

**MONROE COUNTY EMPLOYEES RETIREMENT SYSTEM**  
**BASIC RETIREMENT BENEFITS**  
ACTUARIAL VALUATION REPORT  
DECEMBER 31, 2007

# CONTENTS

| <b>Section</b> | <b>Page</b> |   |
|----------------|-------------|---|
|                | 1           | Introduction  |
| A              | 1-3         | Executive Summary   |
| B              | 1           | Financial Objective   |
|                | 2-3         | Computed Contributions  |
|                | 4           | Unfunded Accrued Liability  |
|                | 5-6         | Comments  |
|                | 7           | Development of Experience Gain (Loss)   |
|                | 8           | Development of Valuation Investment Gain (Loss)   |
|                | 9-10        | Financial Objective Achievement Tests   |
|                | 11          | Assets and Liabilities Graph  |
|                | 12          | Comparative Statement   |
| C              | 1-2         | Summary of Benefit Provisions   |
|                | 3-10        | Retired Life Data   |
|                | 11          | Inactive Vested Member Data   |
|                | 12-20       | Active Member Data  |
|                | 21-22       | Financial Information and Analysis  |
|                | 23-24       | Development of Valuation Assets   |
|                | 25-26       | Development of 13 <sup>th</sup> Check Excess Reserve Fund   |
| D              | 1           | Valuation Methods   |
|                | 2-6         | Actuarial Assumptions   |
| E              | 1           | Financial Disclosure in Conformance with Statement<br>No. 25 of the Governmental Accounting Standards Board |

June 16, 2008

The Board of Trustees  
Monroe County Employees  
Retirement System  
Monroe, Michigan

Dear Board Members:

***Submitted in this report*** are the results of the Fortieth Annual Actuarial Valuation of the assets, benefit values, reserves and contribution requirements associated with benefits provided by the Monroe County Employees Retirement System.

***This report covers the basic retirement benefits provided by the Retirement System. The retiree health benefits provided by the County are not considered in this valuation.***

***The date of the valuation*** was December 31, 2007.

***An Executive Summary*** is included as Section A.

***Valuation results and comments*** are contained in Section B.

***The valuation was based upon information***, furnished by your Secretary, concerning Retirement System benefits, financial transactions, and individual members, terminated members, retirees and beneficiaries. Data was checked for internal and year-to-year consistency, but was not otherwise audited. This information is summarized in Section C.

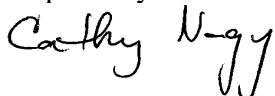
***Valuation methods***, economic assumptions and risk assumptions are summarized in Section D.

***Financial disclosure required by Statement No. 25 of the Governmental Accounting Standards Board*** is provided in Section E.

The valuation was performed by or under the supervision of a Member of the American Academy of Actuaries with substantial experience valuing public employee retirement benefit plans. The valuation uses generally accepted actuarial principles and is in accordance with standards of practice prescribed by the Actuarial Standards Board. To the best of our knowledge, this report is complete and accurate and the methods and assumptions employed produce results that are reasonable.

The actuaries signing this report are Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,



Cathy Nagy, FSA MAAA



Mark Buis, ASA, EA, MAAA

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## **SECTION A**

### **EXECUTIVE SUMMARY**

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## 1. Required Employer Contributions - Fiscal Year Beginning January 1, 2009

The computed employer contribution rates for basic retirement benefits are as follows:

| Division         | Computed Employer Contribution Rates |                              |
|------------------|--------------------------------------|------------------------------|
|                  | % of Payroll                         | \$ Based on 12/31/07 Payroll |
| General County   | 13.26 %                              | \$2,259,832                  |
| County Agency    | 14.79                                | 252,891                      |
| Sheriff's Office | 17.58                                | 1,787,034                    |
| County Library   | 5.44                                 | 228,027                      |
| Road Commission  | 14.80                                | 789,315                      |
| Mental Health    | 4.89                                 | 301,853                      |
| Central Dispatch | 18.79                                | 216,415                      |

For detail please see page B-2.

**Please note that these costs reflect the 13<sup>th</sup> checks for the year 2008.**

The pensions provided by the Retirement System are valuable benefits. As covered members earn additional credit toward pensions and move closer to retirement, the System's liabilities grow. Employer contributions are required to pay for the increases in liabilities. All groups now have employer contribution requirements as the overfunding is being eliminated.

## 2. Contribution Rate Comparison

Required contribution rates have changed from the last valuation as follows:

| Division         | Computed Contributions |                 |
|------------------|------------------------|-----------------|
|                  | Actual 12/31/06        | Actual 12/31/07 |
| General County   | 13.05 %                | 13.26 %         |
| County Agency    | 12.87                  | 14.79           |
| Sheriff's Office | 15.33                  | 17.58           |
| County Library   | 4.94                   | 5.44            |
| Road Commission  | 15.37                  | 14.80           |
| Mental Health    | 6.14                   | 4.89            |
| Central Dispatch | 20.16                  | 18.79           |

### 3. Reasons for Change

There are three general reasons why contribution rates change from one valuation to the next. The first is a change in the benefits or eligibility conditions of the plan. The second is a change in the valuation assumptions used to predict future occurrences. The third is the effect of differences during the year between the Plan's actual experience and what the assumptions predicted.

The Corrections Officers included with the Sheriff's Office division had a benefit change since the last valuation. No other divisions had any changes in the benefits since the last actuarial valuation.

There were no assumption or method changes during the year.

The remaining changes were largely due to plan experience during the year.

### 4. 2007 Plan Experience

Plan experience during the year was favorable for most groups with an overall experience gain of \$497,009, or 0.29% of the beginning of year accrued liabilities. The gain/loss development is shown on page B-7 separately for each division.

All groups experienced favorable investment experience. Investment experience on the smoothed market basis was 9.24% compared to the 7% return assumed in your valuations. However, the favorable investment experience was tempered by unfavorable demographic experience for all divisions except for Central Dispatch.

|                             |                    |
|-----------------------------|--------------------|
| Investment Gain/(Loss)      | \$ 3,756,621       |
| Non-Investment Gain/(Loss)  | <u>(3,259,612)</u> |
| Gain/(Loss) from all causes | \$ 497,009         |

### 5. 2007 Funding Position

This year's valuation assets represent 97% of accrued liabilities; last year the ratio was 97%. The System's funding level remains healthy despite the unfavorable demographic experience.

## **6. Retiree Reserve Balance**

For all divisions except the Sheriff's Office, Central Dispatch and Road Commission the computed accrued liabilities for members who have already retired and their beneficiaries are larger than the reported balance of the retiree reserve accounts. Transfers will be necessary to balance the retiree reserves with the retiree liabilities. Details regarding the transfers are shown in Comment A of Section B.

## **7. Recommendations**

We recommend that the Board authorize the transfers described in Comment A of Section B of this report.

## **8. Conclusion**

As of this 2007 valuation, all historical, unfavorable investment returns have been reflected in the smoothed value of assets. Should the market value of assets continue its recent trend of favorable experience in the next year, we would expect to see a decrease in the employer contribution rates as only favorable experience is reflected in the smoothed asset value. Of course, demographic experience will also impact future contributions.

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## **SECTION B**

### **VALUATION RESULTS, COMMENTS AND COMPARABLE SCHEDULES**

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## **Financial Objective**

The financial objective of the Retirement System is to establish and receive contributions, expressed as a percentage of active member payroll, which will remain approximately level from year to year and will not have to be increased for future generations of citizens. This objective is stated in the Retirement System Resolution.

Your annual actuarial valuations determine how well the objective is being met.

The Board of Trustees of the Monroe County Employees Retirement System confirms that the System provides for payment of the required employer contribution as described in Section 20m of Michigan Public Act No. 728.

## **Contribution Rates**

The Retirement System is supported by contributions from the participating employers and from some of the members and by the investment income earned on System assets. The employers provide an actuarially determined contribution, the amount needed to meet the financial objective.

Contributions cover both (i) normal cost, and (ii) the financing of the unfunded accrued liability, if any, over a period of future years. The normal cost is the portion of System costs allocated to the current year by the valuation method described in Section D. The unfunded accrued liability is the portion of System costs not covered by present System assets and future normal costs.

The contribution requirements for the fiscal year beginning January 1, 2009 are presented on pages B-2 and B-3.

**Contributions to Provide Benefits**  
**December 31, 2007 Valuation**

| Contributions                | % of Active Payroll |                     |                     |                    |                     |                    |                     |
|------------------------------|---------------------|---------------------|---------------------|--------------------|---------------------|--------------------|---------------------|
|                              | General County      | County Agency       | Sheriff's Office    | County Library     | Road Comm.          | Mental Health      | Central Dispatch    |
| Normal cost of benefits:     |                     |                     |                     |                    |                     |                    |                     |
| Age & service                | 10.65 %             | 8.65 %              | 13.71 %             | 9.14 %             | 11.29 %             | 10.44 %            | 14.17 %             |
| Disability                   | 0.74                | 0.72                | 0.74                | 0.47               | 0.94                | 0.59               | 0.84                |
| Death in service             | 0.50                | 0.64                | 0.61                | 0.26               | 0.57                | 0.40               | 0.53                |
| Administrative expenses      | 0.50                | 0.50                | 0.50                | 0.50               | 0.50                | 0.50               | 0.50                |
| Totals                       | <u>12.39</u>        | <u>10.51</u>        | <u>15.56</u>        | <u>10.37</u>       | <u>13.30</u>        | <u>11.93</u>       | <u>16.04</u>        |
| Member contributions: Total* | 0.00                | 0.00                | 0.00                | 0.00               | 3.10                | 0.00               | 1.08                |
| Future refunds               | 0.00                | 0.00                | 0.00                | 0.00               | 0.27                | 0.00               | 0.08                |
| Available for pensions       | <u>0.00</u>         | <u>0.00</u>         | <u>0.00</u>         | <u>0.00</u>        | <u>2.83</u>         | <u>0.00</u>        | <u>1.00</u>         |
| Employer normal cost         | 12.39               | 10.51               | 15.56               | 10.37              | 10.47               | 11.93              | 15.04               |
| Amortization amounts         |                     |                     |                     |                    |                     |                    |                     |
| Plan and Assumption          | N/A                 | N/A                 | N/A                 | (2.78)             | N/A                 | (0.32)             | N/A                 |
| All other liabilities        | N/A                 | N/A                 | N/A                 | (2.15)             | N/A                 | (6.72)             | N/A                 |
| 20-Year Amortization         | 0.87                | 4.28                | 2.02                | N/A                | 4.33                | N/A                | 3.75                |
| Totals                       | <u>0.87</u>         | <u>4.28</u>         | <u>2.02</u>         | <u>(4.93)</u>      | <u>4.33</u>         | <u>(7.04)</u>      | <u>3.75</u>         |
| Computed Employer Rate       | <u><u>13.26</u></u> | <u><u>14.79</u></u> | <u><u>17.58</u></u> | <u><u>5.44</u></u> | <u><u>14.80</u></u> | <u><u>4.89</u></u> | <u><u>18.79</u></u> |

\* Weighted average of different rates.

Liabilities due to plan and assumption changes 1/1/93 and after were amortized over 5 years for the Library and 10 years for Mental Health. All other liabilities for these two divisions were recognized over an open period of 9 years. Effective with the 12/31/2005 valuation, unfunded liabilities for all other divisions are amortized over an open 20 year period, per the 6/26/2006 Board Meeting.

*The procedure for determining dollar contribution amounts* is shown on page B-3.

Page B-4 displays the unfunded accrued liabilities or asset surpluses that are amortized by the contribution rates shown above.

## **Converting Contribution Rates to Dollar Amounts**

For any period of time, the percent-of-payroll contribution rates must be converted to dollar amounts. We recommend one of the following procedures.

- (1) Contribute dollar amounts for a period, which are equal to the employer's percent-of-payroll contribution requirement multiplied by the covered active member payroll for the period. Adjustments should be made as necessary to exclude items of pay that are not covered compensation for Retirement System benefits and to include non-payroll payments that are covered compensation.
  
- (2) Contribute the dollar amounts recommended for each valuation group.

## **Timing of Contribution Payments**

The contributions in this report anticipate regular payments throughout the year. Examples would be at each payroll date or in 12 monthly installments. If the employer contribution pattern is significantly different, an adjustment to the costs may be appropriate. For example, a lump sum contribution at the beginning of the year is available for investment throughout the year and, therefore, ought to be somewhat smaller than 12 monthly payments. Similarly, a lump sum contribution at the end of the year will not generate any investment income that year and so must be greater than 12 monthly payments.

