  | Index |  | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual | Index | Val. Rate | Updated at |  |  |
|  | Market-to- | Market-to- | Update | Val. Rate to | Weighting | Weighted |
| Ending | Market Yield | Market Yield | Factor | Val. Date | Factor | Index |
| 2003 | 16.38\% | 116.38 | 1.3808 | 160.70 | 1/15 | 10.71 |
| 2004 | 11.37\% | 129.61 | 1.2738 | 165.10 | 2/15 | 22.01 |
| 2005 | 9.34\% | 141.72 | 1.1751 | 166.54 | 3/15 | 33.31 |
| 2006 | 8.33\% | 153.53 | 1.0840 | 166.43 | 4/15 | 44.38 |
| 2007 | 14.04\% | 175.09 | 1.0000 | 175.09 | 5/15 | 58.36 |
|  |  |  |  |  |  | 168.77 |
| C. Adjus | tment Factor | 168.77 / 175.09 |  |  |  | 0.9639 |
| D. Market Value End of Year |  |  |  |  | \$ | 1,783,525,685 |
| E. Actuarial Value of Assets [C x D] |  |  |  |  |  | 1,719,140,408 |
| F. Past Excess Contribution (PEC) Account |  |  |  |  |  | 6,679,496 |
| G. Actuarial Value of Assets Net of PEC [E-F] |  |  |  |  | \$ | 1,712,460,912 |

D. Market Value End of Year
E. Actuarial Value of Assets [C x D]
F. Past Excess Contribution (PEC) Account
G. Actuarial Value of Assets Net of PEC [E-F]

10/1/07
\$ 1,619,156,895
1,783,525,685
50,532,409
115,312,944
223,176,017
14.04\%
10.71
22.01
44.38
58.36
0.9639
\$ 1,783,525,685
1,719,140,408
6,679,496
\$ 1,712,460,912

CITY OF JACKSONVILLE
GENERAL EMPLOYEES PENSION PLAN

## CALCULATION OF ACTUARIAL VALUE OF ASSETS

The actuarial value of assets is determined by multiplying the market value of assets by an adjustment factor. This adjustment is used to smooth out short-term changes in market value. The actuarial adjustment factor is developed as follows:
(1) Determine investment yield for the last five years on market value of assets.
(2) Calculate performance indices for the past five Plan Years based on actual fund yields during those years (using an original index of 100.00 at 9/30/99).
(3) Calculate a growth factor to update the indices at an increase of $8.4 \%$ from 2000 to the valuation date.
(4) Update each year's index to the valuation date by multiplying (2) and (3).
(5) Assign weights of $1 / 15$ through $5 / 15$ for each of those years, with heavier weights given to the more recent years.
(6) Determine a total weight value as the sum of the five individual years' results of (4) times (5).
(7) Calculate the actuarial adjustment factor by dividing the total weight value by the performance index as of the valuation date.
(8) Determine the actuarial value of assets by multiplying the market value of assets by the actuarial adjustment factor.

CITY OF JACKSONVILLE
GENERAL EMPLOYEES PENSION PLAN

## RECONCILIATION OF PLAN MEMBERS 10/01/06-10/01/07

|  | Actives | Retirees, Beneficiaries | Disabled <br> Retirees | Vested Terminateds and Leaves of Absence |
| :---: | :---: | :---: | :---: | :---: |
| 10/01/06 Members | 5,096 | 4,244 | 137 | 79 |
| Increase (Decrease) Due to: |  |  |  |  |
| New Entrants | 377 | - | - | - |
| Rehires/Benefits Restored | 6 | (4) | - | (1) |
| Retirements | (114) | 123 | - | (9) |
| Terminations | (244) | - | - | 8 |
| Leave of Absence | - | - | - | - |
| Deaths | (12) | (80) | (18) | - |
| Disableds | (5) | - | 5 | - |
| Remarried | - | (2) | - | - |
| Child Turned 18 | - | (1) | - | - |
| Pension Refunded | - | - | - | (5) |
| Benefits Suspended | - | (7) | - | - |
| 10/01/07 Members | 5,104 | 4,273 | 124 | 72 |