## Determination of Unfunded Accrued Liability

|   | General<br>County | County<br>Agency | Sheriff's<br>Office | County<br>Library | Road<br>Comm. | Mental<br>Health | Central<br>Dispatch |
|---|-------------------|------------------|---------------------|-------------------|---------------|------------------|---------------------|
| A. Accrued Liability                          |                   |                  |                     |                   |               |                  |                     |
| 1. For retirees and beneficiaries             |                   |                  |                     |                   |               |                  |                     |
| a. Monthly Pension                            | \$ 30,818,948     | \$ 3,293,000     | \$ 19,730,855       | \$ 3,538,435      | \$ 13,725,599 | \$ 7,678,395     | \$ 1,214,939        |
| b. 2007 13 <sup>th</sup> Check Payments       | 58,999            | 5,766            | 33,277              | 23,500            | 58,500        | 0                | 1,958               |
| 2. For vested terminated members              | 3,987,874         | 0                | 347,693             | 575,955           | 248,104       | 3,577,571        | 314,823             |
| 3. For present active members                 |                   |                  |                     |                   |               |                  |                     |
| a. Value of expected future benefit payments  | 62,356,933        | 5,649,290        | 39,653,798          | 11,618,143        | 18,438,779    | 13,530,584       | 4,292,274           |
| b. Value of future normal costs               | 17,420,116        | 1,640,102        | 19,007,103          | 3,698,332         | 7,480,068     | 6,517,205        | 2,169,753           |
| c. Active member liability: (a) - (b)         | 44,936,817        | 4,009,188        | 20,646,695          | 7,919,811         | 10,958,711    | 7,013,379        | 2,122,521           |
| 4. Total                                      | 79,802,638        | 7,307,954        | 40,758,520          | 12,057,701        | 24,990,914    | 18,269,345       | 3,654,241           |
| B. Valuation Assets                           | 77,708,030        | 6,275,203        | 37,861,764          | 13,222,784        | 21,732,870    | 21,474,768       | 3,044,763           |
| C. Unfunded Accrued Liability:<br>(A.4) - (B) | 2,094,608         | 1,032,751        | 2,896,756           | (1,165,083)       | 3,258,044     | (3,205,423)      | 609,478             |
| D. Funded percentage: (B)/(A.4)               | 97.4%             | 85.9%            | 92.9%               | 109.7%            | 87.0%         | 117.5%           | 83.3%               |

## Comments

**Comment A:** We developed the value of anticipated future benefit payments to retired members and their beneficiaries. We then compared this accrued liability to the reported value of the retirement reserve account. The figures below compare the retired liabilities and reserves for each division.

| Division         | Accrued Liability | Retiree Reserve | Unfunded Retiree Liability |
|------------------|-------------------|-----------------|----------------------------|
| General County   | \$30,818,948      | \$29,373,040    | \$ 1,445,908               |
| County Agency    | 3,293,000         | 2,559,144       | 733,856                    |
| Sheriff's Office | 19,730,855        | 19,964,823      | (233,968)                  |
| County Library   | 3,538,435         | 3,371,059       | 167,376                    |
| Road Commission  | 13,725,599        | 13,929,979      | (204,380)                  |
| Mental Health    | 7,678,395         | 3,583,446       | 4,094,949                  |
| Central Dispatch | 1,214,939         | 1,230,871       | (15,932)                   |

Amounts should be transferred from the employer reserves to the retiree reserves to cover the unfunded amount for each division except for the Sheriff's Office and Central Dispatch.

**Comment B:** Overall experience during 2007 was favorable. The gain/loss determination by division is on page B-7. The determination of the investment gain/loss is shown on page B-8.

**Comment C:** This valuation considers only the basic retirement benefits provided by the Retirement System. The retiree health benefits provided to County employees are not considered in this valuation.

**Comment D:** We are aware that certain amounts have been authorized or are under consideration for special payments as a result of the various 13<sup>th</sup> check programs. This valuation includes \$182,000 in liabilities for estimated special payments.

As payments of these amounts during 2008 are already included in this valuation, these payments will not increase the costs shown in this report.

**Comment E:** On December 30, 2002 Michigan Public Act 728 became effective. This act sets new standards for all Michigan State and Local government retirement systems. In particular, the Act requires that supplemental actuarial analysis be performed by the System's actuary (including an analysis of the long term costs associated with any proposed pension benefit change) and provided to the Retirement Board and the decision-making body that will approve the proposed pension benefit change. This analysis is required at least 7 days before a proposed pension benefit change is adopted. There are additional requirements related to the confirmation of receipt by the System of the required employer contributions.

**Comment F:** This actuarial valuation reflects the 20 year rolling amortization for the unfunded actuarial accrued liabilities for all under-funded divisions. This amortization policy was adopted by the Retirement Board at their meeting on June 26, 2006. This Change was first reflected in the December 31, 2005 actuarial valuation.

**Comment G:** POAM/Corrections Officers Unit I receives a 2.5% multiplier. In addition, Corrections Officers Unit I and II employees no longer contribute to the Retirement System. These benefit changes increased the employer contribution for the Sheriff's Office by 2.87% of payroll.

## Development of Experience Gain (Loss) Year Ended December 31, 2007

Actual experience will never (except by coincidence) exactly match assumed experience. It is hoped that gains and losses will cancel each other over a period of years but sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below.

|   | Gain/Loss for 2007 |                  |                     |                   |                    |                  |                     |
|---|--------------------|------------------|---------------------|-------------------|--------------------|------------------|---------------------|
|   | General<br>County  | County<br>Agency | Sheriff's<br>Office | County<br>Library | Road<br>Commission | Mental<br>Health | Central<br>Dispatch |
| (1) UAAL* at start of year  | \$1,361,317        | \$564,761        | \$ 3,001,879        | \$(1,125,521)     | \$3,511,568        | \$(3,335,233)    | \$ 739,442          |
| (2) Normal cost   | 1,997,348          | 167,667          | 1,450,116           | 392,847           | 682,368            | 704,243          | 176,032             |
| (3) Actual contributions  | 1,900,950          | 198,057          | 1,634,847           | 189,723           | 952,925            | 207,052          | 185,613             |
| (4) Interest accrual  | 98,628             | 38,482           | 203,740             | (71,758)          | 236,448            | (216,264)        | 51,429              |
| (5) Expected UAAL before changes:<br>(1) + (2) - (3) + (4)                        | 1,556,343          | 572,853          | 3,020,888           | (994,155)         | 3,477,459          | (3,054,306)      | 781,290             |
| (6) Change from revised assumptions   | 0                  | 0                | 657,768             | 0                 | 0                  | 0                | 0                   |
| (7) Change from revised asset<br>method   | 0                  | 0                | 0                   | 0                 | 0                  | 0                | 0                   |
| (8) Expected UAAL after changes:<br>(5)+(6)+(7)                                   | 1,556,343          | 572,853          | 3,678,656           | (994,155)         | 3,477,459          | (3,054,306)      | 781,290             |
| (9) Actual UAAL at end of year  | 2,094,608          | 1,032,751        | 2,896,756           | (1,165,083)       | 3,258,044          | (3,205,423)      | 609,478             |
| (10) Gain (loss): (8) - (9)   | (538,265)          | (459,898)        | 781,900             | 170,928           | 219,415            | 151,117          | 171,812             |
| (11) Gain (loss) as percent of<br>actuarial accrued liability<br>at start of year | (0.73)%            | (7.06)%          | 2.03%               | 1.53%             | 0.92%              | 0.90%            | 4.97%               |

\* *Unfunded actuarial accrued liability*

**Development of Valuation Investment Gain (Loss)**  
**Year Ended December 31, 2007**  
**(Total System Assets)**

The valuation assumes a 7.0% return on valuation assets. Net investment return in excess of 7.0% represents a gain. If net investment return falls short of 7.0%, the difference between an income of 7.0% and the net return represents a loss.

|  |               |
|--|---------------|
| (1) Net 2007 valuation investment income           | \$ 15,485,758 |
| (2) Average Valuation Assets                       | 167,559,095   |
| (3) Expected investment income: $(.07) \times (2)$ | 11,729,137    |
| (4) Gain (loss): $(1) - (3)$                       | 3,756,621     |

Please note that this analysis uses asset values and investment income as defined for the actuarial valuation. It may not, therefore, be appropriate as a measure of manager performance.



## Financial Objective Tests

Testing how well the financial objective is being met can be done in many ways. There is no single all-encompassing test.

Contribution rates designed to remain level will do so, as long as:

- (1) the indicated contributions are paid on a timely basis, and
- (2) experience, as it develops, is in accord with the assumptions used in the calculations.

Of course changes in benefits or assumptions will cause discontinuities. But, if these two conditions are satisfied, and the system continues indefinitely, the ultimate test will be met -- the system will be able to meet all promised benefit payments when due.

Since nothing continues in its projected pattern indefinitely, short-term tests of achievement are appropriate. One such test is a comparison of the System's present assets to:

- (1) benefit values attributable to present retired members and beneficiaries;
- (2) benefit values attributable to vested terminated members;
- (3) benefit values allocated to present active members on account of service already rendered (the value of benefits that would be incurred by the System if future service was honored solely for the purpose of qualifying for a benefit and determining final average compensation).

In a system that has been using level percent-of-payroll financing discipline, items (1) and (2) will be fully covered by present assets except in unusual demographic or benefit development circumstances. Item (3) is seldom fully covered.

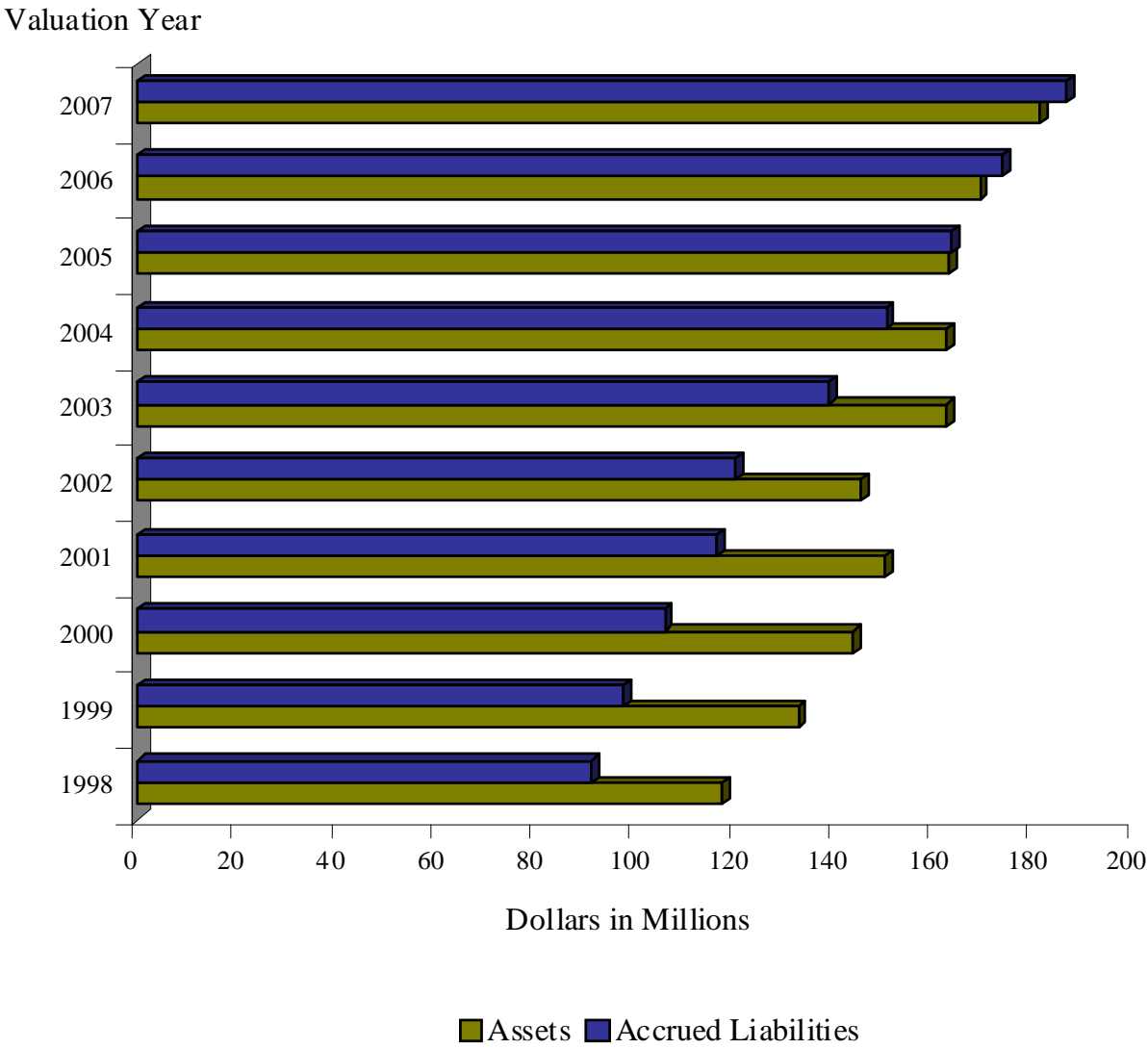
## Liabilities, Assets and Funded Percents

| Valuation Date | Dollar Amounts in Thousands |          |          |           | Percent Covered |               |          |        |
|----------------|-----------------------------|----------|----------|-----------|-----------------|---------------|----------|--------|
|                | Item (1)                    | Item (2) | Item (3) | Total     | Assets          | Items (1)+(2) | Item (3) | Total  |
| 12-31-93 *     | \$33,882                    | \$1,188  | \$37,775 | \$ 72,845 | \$ 69,634       | 100.0%        | 91.5 %   | 95.6 % |
| 12-31-94 *     | 32,956                      | 1,418    | 42,903   | 77,277    | 75,138          | 100.0         | 95.0     | 97.2   |
| 12-31-95 *     | 33,544                      | 1,523    | 47,136   | 82,203    | 83,546          | 100.0         | 102.8    | 101.6  |
| 12-31-96 *     | 26,059                      | 1,925    | 50,466   | 78,450    | 93,062          | 100.0         | 129.0    | 118.6  |
| 12-31-97 *     | 28,700                      | 2,242    | 56,157   | 87,099    | 105,789         | 100.0         | 133.3    | 121.5  |
| 12-31-98 *     | 31,463                      | 3,145    | 56,528   | 91,136    | 117,699         | 100.0         | 147.0    | 129.1  |
| 12-31-99 *     | 32,247                      | 3,378    | 62,026   | 97,651    | 132,837         | 100.0         | 156.7    | 136.0  |
| 12-31-00 *     | 35,797                      | 4,082    | 65,949   | 105,825   | 143,765         | 100.0         | 157.5    | 135.6  |
| 12-31-01 *     | 37,296                      | 4,764    | 74,300   | 116,360   | 150,305         | 100.0         | 145.7    | 129.2  |
| 12-31-02 *#    | 45,207                      | 5,585    | 74,861   | 125,653   | 148,405         | 100.0         | 130.4    | 118.1  |
| 12-31-03 *#    | 49,666                      | 6,005    | 83,471   | 139,142   | 162,683         | 100.0         | 128.2    | 116.9  |
| 12-31-04 *     | 55,011                      | 6,781    | 88,718   | 150,510   | 162,726         | 100.0         | 113.8    | 108.1  |
| 12-31-05       | 65,187                      | 7,371    | 91,084   | 163,642   | 163,152         | 100.0         | 99.5     | 99.7   |
| 12-31-06       | 74,012                      | 7,925    | 92,064   | 174,001   | 169,284         | 100.0         | 94.9     | 97.3   |
| 12-31-07 *     | 80,000                      | 9,052    | 97,789   | 186,841   | 181,320         | 100.0         | 94.4     | 97.0   |

\* Retirement System amended.

# Actuarial assumptions and methods were revised.

# Assets & Accrued Liabilities



1998 assets equaled 129% of accrued liabilities.  
 2007 assets equaled 97% of accrued liabilities.

## Computed Employer Contributions Comparative Schedule

| Valuation<br>Date<br>December 31 | Active<br>Members | Valuation<br>Payroll | Employer Contributions<br>As Payroll Percents |                  |                     |                   |                    |                  |                     |
|----------------------------------|-------------------|----------------------|---|------------------|---------------------|-------------------|--------------------|------------------|---------------------|
|                                  |                   |                      | General                                       | County<br>Agency | Sheriff's<br>Office | County<br>Library | Road<br>Commission | Mental<br>Health | Central<br>Dispatch |
| 1993 #                           | 867               | \$23,999,619         | 6.34%   | \$%              | ^%                  | 5.05%             | 24.03              | ¢%               | +%                  |
| 1994 #                           | 862               | 24,966,463           | 6.30  | \$               |                     | 4.06              | 20.86              | ¢                | +                   |
| 1995 #                           | 892               | 26,408,334           | 5.55  | \$               |                     | 1.59              | 18.52              | ¢                | +                   |
| 1996 #                           | 870               | 26,643,235           | 2.79  | \$               | 0.00                | 0.00              | 16.18              | 3.16             | +                   |
| 1997 #                           | 890               | 28,814,126           | 0.00  | \$               | 0.00                | 0.00              | 11.34              | 3.00             | 0.00                |
| 1998 #                           | 874               | 29,309,641           | 0.00  | \$               | 0.00                | 0.00              | 3.08               | 0.86             | 2.24                |
| 1999 #                           | 918               | 31,064,894           | 0.21  | \$               | 0.00                | 0.00              | 0.00               | 0.00             | 0.00                |
| 2000 #                           | 953               | 35,059,040           | 0.00  | \$               | 0.00                | 0.00              | 0.00               | 0.00             | 2.52                |
| 2001 #                           | 961               | 35,250,392           | 0.00  | 0.00             | 0.00                | 0.00              | 0.00               | 0.00             | 4.92                |
| 2002 #*                          | 942               | 35,895,185           | 1.60  | 0.00             | 8.54                | 0.00              | 6.72               | 0.00             | 14.62               |
| 2003 *                           | 958               | 37,862,618           | 3.42  | 0.00             | 9.06                | 0.00              | 10.73              | 0.00             | 15.50               |
| 2004 *                           | 950               | 38,712,508           | 7.11  | 3.54             | 12.72               | 0.00              | 15.03              | 0.05             | 19.43               |
| 2005                             | 974               | 41,047,874           | 12.17   | 12.12            | 14.78               | 4.77              | 15.01              | 3.41             | 18.67               |
| 2006                             | 981               | 41,821,305           | 13.05   | 12.87            | 15.33               | 4.94              | 15.37              | 6.14             | 20.16               |
| 2007 #                           | 961               | 43,152,156           | 13.26   | 14.79            | 17.58               | 5.44              | 14.80              | 4.89             | 18.79               |

# Retirement System amended.

\* Revised actuarial assumptions or method.

¢ Prior to 1996 the Mental Health group was included with General group.

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\$ Prior to 2001 the County Agency group was included with the General group.

^ Prior to 1996, the Sheriff's Office group was included with the General group.

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## **SECTION C**

### **SUMMARY OF BENEFIT PROVISIONS AND VALUATION DATA**

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**Brief Summary of Benefit Provisions**  
**(December 31, 2007)**

| <b>Eligibility</b>   | <b>Amount</b>  |
|--|--|
| <b>REGULAR RETIREMENT</b>  |  |
| <b>General, Library, Road Commission and Mental Health:</b> Age 55 with 30 or more years of service or age 60 with 8 or more years of service. | General County: Service multiplied by 2.5% of final average earnings. Multiplier is 2.0% for Library and 2.25% for Mental Health and Road Commission (certain Road Commission members have a 2.0% multiplier). |
| <b>Sheriff's Office and Central Dispatch:</b> Age 50 with 25 years of service or age 60 with 8 or more years of service.                       | Service multiplied by 2.5% of final average earnings.<br><br>Highest 3 consecutive years out of last 10 for all groups.<br><br>Maximum Benefit: 75% of final average earnings.                                 |
| <b>DEFERRED RETIREMENT</b>   |  |
| 8 or more years of service.  | Computed as a regular retirement but based upon service and final average earnings at termination date.  |
| <b>NON-DUTY DEATH IN SERVICE</b>   |  |
| 15 years of service or age 60 with 10 years of service.  | Computed as a regular retirement but actuarially reduced in accordance with a 100% joint and survivor election.  |
| <b>DUTY DEATH IN SERVICE</b>   |  |
| No age or service requirements.  | Computed as regular retirement but computed as if the member had at least 15 years of service. Must be in receipt of worker's compensation.  |
| <b>NON-DUTY DISABILITY</b>   |  |
| 10 or more years of service.   | Computed as a regular retirement.  |

**Brief Summary of Benefit Provisions**  
**(December 31, 2007)**

| <b>Eligibility</b>               | <b>Amount</b>  |
|----------------------------------|--|
| <b>DUTY DISABILITY</b>           |  |
| No age or service requirements.  | Computed as a regular retirement benefit but computed as if the member had at least 10 years of service.   |
| <b>POST-RETIREMENT INCREASES</b> |  |
|                                  | Beginning January 1, 1994 for the Road Commission Local 543 members, a program of discretionary annual increases was begun.  |
|                                  | Other Payments   |
|                                  | The System may from year to year pay a “13 <sup>th</sup> check”. The 13 <sup>th</sup> check will be based upon investment earnings that are in excess of the assumed level on assets to cover retiree liabilities. |
| <b>MEMBER CONTRIBUTIONS</b>      |  |
| Central Dispatch Supervisors:    | 3.0% of the first \$7,800 and 5.0% of excess.  |
| Road Commission:                 | 3.1%.  |
| All Others:                      | None.  |

## Retiree and Beneficiary Comparative Schedule

| Valuation<br>Date<br>December 31 | Added#@         |                    | Removed |                    | End of Year |                    | % Incr. in<br>Annual<br>Pensions | Ratio of Number<br>Active Members to<br>Number Retired | Annual Pensions<br>as a % of<br>Active Payroll |
|----------------------------------|-----------------|--------------------|---------|--------------------|-------------|--------------------|----------------------------------|--|--|
|                                  | No.             | Annual<br>Pensions | No.     | Annual<br>Pensions | No.         | Annual<br>Pensions |                                  |  |  |
| 1984                             | 14              | \$ 68,181          | 3       | \$ 7,455           | 82          | \$ 234,041         | 40.1 %                           | 9  | 1.7 %  |
| 1985                             | 26              | 119,352            | 3       | 13,691             | 105         | 339,702            | 45.1                             | 7  | 2.3  |
| 1986                             | 12              | 98,696             | 3       | 9,279              | 114         | 429,119            | 26.3                             | 6  | 2.7  |
| 1987                             | 13              | 95,181             | 7       | 17,543             | 120         | 506,757            | 18.1                             | 6  | 2.9  |
| 1988                             | 25              | 185,464            | 5       | 27,285             | 140         | 664,936            | 31.2                             | 6  | 3.5  |
| 1989                             | 9               | 77,128             | 3       | 3,742              | 146         | 738,322            | 11.1                             | 6  | 3.7  |
| 1990                             | 23              | 212,335            | 3       | 10,063             | 166         | 940,594            | 27.4                             | 5  | 4.3  |
| 1991                             | 22              | 215,357            | 4       | 7,603              | 184         | 1,148,348          | 21.5                             | 5  | 4.9  |
| 1992                             | 13              | 353,438            | 1       | 15,774             | 196         | 1,486,012          | 29.4                             | 4  | 5.3  |
| 1993                             | 57              | 871,050            | 4       | 11,283             | 249         | 2,345,779          | 57.9                             | 3  | 9.8  |
| 1994                             | 11              | 127,455            | 5       | 33,167             | 255         | 2,440,067          | 4.0                              | 3  | 9.8  |
| 1995                             | 15              | 128,773            | 8       | 45,620             | 262         | 2,523,220          | 3.4                              | 3  | 9.6  |
| 1996                             | 15              | 155,424            | 13      | 101,327            | 264         | 2,577,317          | 2.1                              | 3  | 9.7  |
| 1997 <sup>¢</sup>                | 32 <sup>¢</sup> | 349,817            | 7       | 84,785             | 289         | 2,842,351          | 10.3                             | 3  | 9.9  |
| 1998                             | 29              | 356,408            | 13      | 94,770             | 305         | 3,103,989          | 9.2                              | 3  | 10.6   |
| 1999                             | 20              | 245,927            | 19      | 108,557            | 306         | 3,241,359          | 4.4                              | 3  | 10.4   |
| 2000                             | 27              | 471,307            | 12      | 97,495             | 321         | 3,615,170          | 11.5                             | 3  | 11.0   |
| 2001                             | 18              | 303,760            | 12      | 126,214            | 327         | 3,792,716          | 4.9                              | 3  | 10.8   |
| 2002                             | 37              | 851,345            | 14      | 129,016            | 350         | 4,515,045          | 19.0                             | 3  | 12.6   |
| 2003                             | 24              | 367,108            | 10      | 81,849             | 364         | 4,800,304          | 6.3                              | 3  | 12.7   |
| 2004                             | 50              | 808,337            | 32      | 410,843            | 382         | 5,197,798          | 8.3                              | 2  | 13.4   |
| 2005                             | 64              | 1,196,093          | 12      | 161,273            | 434         | 6,232,617          | 19.9                             | 2  | 15.2   |
| 2006                             | 41              | 897,712            | 11      | 103,828            | 464         | 7,026,501          | 12.7                             | 2  | 16.8   |
| 2007                             | 51              | 772,282            | 18      | 147,009            | 497         | 7,651,774          | 8.9                              | 2  | 17.7   |

# Includes beneficiaries of deceased retirees.

@ Includes post-retirement adjustments.

¢ Includes 8 1998 Library retirees and 6 pre 1997 retirees not previously reported.



**Retirees and Beneficiaries December 31, 2007**  
**Tabulated by Attained Age**  
**General County**

| Attained Age | Age & Service |                     | Disability |                   | Survivor |                  | Totals     |                     |
|--------------|---------------|---------------------|------------|-------------------|----------|------------------|------------|---------------------|
|              | No.           | Annual Benefits     | No.        | Annual Benefits   | No.      | Annual Benefits  | No.        | Annual Benefits     |
| Under 30     |               |                     |            |                   | 1        | \$ 7,196         | 1          | \$ 7,196            |
| 35-39        |               |                     |            |                   |          |                  |            |                     |
| 40-44        |               |                     |            |                   |          |                  |            |                     |
| 45-49        |               |                     | 2          | \$ 10,133         |          |                  | 2          | 10,133              |
| 50-54        | 2             | \$ 74,194           | 3          | 49,766            |          |                  | 5          | 123,960             |
| 55-59        | 13            | 411,426             | 6          | 70,978            | 1        | 23,058           | 20         | 505,462             |
| 60-64        | 37            | 655,910             | 4          | 35,314            | 1        | 9,012            | 42         | 700,236             |
| 65-69        | 43            | 620,710             | 2          | 20,672            | 1        | 13,812           | 46         | 655,194             |
| 70-74        | 31            | 335,900             | 2          | 6,461             |          |                  | 33         | 342,361             |
| 75-79        | 29            | 396,885             | 1          | 7,232             |          |                  | 30         | 404,117             |
| 80-84        | 20            | 177,985             |            |                   |          |                  | 20         | 177,985             |
| 85-89        | 21            | 145,784             |            |                   |          |                  | 21         | 145,784             |
| 90+          | 7             | 69,794              |            |                   |          |                  | 7          | 69,794              |
| <b>Total</b> | <b>203</b>    | <b>\$ 2,888,588</b> | <b>20</b>  | <b>\$ 200,556</b> | <b>4</b> | <b>\$ 53,078</b> | <b>227</b> | <b>\$ 3,142,222</b> |

Average Age at Retirement: 61.1 years.