## CITY OF JACKSONVILLE GENERAL EMPLOYEES PENSION PLAN <br> INACTIVE MEMBERS AT 10/01/07

|  | Number | Annual Benefit Amount |  |
| :---: | :---: | :---: | :---: |
| Retirees and Beneficiaries |  |  |  |
| Currently Receiving Payments | 4,273 | \$ | 103,558,402 |
| Disabled Members Currently |  |  |  |
| Receiving Payments | 124 |  | 1,675,019 |
| Vested Terminated Members |  |  |  |
| Entitled to Future Benefits | 72 |  | 1,222,535 |
| Total | 4,469 | \$ | 106,455,956 |

## CITY OF JACKSONVILLE

GENERAL EMPLOYEES PENSION PLAN
DISTRIBUTION OF ACTIVE MEMBERS
BY ATTAINED AGE AND COMPLETED YEARS OF SERVICE AS OF 10/01/07

| Completed Years of Service |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Attained Age | 0 | 1 | 2 | 3-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35 \& Over | Total |
| Under 25 | 56 | 36 | 37 | 11 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 146 |
| 25-29 | 55 | 53 | 60 | 54 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 275 |
| 30-34 | 54 | 48 | 54 | 66 | 131 | 21 | 0 | 0 | 0 | 0 | 0 | 374 |
| 35-39 | 41 | 50 | 57 | 63 | 185 | 67 | 55 | 8 | 0 | 0 | 0 | 526 |
| 40-44 | 49 | 59 | 60 | 59 | 173 | 86 | 140 | 100 | 8 | 0 | 0 | 734 |
| 45-49 | 46 | 41 | 50 | 66 | 218 | 89 | 179 | 175 | 118 | 9 | 0 | 991 |
| 50-54 | 30 | 46 | 34 | 53 | 153 | 81 | 157 | 107 | 125 | 108 | 4 | 898 |
| 55-59 | 13 | 18 | 29 | 35 | 132 | 70 | 112 | 66 | 64 | 82 | 20 | 641 |
| 60 | 1 | 1 | 9 | 7 | 18 | 8 | 27 | 15 | 14 | 14 | 6 | 120 |
| 61 | 1 | 1 | 6 | 6 | 20 | 14 | 19 | 4 | 6 | 10 | 5 | 92 |
| 62 | 1 | 0 | 2 | 3 | 13 | 2 | 12 | 5 | 5 | 5 | 3 | 51 |
| 63 | 2 | 2 | 6 | 2 | 14 | 9 | 19 | 3 | 5 | 2 | 1 | 65 |
| 64 | 0 | 1 | 1 | 2 | 8 | 7 | 12 | 2 | 5 | 0 | 3 | 41 |
| 65 \& Over | 1 | 5 | 6 | 4 | 19 | 23 | 36 | 17 | 14 | 13 | 12 | 150 |
| Total | 350 | 361 | 411 | 431 | 1143 | 477 | 768 | 502 | 364 | 243 | 54 | 5104 |

Average Age at Entry $=34.5$
Average Age at Valuation $=46.7$
Average Years of Service $=12.2$

CITY OF JACKSONVILLE
GENERAL EMPLOYEES PENSION PLAN

## CURRENT LIABILITIES/PLAN ASSET COMPARISON

A comparison of current assets of the fund with the current actuarial present value (APV) of benefits accrued based on credited service and salary to date is commonly used to determine the Plan's current funded status. This measurement is often used as a surrogate for the liability if the Plan were to stop future benefit accruals. It is called "current liability" since it is based only on current earned benefits, even though the actual payment of those benefits extends many years into the future. The accumulated benefit liability APVs were developed using the assumed rate of future investment return of $8.4 \%$.

The current liability is normally expected to be more than $100 \%$ funded for an ongoing plan since the plan will ultimately be liable for a greater accrued benefit (the creditedprojected benefit).

## Assets

\$ 1,712,460,912

Actuarial Present Value of Accumulated Plan Benefits
1,692,020,876

Percent Funded 101\%

Concėpts