Average Age Now: 70.5 years.

## Retirees and Beneficiaries December 31, 2007

### Tabulated by Attained Age

#### County Agency

| Attained Age | Age & Service |                   | Disability |                  | Survivor |                  | Totals    |                   |
|--------------|---------------|-------------------|------------|------------------|----------|------------------|-----------|-------------------|
|              | No.           | Annual Benefits   | No.        | Annual Benefits  | No.      | Annual Benefits  | No.       | Annual Benefits   |
| Under 30     |               |                   |            |                  |          |                  |           |                   |
| 35-39        |               |                   |            |                  |          |                  |           |                   |
| 40-44        |               |                   | 1          | \$ 24,158        |          |                  | 1         | \$ 24,158         |
| 45-49        |               |                   |            |                  |          |                  |           |                   |
| 50-54        |               |                   |            |                  |          |                  |           |                   |
| 55-59        | 2             | \$ 62,419         |            |                  |          |                  | 2         | 62,419            |
| 60-64        | 5             | 124,551           |            |                  | 1        | \$ 12,454        | 6         | 137,005           |
| 65-69        |               |                   |            |                  |          |                  |           |                   |
| 70-74        | 2             | 17,457            |            |                  |          |                  | 2         | 17,457            |
| 75-79        | 4             | 33,857            |            |                  |          |                  | 4         | 33,857            |
| 80-84        | 1             | 5,875             |            |                  | 1        | 5,337            | 2         | 11,212            |
| 85-89        | 3             | 17,495            |            |                  |          |                  | 3         | 17,495            |
| 90+          | 1             | 3,464             |            |                  |          |                  | 1         | 3,464             |
| <b>Total</b> | <b>18</b>     | <b>\$ 265,118</b> | <b>1</b>   | <b>\$ 24,158</b> | <b>2</b> | <b>\$ 17,791</b> | <b>21</b> | <b>\$ 307,067</b> |

Average Age at Retirement: 59.8 years.

Average Age Now: 70.6 years.

**Retirees and Beneficiaries December 31, 2007**  
**Tabulated by Attained Age**  
**Sheriff's Office**

| Attained Age | Age & Service |                     | Disability |                   | Survivor |                  | Totals    |                     |
|--------------|---------------|---------------------|------------|-------------------|----------|------------------|-----------|---------------------|
|              | No.           | Annual Benefits     | No.        | Annual Benefits   | No.      | Annual Benefits  | No.       | Annual Benefits     |
| Under 30     |               |                     |            |                   |          |                  |           |                     |
| 35-39        |               |                     |            |                   |          |                  |           |                     |
| 40-44        |               |                     | 1          | \$ 10,208         |          |                  | 1         | \$ 10,208           |
| 45-49        |               |                     | 3          | 58,119            |          |                  | 3         | 58,119              |
| 50-54        | 5             | \$ 185,372          | 3          | 41,035            |          |                  | 8         | 226,407             |
| 55-59        | 17            | 592,294             | 3          | 43,804            | 2        | \$ 26,161        | 22        | 662,259             |
| 60-64        | 13            | 300,460             | 3          | 16,991            |          |                  | 16        | 317,451             |
| 65-69        | 7             | 156,626             | 4          | 32,771            |          |                  | 11        | 189,397             |
| 70-74        | 9             | 158,857             |            |                   |          |                  | 9         | 158,857             |
| 75-79        | 5             | 86,940              |            |                   |          |                  | 5         | 86,940              |
| 80-84        | 4             | 26,573              | 1          | 5,708             | 1        | 21,815           | 6         | 54,096              |
| 85-89        | 2             | 8,570               |            |                   |          |                  | 2         | 8,570               |
| 90+          |               |                     |            |                   |          |                  |           |                     |
| <b>Total</b> | <b>62</b>     | <b>\$ 1,515,692</b> | <b>18</b>  | <b>\$ 208,636</b> | <b>3</b> | <b>\$ 47,976</b> | <b>83</b> | <b>\$ 1,772,304</b> |

Average Age at Retirement: 53.9 years.

Average Age Now: 63.4 years.

**Retirees and Beneficiaries December 31, 2007**  
**Tabulated by Attained Age**  
**Library**

| Attained Age | Age & Service |                   | Disability |                 | Survivor |                 | Totals    |                   |
|--------------|---------------|-------------------|------------|-----------------|----------|-----------------|-----------|-------------------|
|              | No.           | Annual Benefits   | No.        | Annual Benefits | No.      | Annual Benefits | No.       | Annual Benefits   |
| Under 30     |               |                   |            |                 |          |                 |           |                   |
| 35-39        |               |                   |            |                 |          |                 |           |                   |
| 40-44        |               |                   |            |                 |          |                 |           |                   |
| 45-49        |               |                   |            |                 |          |                 |           |                   |
| 50-54        |               |                   |            |                 |          |                 |           |                   |
| 55-59        |               |                   |            |                 |          |                 |           |                   |
| 60-64        | 6             | \$ 114,399        |            |                 |          |                 | 6         | \$ 114,399        |
| 65-69        | 6             | 63,389            |            |                 |          |                 | 6         | 63,389            |
| 70-74        | 7             | 82,392            |            |                 |          |                 | 7         | 82,392            |
| 75-79        | 5             | 85,583            |            |                 |          |                 | 5         | 85,583            |
| 80-84        | 4             | 20,982            |            |                 |          |                 | 4         | 20,982            |
| 85-89        | 2             | 6,563             |            |                 |          |                 | 2         | 6,563             |
| 90+          | 1             | 1,228             |            |                 |          |                 | 1         | 1,228             |
| <b>Total</b> | <b>31</b>     | <b>\$ 374,536</b> |            |                 |          |                 | <b>31</b> | <b>\$ 374,536</b> |

Average Age at Retirement: 60.6 years.

Average Age Now: 72.6 years.

**Retirees and Beneficiaries December 31, 2007**  
**Tabulated by Attained Age**  
**Road Commission**

| Attained Age | Age & Service |                     | Disability |                  | Survivor |                  | Totals    |                     |
|--------------|---------------|---------------------|------------|------------------|----------|------------------|-----------|---------------------|
|              | No.           | Annual Benefits     | No.        | Annual Benefits  | No.      | Annual Benefits  | No.       | Annual Benefits     |
| Under 30     |               |                     |            |                  |          |                  |           |                     |
| 35-39        |               |                     |            |                  |          |                  |           |                     |
| 40-44        |               |                     |            |                  |          |                  |           |                     |
| 45-49        |               |                     |            |                  |          |                  |           |                     |
| 50-54        | 1             | \$ 32,683           | 1          | \$ 13,741        |          |                  | 2         | \$ 46,424           |
| 55-59        | 3             | 80,323              | 2          | 9,072            |          |                  | 5         | 89,395              |
| 60-64        | 17            | 303,847             | 2          | 30,672           |          |                  | 19        | 334,519             |
| 65-69        | 11            | 237,190             | 1          | 6,673            | 1        | \$ 11,139        | 13        | 255,002             |
| 70-74        | 11            | 199,599             |            |                  |          |                  | 11        | 199,599             |
| 75-79        | 13            | 190,799             |            |                  | 3        | 31,468           | 16        | 222,267             |
| 80-84        | 11            | 97,640              |            |                  |          |                  | 11        | 97,640              |
| 85-89        | 1             | 11,250              |            |                  |          |                  | 1         | 11,250              |
| 90+          |               |                     |            |                  |          |                  |           |                     |
| <b>Total</b> | <b>68</b>     | <b>\$ 1,153,331</b> | <b>6</b>   | <b>\$ 60,158</b> | <b>4</b> | <b>\$ 42,607</b> | <b>78</b> | <b>\$ 1,256,096</b> |

Average Age at Retirement: 58.5 years.

Average Age Now: 69.9 years.

**Retirees and Beneficiaries December 31, 2007**  
**Tabulated by Attained Age**  
**Mental Health Authority**

| Attained Age | Age & Service |                   | Disability |                 | Survivor |                  | Totals    |                   |
|--------------|---------------|-------------------|------------|-----------------|----------|------------------|-----------|-------------------|
|              | No.           | Annual Benefits   | No.        | Annual Benefits | No.      | Annual Benefits  | No.       | Annual Benefits   |
| Under 30     |               |                   |            |                 |          |                  |           |                   |
| 35-39        |               |                   |            |                 |          |                  |           |                   |
| 40-44        |               |                   |            |                 |          |                  |           |                   |
| 45-49        |               |                   |            |                 |          |                  |           |                   |
| 50-54        | 7             | \$ 87,799         |            |                 | 1        | \$ 19,195        | 8         | \$ 106,994        |
| 55-59        | 11            | 182,372           |            |                 | 1        | 16,654           | 12        | 199,026           |
| 60-64        | 12            | 174,441           |            |                 |          |                  | 12        | 174,441           |
| 65-69        | 10            | 143,696           |            |                 |          |                  | 10        | 143,696           |
| 70-74        | 4             | 41,412            |            |                 |          |                  | 4         | 41,412            |
| 75-79        | 3             | 25,827            |            |                 |          |                  | 3         | 25,827            |
| 80-84        |               |                   |            |                 |          |                  |           |                   |
| 85-89        | 1             | 3,889             |            |                 |          |                  | 1         | 3,889             |
| 90+          |               |                   |            |                 |          |                  |           |                   |
| <b>Total</b> | <b>48</b>     | <b>\$ 659,436</b> |            |                 | <b>2</b> | <b>\$ 35,849</b> | <b>50</b> | <b>\$ 695,285</b> |

Average Age at Retirement: 59.4 years.

Average Age Now: 62.4 years.

**Retirees and Beneficiaries December 31, 2007**  
**Tabulated by Attained Age**  
**Central Dispatchers**

| Attained Age | Age & Service |                  | Disability |                  | Survivor |                 | Totals   |                   |
|--------------|---------------|------------------|------------|------------------|----------|-----------------|----------|-------------------|
|              | No.           | Annual Benefits  | No.        | Annual Benefits  | No.      | Annual Benefits | No.      | Annual Benefits   |
| Under 30     |               |                  |            |                  |          |                 |          |                   |
| 35-39        |               |                  |            |                  |          |                 |          |                   |
| 40-44        |               |                  | 1          | \$ 16,739        |          |                 | 1        | \$ 16,739         |
| 45-49        |               |                  |            |                  |          |                 |          |                   |
| 50-54        | 1             | \$ 27,942        |            |                  |          |                 | 1        | 27,942            |
| 55-59        |               |                  | 1          | 12,726           |          |                 | 1        | 12,726            |
| 60-64        | 1             | 11,306           |            |                  |          |                 | 1        | 11,306            |
| 65-69        | 3             | 35,547           |            |                  |          |                 | 3        | 35,547            |
| 70-74        |               |                  |            |                  |          |                 |          |                   |
| 75-79        |               |                  |            |                  |          |                 |          |                   |
| 80-84        |               |                  |            |                  |          |                 |          |                   |
| 85-89        |               |                  |            |                  |          |                 |          |                   |
| 90+          |               |                  |            |                  |          |                 |          |                   |
| <b>Total</b> | <b>5</b>      | <b>\$ 74,795</b> | <b>2</b>   | <b>\$ 29,465</b> |          |                 | <b>7</b> | <b>\$ 104,260</b> |

Average Age at Retirement: 55.0 years.

Average Age Now: 59.2 years.

**Inactive Vested Members December 31, 2007**  
**Tabulated by Attained Age**

| Attained<br>Age | Age & Service |                    |
|-----------------|---------------|--------------------|
|                 | No.           | Annual<br>Benefits |
| 34              | 2             | \$ 21,521          |
| 35              | 1             | 7,665              |
| 36              | 1             | 7,071              |
| 37              | 3             | 24,675             |
| 39              | 5             | 44,402             |
| 40              | 2             | 15,247             |
| 41              | 4             | 29,976             |
| 42              | 5             | 32,494             |
| 43              | 6             | 58,217             |
| 44              | 2             | 11,574             |
| 45              | 11            | 84,888             |
| 46              | 7             | 52,491             |
| 47              | 6             | 70,802             |
| 48              | 2             | 17,122             |
| 49              | 2             | 24,288             |
| 50              | 8             | 115,430            |
| 51              | 7             | 75,706             |
| 52              | 6             | 69,320             |
| 53              | 6             | 94,240             |
| 54              | 12            | 121,685            |
| 55              | 3             | 53,089             |
| 56              | 13            | 126,205            |
| 57              | 9             | 84,083             |
| 58              | 5             | 53,013             |
| 59              | 8             | 104,478            |
| 60              | 3             | 54,365             |
| <b>Total</b>    | <b>139</b>    | <b>\$1,454,047</b> |

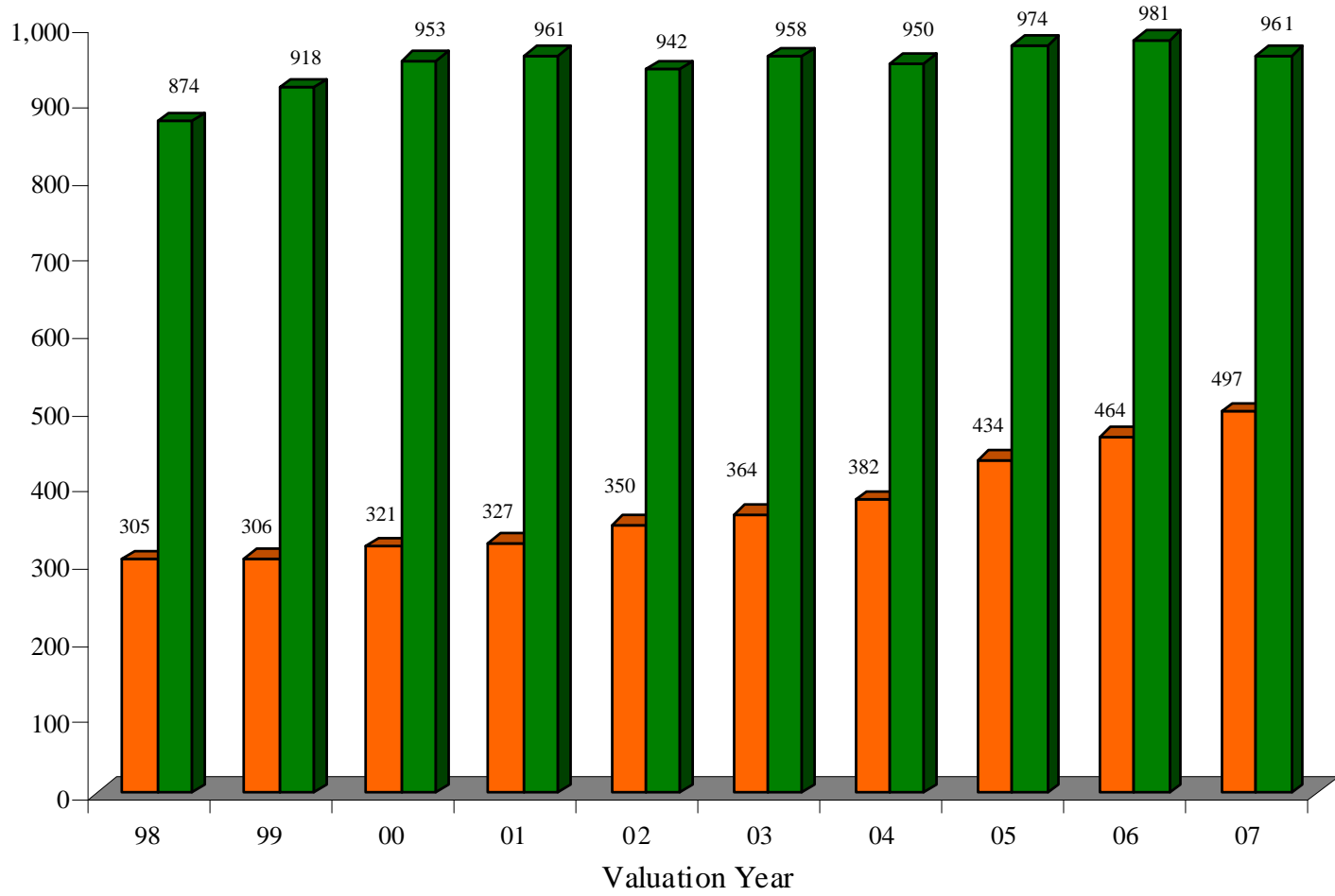
Average Age at Termination: 41.4 years.

Average Age Now: 49.8 years.



# Active Members & Benefit Recipients

Covered Persons



Benefit Recipients Active Members

## Active Members December 31, 2007

| Division            | Total      |                     |
|---------------------|------------|---------------------|
|                     | No.        | Annual Pays         |
| General County      | 387        | \$16,068,772        |
| County Agency       | 34         | 1,612,183           |
| Sheriff's Office    | 177        | 9,584,376           |
| County Library      | 106        | 3,952,186           |
| Road Commission     | 102        | 5,028,501           |
| Mental Health       | 131        | 5,820,187           |
| Central Dispatchers | 24         | 1,085,950           |
| <b>Total</b>        | <b>961</b> | <b>\$43,152,156</b> |

## Comparative Schedule

| Valuation<br>Date<br>December 31 | Active<br>Members | Valuation<br>Payroll | Average |         |          | % Increase |
|----------------------------------|-------------------|----------------------|---------|---------|----------|------------|
|                                  |                   |                      | Age     | Service | Pay      |            |
| 1983                             | 623               | \$11,273,667         | 39.0    | 7.0     | \$18,096 | 1.9 %      |
| 1984                             | 699               | 13,979,850           | 41.0    | 9.2     | 20,000   | 10.5       |
| 1985                             | 714               | 14,933,754           | 40.6    | 8.9     | 20,916   | 4.6        |
| 1986                             | 727               | 15,848,530           | 40.8    | 9.0     | 21,800   | 4.2        |
| 1987                             | 765               | 17,550,003           | 41.4    | 9.4     | 22,941   | 5.2        |
| 1988                             | 796               | 19,142,880           | 41.1    | 9.4     | 24,049   | 4.8        |
| 1989                             | 817               | 20,190,049           | 41.5    | 9.7     | 24,712   | 2.8        |
| 1990                             | 836               | 21,801,469           | 41.3    | 9.6     | 26,078   | 5.5        |
| 1991                             | 873               | 23,521,982           | 41.4    | 9.6     | 26,944   | 3.3        |
| 1992                             | 861               | 24,393,164           | 41.9    | 10.1    | 28,331   | 5.1        |
| 1993                             | 867               | 23,999,619           | 41.1    | 9.3     | 27,681   | (2.3)      |
| 1994                             | 862               | 24,966,463           | 41.7    | 9.9     | 28,963   | (4.6)      |
| 1995                             | 892               | 26,408,333           | 41.8    | 10.1    | 29,606   | (2.2)      |
| 1996                             | 870               | 26,643,235           | 42.3    | 10.8    | 30,624   | 3.4        |
| 1997                             | 890               | 28,814,126           | 42.6    | 10.9    | 32,375   | 5.7        |
| 1998                             | 874               | 29,309,641           | 42.5    | 10.8    | 33,335   | 3.6        |
| 1999                             | 918               | 31,064,894           | 42.8    | 10.7    | 33,840   | 1.5        |
| 2000                             | 953               | 32,749,688           | 42.8    | 10.5    | 34,365   | 1.6        |
| 2001                             | 961               | 35,250,392           | 42.8    | 10.5    | 36,681   | 6.7        |
| 2002                             | 942               | 35,895,185           | 43.3    | 10.8    | 38,105   | 3.9        |
| 2003                             | 958               | 37,862,618           | 43.9    | 11.1    | 39,523   | 3.7        |
| 2004                             | 950               | 38,712,508           | 44.0    | 11.2    | 40,750   | 3.1        |
| 2005                             | 974               | 41,047,874           | 44.1    | 10.8    | 42,144   | 3.4        |
| 2006                             | 981               | 41,821,305           | 44.1    | 10.8    | 42,631   | 1.2        |
| 2007                             | 961               | 43,152,156           | 44.4    | 11.0    | 44,903   | 5.3        |

Certain Road Commission employees were included in this schedule for the first time in 1984. Certain other Road Commission employees were included in this schedule for the first time in 1987.

**Active General County Members December 31, 2007**  
**by Attained Age and Years of Service**

| Attained Age  | Years of Service to Valuation Date |           |           |           |           |           |           | Totals     |                     |
|---------------|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|---------------------|
|               | 0-4                                | 5-9       | 10-14     | 15-19     | 20-24     | 25-29     | 30 Plus   | No.        | Valuation Payroll   |
| 20-24         | 8                                  |           |           |           |           |           |           | 8          | \$ 213,268          |
| 25-29         | 19                                 | 4         | 1         |           |           |           |           | 24         | 752,581             |
| 30-34         | 13                                 | 14        | 4         |           |           |           |           | 31         | 1,195,414           |
| 35-39         | 5                                  | 7         | 9         | 3         |           |           |           | 24         | 982,799             |
| 40-44         | 9                                  | 17        | 7         | 7         | 9         |           |           | 49         | 1,998,830           |
| 45-49         | 10                                 | 17        | 11        | 6         | 9         | 9         | 2         | 64         | 2,799,063           |
| 50-54         | 12                                 | 12        | 8         | 14        | 12        | 14        | 6         | 78         | 3,313,744           |
| 55-59         | 11                                 | 13        | 11        | 12        | 17        | 8         | 5         | 77         | 3,167,621           |
| 60            | 1                                  | 1         | 1         |           | 1         |           | 1         | 5          | 224,050             |
| 61            |                                    | 1         | 3         | 2         |           | 3         | 1         | 10         | 687,240             |
| 62            |                                    | 1         | 1         | 1         |           |           |           | 3          | 159,704             |
| 63            |                                    | 1         |           | 1         |           |           |           | 2          | 128,999             |
| 64            | 1                                  | 1         |           |           |           |           |           | 2          | 45,651              |
| 65            |                                    |           |           |           | 1         | 1         | 1         | 3          | 178,235             |
| 66            | 1                                  | 1         |           |           | 1         |           | 1         | 4          | 175,724             |
| 67            | 1                                  |           |           |           |           |           |           | 1          | 15,498              |
| 70            | 1                                  |           |           |           |           |           |           | 1          | 15,498              |
| 72            |                                    |           | 1         |           |           |           |           | 1          | 14,853              |
| <b>Totals</b> | <b>92</b>                          | <b>90</b> | <b>57</b> | <b>46</b> | <b>50</b> | <b>35</b> | <b>17</b> | <b>387</b> | <b>\$16,068,772</b> |

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 47.3 years.

Service: 13.1 years.

Annual Pay: \$41,521.

**Active County Agency Members December 31, 2007**  
**by Attained Age and Years of Service**

| Attained Age  | Years of Service to Valuation Date |          |          |          |          |          |         | Totals    |                    |
|---------------|------------------------------------|----------|----------|----------|----------|----------|---------|-----------|--------------------|
|               | 0-4                                | 5-9      | 10-14    | 15-19    | 20-24    | 25-29    | 30 Plus | No.       | Valuation Payroll  |
| 20-24         | 1                                  |          |          |          |          |          |         | 1         | \$ 44,880          |
| 25-29         | 3                                  |          |          |          |          |          |         | 3         | 116,977            |
| 30-34         | 2                                  |          | 1        |          |          |          |         | 3         | 134,355            |
| 35-39         | 2                                  |          |          |          |          |          |         | 2         | 88,903             |
| 40-44         |                                    | 1        | 1        | 2        | 2        |          |         | 6         | 290,453            |
| 45-49         | 3                                  | 1        | 3        | 3        | 3        | 2        |         | 15        | 749,091            |
| 50-54         |                                    |          |          |          | 1        |          |         | 1         | 43,435             |
| 55-59         |                                    |          |          | 1        |          | 1        |         | 2         | 99,770             |
| 68            |                                    |          | 1        |          |          |          |         | 1         | 44,319             |
| <b>Totals</b> | <b>11</b>                          | <b>2</b> | <b>6</b> | <b>6</b> | <b>6</b> | <b>3</b> |         | <b>34</b> | <b>\$1,612,183</b> |

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 43.1 years.

Service: 13.0 years.

Annual Pay: \$47,417.

**Active Sheriff's Office Members December 31, 2007  
by Attained Age and Years of Service**

| Attained Age  | Years of Service to Valuation Date |           |           |           |          |          |          | Totals     |                    |
|---------------|------------------------------------|-----------|-----------|-----------|----------|----------|----------|------------|--------------------|
|               | 0-4                                | 5-9       | 10-14     | 15-19     | 20-24    | 25-29    | 30 Plus  | No.        | Valuation Payroll  |
| 20-24         | 2                                  |           |           |           |          |          |          | 2          | \$ 79,145          |
| 25-29         | 20                                 | 7         |           |           |          |          |          | 27         | 1,374,567          |
| 30-34         | 10                                 | 23        | 5         |           |          |          |          | 38         | 2,078,876          |
| 35-39         | 9                                  | 17        | 10        | 2         |          |          |          | 38         | 2,082,061          |
| 40-44         | 1                                  | 12        | 4         | 10        |          |          |          | 27         | 1,509,194          |
| 45-49         |                                    | 6         | 4         | 5         | 3        | 3        |          | 21         | 1,164,156          |
| 50-54         |                                    | 5         | 2         | 2         |          | 3        | 2        | 14         | 782,856            |
| 55-59         | 1                                  | 3         |           |           | 1        | 1        | 1        | 7          | 353,227            |
| 61            |                                    | 1         | 1         |           |          |          |          | 2          | 118,563            |
| 67            |                                    |           | 1         |           |          |          |          | 1          | 41,731             |
| <b>Totals</b> | <b>43</b>                          | <b>74</b> | <b>27</b> | <b>19</b> | <b>4</b> | <b>7</b> | <b>3</b> | <b>177</b> | <b>\$9,584,376</b> |

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 38.7 years.

Service: 9.7 years.

Annual Pay: \$54,149.

**Active County Library Members December 31, 2007**  
**by Attained Age and Years of Service**

| Attained Age  | Years of Service to Valuation Date |           |          |          |          |          |          | Totals     |                    |
|---------------|------------------------------------|-----------|----------|----------|----------|----------|----------|------------|--------------------|
|               | 0-4                                | 5-9       | 10-14    | 15-19    | 20-24    | 25-29    | 30 Plus  | No.        | Valuation Payroll  |
| 20-24         | 7                                  |           |          |          |          |          |          | 7          | \$ 213,031         |
| 25-29         | 4                                  |           |          |          |          |          |          | 4          | 155,456            |
| 30-34         | 4                                  | 1         |          |          |          |          |          | 5          | 173,788            |
| 35-39         | 5                                  | 2         | 1        |          |          |          |          | 8          | 331,900            |
| 40-44         | 5                                  | 3         |          | 3        |          | 1        |          | 12         | 389,426            |
| 45-49         | 9                                  | 3         |          | 1        | 3        | 3        |          | 19         | 695,871            |
| 50-54         | 7                                  | 6         |          |          | 1        | 2        | 1        | 17         | 648,592            |
| 55-59         | 8                                  | 2         | 3        | 3        | 1        | 1        | 4        | 22         | 929,933            |
| 60            |                                    | 1         |          |          |          | 1        |          | 2          | 64,996             |
| 61            | 2                                  |           |          |          |          |          |          | 2          | 56,252             |
| 62            | 1                                  |           |          |          |          |          | 1        | 2          | 66,011             |
| 63            |                                    | 1         |          |          | 1        |          |          | 2          | 66,342             |
| 64            | 1                                  |           |          | 1        |          |          | 1        | 3          | 119,414            |
| 69            | 1                                  |           |          |          |          |          |          | 1          | 41,174             |
| <b>Totals</b> | <b>54</b>                          | <b>19</b> | <b>4</b> | <b>8</b> | <b>6</b> | <b>8</b> | <b>7</b> | <b>106</b> | <b>\$3,952,186</b> |

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 47.3 years.

Service: 9.7 years.

Annual Pay: \$37,285.

**Active Road Commission Members December 31, 2007**  
**by Attained Age and Years of Service**

| Attained Age  | Years of Service to Valuation Date |           |           |          |           |          |          | Totals     |                    |
|---------------|------------------------------------|-----------|-----------|----------|-----------|----------|----------|------------|--------------------|
|               | 0-4                                | 5-9       | 10-14     | 15-19    | 20-24     | 25-29    | 30 Plus  | No.        | Valuation Payroll  |
| 25-29         | 1                                  | 2         |           |          |           |          |          | 3          | \$ 130,938         |
| 30-34         | 4                                  | 3         | 1         |          |           |          |          | 8          | 413,797            |
| 35-39         | 5                                  | 6         | 7         | 1        |           |          |          | 19         | 972,030            |
| 40-44         | 1                                  | 8         | 7         | 4        | 4         |          |          | 24         | 1,157,781          |
| 45-49         | 3                                  | 7         | 2         | 2        | 1         |          |          | 15         | 712,248            |
| 50-54         | 4                                  | 5         | 5         | 1        | 6         | 1        | 1        | 23         | 1,146,130          |
| 55-59         | 1                                  |           | 2         |          | 1         |          | 1        | 5          | 208,355            |
| 60            | 1                                  |           |           |          | 2         |          |          | 3          | 176,422            |
| 61            |                                    |           |           | 1        |           |          |          | 1          | 43,975             |
| 68            | 1                                  |           |           |          |           |          |          | 1          | 66,825             |
| <b>Totals</b> | <b>21</b>                          | <b>31</b> | <b>24</b> | <b>9</b> | <b>14</b> | <b>1</b> | <b>2</b> | <b>102</b> | <b>\$5,028,501</b> |

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 44.4 years.

Service: 11.7 years.

Annual Pay: \$49,299.

**Active Mental Health Members December 31, 2007**  
**by Attained Age and Years of Service**

| Attained Age  | Years of Service to Valuation Date |           |           |           |          |       |         | Totals     |                    |
|---------------|------------------------------------|-----------|-----------|-----------|----------|-------|---------|------------|--------------------|
|               | 0-4                                | 5-9       | 10-14     | 15-19     | 20-24    | 25-29 | 30 Plus | No.        | Valuation Payroll  |
| 20-24         | 2                                  |           |           |           |          |       |         | 2          | \$ 85,161          |
| 25-29         | 16                                 | 3         |           |           |          |       |         | 19         | 693,028            |
| 30-34         | 7                                  | 5         | 2         |           |          |       |         | 14         | 558,277            |
| 35-39         | 6                                  | 10        | 4         | 1         |          |       |         | 21         | 954,929            |
| 40-44         | 3                                  | 6         |           | 5         | 3        |       |         | 17         | 799,228            |
| 45-49         | 7                                  | 3         | 3         | 4         | 2        |       |         | 19         | 900,853            |
| 50-54         | 6                                  | 3         | 1         | 3         |          |       |         | 13         | 541,317            |
| 55-59         | 8                                  | 7         | 2         | 1         |          |       |         | 18         | 826,837            |
| 60            |                                    | 1         |           |           |          |       |         | 1          | 44,285             |
| 61            | 3                                  |           |           |           |          |       |         | 3          | 231,988            |
| 62            |                                    |           |           |           |          |       |         |            |                    |
| 63            | 1                                  | 1         | 1         |           |          |       |         | 3          | 143,323            |
| 64            | 1                                  |           |           |           |          |       |         | 1          | 40,961             |
| <b>Totals</b> | <b>60</b>                          | <b>39</b> | <b>13</b> | <b>14</b> | <b>5</b> |       |         | <b>131</b> | <b>\$5,820,187</b> |

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 42.7 years.

Service: 7.1 years.

Annual Pay: \$44,429.



**Active Central Dispatch Members December 31, 2007  
by Attained Age and Years of Service**

| Attained Age  | Years of Service to Valuation Date |          |          |          |          |       |         | Totals    |                    |
|---------------|------------------------------------|----------|----------|----------|----------|-------|---------|-----------|--------------------|
|               | 0-4                                | 5-9      | 10-14    | 15-19    | 20-24    | 25-29 | 30 Plus | No.       | Valuation Payroll  |
| 20-24         | 1                                  |          |          |          |          |       |         | 1         | \$ 37,408          |
| 25-29         | 4                                  |          |          |          |          |       |         | 4         | 158,193            |
| 30-34         |                                    | 4        |          |          |          |       |         | 4         | 172,170            |
| 35-39         | 2                                  | 1        | 2        |          |          |       |         | 5         | 235,527            |
| 40-44         | 1                                  | 1        |          |          |          |       |         | 2         | 94,733             |
| 45-49         |                                    | 1        |          |          | 1        |       |         | 2         | 106,932            |
| 50-54         |                                    |          | 1        | 1        |          |       |         | 2         | 103,025            |
| 55-59         | 1                                  |          | 1        |          | 2        |       |         | 4         | 177,962            |
| <b>Totals</b> | <b>9</b>                           | <b>7</b> | <b>4</b> | <b>1</b> | <b>3</b> |       |         | <b>24</b> | <b>\$1,085,950</b> |

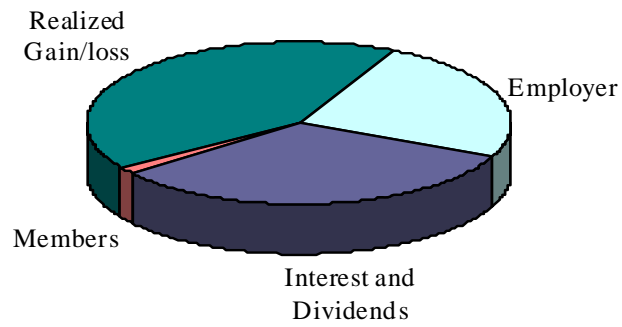
While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 39.8 years.

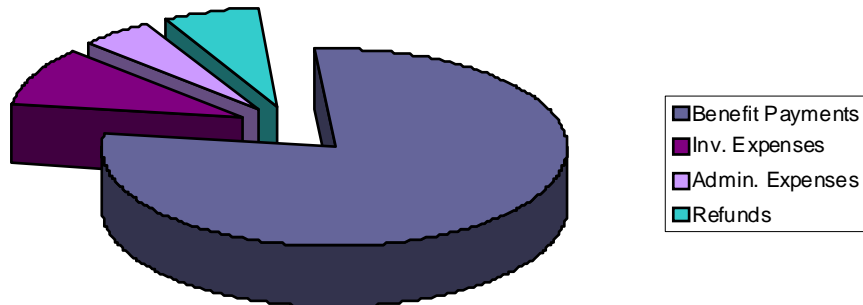
Service: 9.0 years.

Annual Pay: \$45,248.

**Market Value Income and Disbursements  
During Year Ended December 31, 2007  
(System Totals)**



**Source of Income \$19,899,894**



**Disbursements by Type \$9,641,471**

**Summary of Financial Information Furnished for Valuation  
(System Totals)**

**Market Value**

**Revenues and Expenditures**

| <b>REVENUES:</b>                        |                      | <b>% of Revenue</b>          |
|---|----------------------|------------------------------|
| a. Member contributions                 | \$ 358,382           | 1.8%                         |
| b. Employer contributions               | 4,910,785            | 24.7%                        |
| c. Interest and Dividends               | 6,388,050            | 32.1%                        |
| d. Realized and unrealized gain (loss)  | <u>8,242,677</u>     | <u>41.4%</u>                 |
| <br>e. Total revenues                   | <br>19,899,894       | <br>100.0%                   |
| <br><b>EXPENDITURES:</b>                |                      | <br><b>% of Expenditures</b> |
| a. Refunds of member contributions      | 630,321              | 6.5%                         |
| b. Retirement benefits paid             | 7,599,023            | 78.8%                        |
| c. Administrative expense               | 489,164              | 5.1%                         |
| d. Investment expense                   | <u>922,963</u>       | <u>9.6%</u>                  |
| <br>e. Total expenditures               | <br><u>9,641,471</u> | <br>100.0%                   |
| <br><b>RESERVE INCREASE:</b>            |                      |                              |
| Total revenues minus total expenditures | <u>\$ 10,258,423</u> |                              |

**Market Value Assets**

|                              |                                 |
|------------------------------|---------------------------------|
| Cash and cash equivalents*   | \$ 980,518                      |
| Other short-term investments | 9,397,687                       |
| Bonds - U.S. Guaranteed      | 25,243,463                      |
| - Other                      | 49,502,601                      |
| Stocks                       | 97,832,818                      |
| Real Estate                  | <u>4,833,587</u>                |
| <br>Total Assets             | <br><u><u>\$187,790,674</u></u> |

\* Net of payables, if any.

## Development of Pension Valuation Assets

| Valuation Date December 31:                                | 2003          | 2004          | 2005          | 2006          | 2007          |
|--|---------------|---------------|---------------|---------------|---------------|
| 1. Beginning of Year Assets                                |               |               |               |               |               |
| a) Market Value  | \$134,372,521 | \$148,405,099 | \$155,536,633 | \$163,292,118 | \$177,532,251 |
| b) Valuation Assets  | 163,356,521   | 163,079,708   | 162,725,639   | 163,151,579   | 169,283,765   |
| 2. End of Year Market Value Assets                         | 148,405,099   | 155,536,633   | 163,292,118   | 177,532,251   | 187,790,674   |
| 3. Net Additions to Market Value                           |               |               |               |               |               |
| a) Net Contributions                                       | 538,266       | 1,721,323     | 2,363,369     | 3,529,751     | 5,269,167     |
| b) Net Investment Income = (3d) - (3a) - (3c)              | 19,091,240    | 11,794,716    | 12,611,576    | 18,315,996    | 13,707,764    |
| c) Benefit Payments, Refunds, and Admin Expenses           | (5,596,928)   | (6,384,505)   | (7,219,460)   | (7,605,614)   | (8,718,508)   |
| d) Total Additions to Market Value = (2) - (1a)            | 14,032,578    | 7,131,534     | 7,755,485     | 14,240,133    | 10,258,423    |
| 4. Average Valuation Assets =<br>(1b) + .5 x [(3a) + (3c)] | 160,827,190   | 160,748,117   | 160,297,594   | 161,113,648   | 167,559,095   |
| 5. Expected Income at Valuation Rate = 7% x (4)            | 11,257,903    | 11,252,368    | 11,220,832    | 11,277,955    | 11,729,137    |
| 6. Gain (Loss) = (3b) - (5)                                | 7,833,337     | 542,348       | 1,390,744     | 7,038,041     | 1,978,627     |
| 7. Phased-In Recognition of Investment Return              |               |               |               |               |               |
| a) Current Year: 0.2 x (6)                                 | 1,566,667     | 108,470       | 278,149       | 1,407,608     | 395,725       |
| b) First Prior Year  | (4,430,802)   | 1,566,667     | 108,470       | 278,149       | 1,407,608     |
| c) Second Prior Year                                       | (3,461,287)   | (4,430,802)   | 1,566,667     | 108,470       | 278,149       |
| d) Third Prior Year  | (726,302)     | (3,461,287)   | (4,430,802)   | 1,566,667     | 108,470       |
| e) Fourth Prior Year                                       | 575,670       | (726,303)     | (3,461,285)   | (4,430,800)   | 1,566,669     |
| f) Total Recognized Investment Gain                        | (6,476,054)   | (6,943,255)   | (5,938,801)   | (1,069,906)   | 3,756,621     |
| 8. Change in Valuation Assets<br>(3a) + (3c) + (5) + (7f)  | (276,813)     | (354,069)     | 425,940       | 6,132,186     | 12,036,417    |
| 9. End of Year Assets                                      |               |               |               |               |               |
| a) Market Value = (2)                                      | 148,405,099   | 155,536,633   | 163,292,118   | 177,532,251   | 187,790,674   |
| b) Valuation Assets = (1b) + (8)                           | 163,079,708   | 162,725,639   | 163,151,579   | 169,283,765   | 181,320,182   |
| c) Difference Between Market & Valuation Assets            | (14,674,609)  | (7,189,006)   | 140,539       | 8,248,486     | 6,470,492     |
| 10. Recognized Rate of Return = [(5) + (7f)] / (4)         | 2.97%         | 2.68%         | 3.30%         | 6.34%         | 9.24%         |
| 11. Market Rate of Return = 2 x (3b) / [(1a) + (2) - (3b)] | 14.48%        | 8.07%         | 8.24%         | 11.36%        | 7.80%         |

The valuation assets developed under this smoothing method were not used in calculating the contributions for years prior to 2003. They were only used to develop the actuarial value of assets for 2003 and later years. For years prior to 2003, a different asset smoothing method was used.

**Allocation of Pension Valuation Assets  
December 31, 2007 Valuation**

|  | Allocation of Retirement Systems Assets for 2007 |                  |                     |                   |                    |                  |                     |
|--|--|------------------|---------------------|-------------------|--------------------|------------------|---------------------|
|  | General<br>County                                | County<br>Agency | Sheriff's<br>Office | County<br>Library | Road<br>Commission | Mental<br>Health | Central<br>Dispatch |
| (1) Valuation assets at start of year  | \$72,357,506                                     | \$5,951,627      | \$ 35,455,580       | \$12,323,916      | \$20,416,049       | \$20,059,595     | \$ 2,719,492        |
| (2) Employee contributions   | 5,178  | 4,171            | 168,610             | 4,365             | 163,111            | 0                | 12,947              |
| (3) Employer contributions   | 1,895,772  | 193,886          | 1,466,237           | 185,358           | 789,814            | 207,052          | 172,666             |
| (4) Benefits paid  | 2,857,060  | 346,640          | 2,022,270           | 383,611           | 1,328,180          | 554,178          | 107,084             |
| (5) Refund of contributions  | 112,496  | 50,688           | 342,280             | 0                 | 110,597            | 14,260           | 0                   |
| (6) Administrative expense<br>Allocated on BOY asset value                       | 209,086  | 17,198           | 102,453             | 35,611            | 58,994             | 57,964           | 7,858               |
| (7) Average valuation assets<br>[(1) + 0.5*{(2) + (3) - (4) - (5) - (6)}]        | 71,718,659                                       | 5,843,393        | 35,039,502          | 12,209,167        | 20,143,626         | 19,849,920       | 2,754,828           |
| (8) Investment income<br>Allocated on average valuation assets                   | 6,628,216  | 540,045          | 3,238,340           | 1,128,367         | 1,861,667          | 1,834,523        | 254,600             |
| (9) Valuation assets at end of year<br>[(1) + (2) + (3) - (4) - (5) - (6) + (7)] | 77,708,030                                       | 6,275,203        | 37,861,764          | 13,222,784        | 21,732,870         | 21,474,768       | 3,044,763           |
| (10) Total revenues [(2) + (3) +(8)]   | 8,529,166  | 738,102          | 4,873,187           | 1,318,090         | 2,814,592          | 2,041,575        | 440,213             |
| Percentage of revenue attributable to:   |  |                  |                     |                   |                    |                  |                     |
| Employee contributions   | 0.1%   | 0.6%             | 3.5%                | 0.3%              | 5.8%               | 0.0%             | 2.9%                |
| Employer contributions   | 22.2%  | 26.3%            | 30.1%               | 14.1%             | 28.1%              | 10.1%            | 39.2%               |
| Investment income  | 77.7%  | 73.1%            | 66.4%               | 85.6%             | 66.1%              | 89.9%            | 57.9%               |
| (11) Total expenditures [(4) + (5) +(6)]   | 3,178,642  | 414,526          | 2,467,003           | 419,222           | 1,497,771          | 626,402          | 114,942             |
| Percentage of expenditure attributable to:                                       |  |                  |                     |                   |                    |                  |                     |
| Benefits paid  | 89.9%  | 83.7%            | 81.9%               | 91.5%             | 88.7%              | 88.4%            | 93.2%               |
| Refund of contributions  | 3.5%   | 12.2%            | 13.9%               | 0.0%              | 7.4%               | 2.3%             | 0.0%                |
| Administrative expenses  | 6.6%   | 4.1%             | 4.2%                | 8.5%              | 3.9%               | 9.3%             | 6.8%                |

**Monroe County**  
**General County, County Agency, Sheriff's and Dispatchers**  
**13<sup>th</sup> Check Excess Reserve Fund**

| <b>Year</b> | <b>(a)<br/>Return on<br/>AVA</b> | <b>(b)<br/>Assumed<br/>Return on<br/>AVA</b> | <b>(c)<br/>Net Rate<br/>of Return<br/>(a)-(b)</b> | <b>(d)<br/>Retiree<br/>Liabilities<br/>as of 12/31</b> | <b>(e)<br/>Annual Transfer<br/>Amount<br/>Before Limit<br/>(c) * (d)</b> | <b>(f)<br/>Fund<br/>Balance<br/>BOY</b> | <b>(g)<br/>Distributions<br/>During<br/>Year</b> | <b>Fund Balance EOY 1/<br/>(h)<br/>Before<br/>Limit<br/>(e) + (f) + (g)</b> | <b>(i)<br/>After<br/>Limit</b> |
|-------------|----------------------------------|--|---|--|--|---|--|---|--------------------------------|
| 1997        | 14.92%                           | 7.00%  | 7.92%   | 16,877,725   | \$ 1,336,716   | -                                       | -  | \$1,336,716   | \$1,000,000                    |
| 1998        | 13.24%                           | 7.00%  | 6.24%   | 19,099,094   | 1,191,783  | \$ 1,000,000                            | \$ (100,000)                                     | 2,091,783   | 1,000,000                      |
| 1999        | 15.34%                           | 7.00%  | 8.34%   | 20,011,926   | 1,668,995  | 1,000,000                               | (101,767)  | 2,567,228   | 1,000,000                      |
| 2000        | 10.90%                           | 7.00%  | 3.90%   | 22,335,226   | 871,074  | 1,000,000                               | (100,000)  | 1,771,074   | 1,000,000                      |
| 2001        | 7.02%                            | 7.00%  | 0.02%   | 22,261,453   | 4,452  | 1,000,000                               | (106,087)  | 898,365   | 898,365                        |
| 2002        | 1.92%                            | 7.00%  | 0.00%   | 29,537,898   | -  | 898,365                                 | (100,000)  | 798,365   | 798,365                        |
| 2003        | 2.97%                            | 7.00%  | 0.00%   | 32,530,519   | -  | 798,365                                 | (100,000)  | 698,365   | 698,365                        |
| 2004        | 2.68%                            | 7.00%  | 0.00%   | 37,200,540   | -  | 698,365                                 | (100,000)  | 598,365   | 598,365                        |
| 2005        | 3.30%                            | 7.00%  | 0.00%   | 45,437,890   | -  | 598,365                                 | (100,000)  | 498,365   | 498,365                        |
| 2006        | 6.34%                            | 7.00%  | 0.00%   | 53,127,878   | -  | 498,365                                 | (100,000)  | 398,365   | 398,365                        |
| 2007        | 9.24%                            | 7.00%  | 2.24%   | 55,057,742   | 1,233,293  | 398,365                                 | (100,000)  | 1,531,658   | 1,000,000                      |

1/ Based on the 13<sup>th</sup> Check provisions of crediting 0% to Excess Reserve Fund.

**Monroe County  
Road Commission  
13<sup>th</sup> Check Excess Reserve Fund**

| <b>Year</b> | <b>(a)<br/>Return on<br/>AVA</b> | <b>(b)<br/>Assumed<br/>Return on<br/>AVA</b> | <b>(c)<br/>Net Rate<br/>of Return<br/>(a)-(b)</b> | <b>(d)<br/>Mean Value<br/>of Retiree<br/>Liabilities<br/>as of 12/31</b> | <b>(e)<br/>Annual Transfer<br/>Amount<br/>Before Limit<br/>(c) * (d)</b> | <b>(f)<br/>Fund<br/>Balance<br/>BOY</b> | <b>(g)<br/>Distributions<br/>During<br/>Year</b> | <b>Fund Balance EOY 3/<br/>(h)<br/>Before<br/>Limit<br/>(e) + (f) + (g)</b> | <b>(i)<br/>After<br/>Limit</b> |
|-------------|----------------------------------|--|---|--|--|---|--|---|--------------------------------|
| 2000        | 10.90%                           | 7.00%  | 3.90%   | 1/ \$ 8,929,569  | \$ 648,253   | 2/ \$ 0                                 | \$ (30,000)                                      | \$ 618,253  | \$ 300,000                     |
| 2001        | 7.02%                            | 7.00%  | 0.02%   | 10,006,405   | 2,001  | 300,000                                 | (30,000)   | 272,001   | 272,001                        |
| 2002        | 1.92%                            | 7.00%  | 0.00%   | 11,008,526   | -  | 272,001                                 | (45,005)   | 226,996   | 226,996                        |
| 2003        | 2.97%                            | 7.00%  | 0.00%   | 11,728,123   | -  | 226,996                                 | (39,618)   | 187,378   | 187,378                        |
| 2004        | 2.68%                            | 7.00%  | 0.00%   | 12,200,993   | -  | 187,378                                 | (44,227)   | 143,151   | 143,151                        |
| 2005        | 3.30%                            | 7.00%  | 0.00%   | 12,726,404   | -  | 143,151                                 | (46,959)   | 96,192  | 96,192                         |
| 2006        | 6.34%                            | 7.00%  | 0.00%   | 13,526,748   | -  | 96,192                                  | (54,213)   | 41,979  | 41,979                         |
| 2007        | 9.24%                            | 7.00%  | 2.24%   | 13,827,789   | 309,742  | 41,979                                  | (58,500)   | 293,221   | 293,221                        |

1/ Average of retiree liabilities as of beginning and end of year.

2/ Includes initial transfer amount of \$300,000 made on 12/6/2000.

3/ Based on the 13th check provision of crediting 0% to the Excess Reserve Fund.

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## **SECTION D**

FINANCIAL PRINCIPLES, ACTUARIAL VALUATION  
PROCESS, ACTUARIAL COST METHODS, AND  
ACTUARIAL ASSUMPTIONS

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## Valuation Methods

**Actuarial Cost Method.** Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

- i) the annual normal costs for each individual active member, payable from the hire date to the date of retirement, are sufficient to accumulate to the value of the member's benefit earned.
- ii) each annual normal cost is a constant percentage of the member's year by year projected covered pay.

**Asset Valuation Method.** Last year's valuation assets are increased by contributions and regular investment income and reduced by refunds, benefit payments and expenses. The difference between the actual investment return and the expected return is phased in over a 5 year period. The result must be no more than 20% from the market value of assets.

**Financing of Unfunded Actuarial Accrued Liabilities.** Unfunded actuarial accrued liabilities were amortized by level (principal & interest combined) percent-of-payroll contributions as follows:

| <u>Group</u>  | <u>Liability</u>                  | <u>Remaining Years</u> | <u>Type of Period</u> |
|---|-----------------------------------|------------------------|-----------------------|
| General County, County Agency, Sheriff's Office,<br>Road Commission, and Central Dispatch | All liabilities                   | 20                     | Open                  |
| County Library and Mental Health  | All other                         | 9                      | Open                  |
|   |                                   |                        |                       |
| County Library  | Special Changes<br>1/93 and after | 5                      | Closed                |
| Mental Health   | “ “                               | 10                     | Closed                |

## Actuarial Assumptions Used for the Valuation

**Investment Return** (net of investment expenses).

3.0% per year in excess of pay inflation. If pay inflation matches the assumption of 4.0%, this implies a 7% rate of return.

This assumption is used to equate the value of payments due at different points in time and was first used for the December 31, 2002 valuation. Approximate rates of investment return, for the purpose of comparisons with assumed rates, are shown below. Actual increases in average active member pay are also shown for comparative purposes.

|                           | Year Ended December 31 |      |       |       |       | 5 Year Average* |
|---------------------------|------------------------|------|-------|-------|-------|-----------------|
|                           | 2007                   | 2006 | 2005  | 2004  | 2003  |                 |
| Rate of Investment Return | 9.2%                   | 6.3% | 3.3%  | 2.7%  | 3.0%  | 4.9%            |
| Increase in Average Pay   | 5.3                    | 1.2  | 3.4   | 3.1   | 3.7   | 3.3%            |
| Real Rate of Return       | 3.9                    | 5.1  | (0.1) | (0.4) | (0.7) | 1.5             |

\* Compound rate of increase.

The nominal rate of return was computed using the approximate formula  $i = I$  divided by  $1/2 (A + B - I)$ , where  $I$  is actual investment income net of expenses,  $A$  is the beginning of year asset value, and  $B$  is the end of year asset value.

These rates of return should not be used for measurement of an investment advisor's performance or for comparisons with other systems. The rate of return on member contribution was assumed to be 5.0%.

**Pay Projections.** These assumptions are used to project current pays to those upon which benefits will be based. The assumptions were first used for the December 31, 2002 valuation.

| Annual Rate of Pay Increases for Sample Ages |                 |   |                 |               |   |                 |               |
|--|-----------------|---|-----------------|---------------|---|-----------------|---------------|
| Years of Service                             | Base (Economic) | Merit and Longevity   |                 |               | Total   |                 |               |
|  |                 | General, Library, County Agency, Sheriff's Office, Cent. Dispatch | Road Commission | Mental Health | General, Library, County Agency, Sheriff's Office, Cent. Dispatch | Road Commission | Mental Health |
| 1  | 4.0%            | 3.0%  | 1.0%            | 8.0%          | 7.0%  | 5.0%            | 12.0%         |
| 2  | 4.0             | 3.0   | 1.0             | 5.0           | 7.0   | 5.0             | 9.0           |
| 3  | 4.0             | 3.0   | 1.0             | 5.0           | 7.0   | 5.0             | 9.0           |
| 4  | 4.0             | 3.0   | 1.0             | 5.0           | 7.0   | 5.0             | 9.0           |
| 5  | 4.0             | 3.0   | 1.0             | 1.0           | 7.0   | 5.0             | 5.0           |
| 6  | 4.0             | 3.0   | 1.0             | 1.0           | 7.0   | 5.0             | 5.0           |
| 7  | 4.0             | 3.0   | 1.0             | 1.0           | 7.0   | 5.0             | 5.0           |
| 8  | 4.0             | 3.0   | 1.0             | 1.0           | 7.0   | 5.0             | 5.0           |
| 9+   | 4.0             | 1.0   | 1.0             | 1.0           | 5.0   | 5.0             | 5.0           |

Actual average pay has increased at the following rates.

| Year Ended December 31 |      |      |      |      | 5 Year   |
|------------------------|------|------|------|------|----------|
| 2007                   | 2006 | 2005 | 2004 | 2003 | Average* |
| 5.3%                   | 1.2% | 3.4% | 3.1% | 3.7% | 3.3%     |

\* Compound rate of increase.

*The mortality table (a risk assumption)* used was the 1994 Group Annuity Mortality Table for males and females. The assumptions were first used for the December 31, 2003 valuation.

| Sample<br>Ages | Single Life Retirement Values                  |          |                                   |       |
|----------------|--|----------|-----------------------------------|-------|
|                | Value at Retirement of<br>\$1 Monthly for Life |          | Future Life<br>Expectancy (Years) |       |
|                | Men  | Women    | Men                               | Women |
| 50             | \$147.78                                       | \$154.93 | 30.69                             | 34.89 |
| 55             | 138.58   | 147.42   | 26.15                             | 30.17 |
| 60             | 127.35   | 137.85   | 21.83                             | 25.59 |
| 65             | 114.51   | 126.50   | 17.84                             | 21.28 |
| 70             | 100.68   | 113.58   | 14.29                             | 17.30 |
| 75             | 85.70  | 98.39    | 11.12                             | 13.60 |
| 80             | 70.13  | 81.90    | 8.37                              | 10.31 |

This assumption is used to measure the probabilities of members dying before retirement and the probabilities of each pension payment being made after retirement. For disability retirements the 1994 Group Annuity Mortality Table was used with a 3-year set forward.

The *Rates of Retirement*. (A risk assumption) used to measure the probabilities of an eligible member retiring during the next year were as follows:

| Retirement<br>Ages | Percent of Active Members Retiring within Next Year               |  |                    |        |
|--------------------|---|--|--------------------|--------|
|                    | General County, County Agency<br>Mental Health and County Library | Sheriff's Office &<br>Central Dispatch | Road<br>Commission |        |
|                    |   |  | 55 & 30            | 60 & 8 |
| 50                 |   | 15 %                                   |                    |        |
| 51                 |   | 15                                     |                    |        |
| 52                 |   | 15                                     |                    |        |
| 53                 |   | 20                                     |                    |        |
| 54                 |   | 20                                     |                    |        |
| 55                 | 30 %  | 20                                     | 10 %               |        |
| 56                 | 10  | 20                                     | 10                 |        |
| 57                 | 10  | 10                                     | 20                 |        |
| 58                 | 10  | 5                                      | 20                 |        |
| 59                 | 10  | 5                                      | 20                 |        |
| 60                 | 15  | 5                                      | 20                 | 20 %   |
| 61                 | 15  | 5                                      | 40                 | 10     |
| 62                 | 15  | 5                                      | 40                 | 10     |
| 63                 | 15  | 5                                      | 10                 | 10     |
| 64                 | 5   | 5                                      | 10                 | 10     |
| 65                 | 5   | 100                                    | 100                | 100    |
| 66                 | 5   |  |                    |        |
| 67                 | 5   |  |                    |        |
| 68                 | 5   |  |                    |        |
| 69                 | 5   |  |                    |        |
| 70                 | 100   |  |                    |        |

These rates were first used for the December 31, 2002 valuation for all groups.

*Administrative Expenses.* .50% of payroll.

*Active Member Group Size.* The number of active members was assumed to remain constant. This assumption is unchanged from previous valuations.

**Rates of separation from active membership (a risk assumption)** were as follows:

(Rates do not apply to members eligible for regular retirement and do not include separation on account of death or disability). This assumption measures the probabilities of members remaining in employment. These rates were first used for the December 31, 2002 valuation for all groups.

**Sample Rates of Separation from Active Employment  
Before Retirement, Death or Disability**

| Sample Ages | % of Active Members Separating within Next Year |   |                                     |                 |
|-------------|---|---|-------------------------------------|-----------------|
|             | Years of Service                                | General County, County Agency, Mental Health and County Library | Sheriff's Office & Central Dispatch | Road Commission |
| ALL         | 0   | 15.00%  | 15.00%                              | 10.00%          |
|             | 1   | 13.00   | 9.00                                | 8.00            |
|             | 2   | 12.00   | 7.00                                | 7.00            |
|             | 3   | 8.00  | 7.00                                | 6.00            |
|             | 4   | 8.00  | 7.00                                | 6.00            |
| 25          | 5 & Over  | 9.00  | 3.00                                | 6.00            |
| 30          |   | 9.00  | 3.00                                | 3.00            |
| 35          |   | 8.00  | 2.00                                | 3.00            |
| 40          |   | 6.00  | 2.00                                | 3.00            |
| 45          |   | 4.00  | 1.75                                | 2.00            |
| 50          |   | 4.00  | 1.00                                | 2.00            |
| 55          |   | 1.00  | 0.50                                | 1.00            |
| 60          |   | 1.00  | 0.00                                | 1.00            |

**Rates of Disability.** These rates represent the probabilities of active members becoming disabled.

| Sample Ages | Number of Disabilities Per 100 Eligible Members |       |
|-------------|---|-------|
|             | Men   | Women |
| 20          | 0.08%   | 0.10% |
| 25          | 0.08  | 0.10  |
| 30          | 0.08  | 0.10  |
| 35          | 0.08  | 0.10  |
| 40          | 0.20  | 0.36  |
| 45          | 0.26  | 0.41  |
| 50          | 0.49  | 0.57  |
| 55          | 0.89  | 0.77  |
| 60          | 1.41  | 1.02  |

85% of the disabilities were assumed to be non-duty related. For the Sheriff's Department employees, 50% of the disabilities are assumed to be duty related.

## MISCELLANEOUS AND TECHNICAL ASSUMPTIONS

|                                    |   |
|------------------------------------|---|
| <b>Marriage Assumption:</b>        | 100% of males and 100% of females are assumed to be married for purposes of death-in-service benefits. Male spouses are assumed to be three years older than female spouses.  |
| <b>Pay Increase Timing</b>         | On the valuation date.  |
| <b>Decrement Timing:</b>           | Decrements of all types are assumed to occur mid-year.  |
| <b>Eligibility Testing:</b>        | Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.  |
| <b>Benefit Service:</b>            | Exact fractional service is used to determine the amount of benefit payable.  |
| <b>Decrement Relativity:</b>       | Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.   |
| <b>Decrement Operation:</b>        | Disability and death-in-service decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during retirement eligibility.  |
| <b>Normal Form of Benefit:</b>     | The assumed normal form of benefit is straight life form.   |
| <b>Loads:</b>                      | None.   |
| <b>Incidence of Contributions:</b> | Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits. |

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## **SECTION E**

### **FINANCIAL DISCLOSURE IN CONFORMANCE WITH STATEMENT NO. 25 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD**

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**This information is presented in draft form for review by the System's auditor. Please let us know if there are any items that the auditor changes so that we may maintain consistency with the System's financial statements.**

# Monroe County Employees Retirement System

## Schedule of Funding Progress

| Actuarial<br>Valuation<br>Date | Actuarial<br>Value of<br>Assets<br>(a) | Actuarial<br>Accrued<br>Liability (AAL)<br>Entry Age<br>(b) | Unfunded<br>AAL (UAAL)<br>(b-a) | Funded<br>Ratio<br>(a/b) | Covered<br>Payroll<br>(c) | UAAL as a<br>Percentage<br>of Covered<br>Payroll<br>(b-a)/c |
|--------------------------------|--|---|---------------------------------|--------------------------|---------------------------|---|
| 12/31/98*                      | \$117,699,465                          | \$ 91,136,434   | \$ (26,563,031)                 | 129.1                    | \$29,309,641              | (90.6) %  |
| 12/31/99*                      | 132,836,927                            | 97,650,685  | (35,186,242)                    | 136.0                    | 31,064,894                | (113.3)   |
| 12/31/00*                      | 143,765,352                            | 105,824,598   | (37,940,754)                    | 135.9                    | 32,749,688                | (115.9)   |
| 12/31/01*                      | 150,304,504                            | 116,359,159   | (33,945,345)                    | 129.2                    | 35,250,392                | (96.3)  |
| 12/31/02*#                     | 148,404,995                            | 125,652,447   | (22,752,548)                    | 118.1                    | 35,895,185                | (63.4)  |
| 12/31/03#                      | 162,683,115                            | 139,141,015   | (23,542,100)                    | 116.9                    | 37,862,618                | (62.2)  |
| 12/31/04*                      | 162,725,639                            | 150,510,011   | (12,215,628)                    | 108.1                    | 38,712,508                | (31.6)  |
| 12/31/05                       | 163,151,579                            | 163,641,875   | 490,296                         | 99.7                     | 41,047,874                | 1.2   |
| 12/31/06                       | 169,283,765                            | 174,001,978   | 4,718,213                       | 97.3                     | 41,821,305                | 11.3  |
| 12/31/07*                      | 181,320,182                            | 186,841,313   | 5,521,131                       | 97.0                     | 43,152,156                | 12.8  |

\* *Plan amended.*

# *Assumptions revised.*

Notes: Values take account of all System benefits except retiree health benefits. 13<sup>th</sup> checks to retirees that were paid from System assets before the valuation date and as scheduled to be paid during 2008 are reflected in the valuation. No additional 13<sup>th</sup> checks have been considered.

Actuarial Cost Method

Individual Entry Age Normal Cost

Asset Valuation

Market value with 5-year smoothing

Amortization Method

Level percent of payroll

Equivalent single amortization period

Library 6.7 years

Mental Health 9.1 years

All Others 20 years

Principal actuarial assumptions (last revised for the 12/31/02 valuation):

- Net Investment Return\*

7.0%

- Projected Salary Increases\*

5.0% to 12.0%

- Cost-of-Living Adjustments

4.5%, certain Road Commission members only.

\* *Includes pay inflation at 4.0%.*



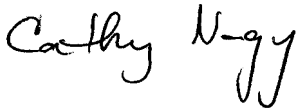
June 16, 2008

Monroe County Retirement Board of Trustees  
125 East Second Street  
Monroe, Michigan 48161

Attn: Ms. Debra Elmore:

Please find enclosed 15 copies of the Fortieth Annual Actuarial Valuation report as of December 31, 2007 for the Monroe County Employees Retirement System.

Sincerely,



Cathy Nagy

CN:mrh  
Enclosures

cc: Nancy Colpaert, Director (3 copies)  
Monroe County Library System  
Ms. Debbie Turner, Human Resources Director (5 copies)  
Monroe County Road Commission  
Ms. Jane Terwilliger, Director (3 copies)  
Monroe Community Mental Health Authority