

**MONROE COUNTY EMPLOYEES RETIREMENT SYSTEM**  
**BASIC RETIREMENT BENEFITS**  
ACTUARIAL VALUATION REPORT  
DECEMBER 31, 2010

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August 15, 2011

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

**Re: Monroe County Employees Retirement System Actuarial Valuation as of December 31, 2010**

Dear Board Members:

The results of the December 31, 2010 Annual Actuarial Valuation of the Monroe County Employees Retirement System are presented in this report.

This report was prepared at the request of the Board and is intended for use by the Retirement System and those designated or approved by the Board. This report may be provided to parties other than the System only in its entirety and only with the permission of the Board.

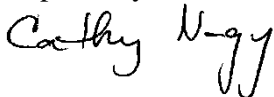
The purpose of the valuation is to measure the System's funding progress, to determine the employer contribution rate for the fiscal year ending December 31, 2012, and to determine the actuarial information for Governmental Accounting Standards Board (GASB) Statement No. 25.

The actuaries submitting this statement 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.

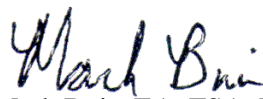
Please see the following page for additional disclosures required by the Actuarial Standards of Practice.

To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the Monroe County Employees Retirement System as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Respectfully submitted,



Cathy Nagy, FSA, EA, MAAA



Mark Buis, EA, FSA, MAAA

CN:mrb

## **DISCLOSURES REQUIRED BY ACTUARIAL STANDARDS OF PRACTICE**

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuary's assignment, the actuary did not perform an analysis of the potential range of such future measurements.

This report should not be relied on for any purpose other than the purpose described in the primary communication. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

The signing actuaries are independent of the plan sponsor.

The valuation was based upon information furnished by the County, concerning Retirement System benefits, financial transactions, plan provisions and active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. We are not responsible for the accuracy or completeness of the information provided by the County.

The developed findings included in this report consider data or other information through December 31, 2010.

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## **SECTION A**

### **EXECUTIVE SUMMARY**

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## 1. Required Employer Contributions - Fiscal Year Beginning January 1, 2012

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

Division	Computed Employer Contribution Rates	
	% of Payroll	\$ Based on 12/31/10 Payroll
General County	22.23 %	\$3,095,420
County Agency	32.33	405,952
Sheriff's Office	24.11	2,171,615
County Library	11.23	574,497
Road Commission	18.35	849,507
Mental Health	10.42	697,120
Central Dispatch	20.48	190,539

For detail please see page B-2.

**Please note that these costs include the 13<sup>th</sup> checks for the year 2011.**

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 12/31/09	Actual 12/31/10
General County	17.29 %	22.23 %
County Agency	17.39	32.33
Sheriff's Office	20.50	24.11
County Library	10.76	11.23
Road Commission	17.21	18.35
Mental Health	8.67	10.42
Central Dispatch	19.09	20.48

### 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.

There were no changes in actuarial assumptions or methods since the last actuarial valuation.

An Early Retirement Incentive Program was offered to the General, County Agency, Sheriff and Central Dispatch Employees during 2010. Certain active members retired as a result of the program. The impact of the Early Retirement Incentive Program is reflected in the liabilities and contribution rates.

In addition, certain union groups and the General non-union group adopted a 1.5% multiplier and 3% member contribution rate for new hires. The effective date of this change is January 1, 2011. The impact of this benefit change will be reflected in the annual actuarial valuation as new members are hired into these groups.

The rate changes are also due to plan experience during the year as discussed below.

### 4. 2010 Plan Experience

Plan experience during the year was unfavorable for most groups with an overall experience gain/(loss) of (\$17,443,868). The gain/loss development is shown on page B-7 separately for each division.

All groups experienced unfavorable investment experience. Investment experience on the smoothed market basis was 4.71% compared to the 7% return assumed in the valuation.

Investment Gain/(Loss)	\$ (4,264,038)
Non-Investment Gain/(Loss)*	<u>(13,179,830)</u>
Gain/(Loss) from all causes	\$(17,443,868)

\* Reflects the impact of the Early Retirement Incentive Program.

### 5. 2010 Funding Position

This year the actuarial value of assets represents 83% of accrued liabilities; last year the ratio was 89%. The System's funding level remains healthy despite the unfavorable experience.

As of December 31, 2010 valuation assets exceed the market value of assets by \$16,156,756. This is the amount of past asset losses not yet realized in the valuation. It will be fully recognized over the next six years putting upward pressure on the contribution rates. On a market value basis, the funding position of the plan is 76%.

## **6. Retiree Reserve Balance**

For all divisions, the 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**

In the short-term, employer contributions are expected to increase as the unfavorable investment returns are working through the asset smoothing. If the markets do not fully rebound, employer contributions will continue to rise.



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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, 2012 are presented on pages B-2 and B-3.

**Contributions to Provide Benefits  
December 31, 2010 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	11.09 %	9.52 %	13.82 %	9.40 %	11.35 %	10.85 %	13.68 %
Disability	0.74	0.97	0.87	0.44	1.08	0.58	0.86
Death in service	0.40	0.41	0.36	0.25	0.28	0.35	0.38
Administrative expenses	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Totals	<u>12.88</u>	<u>11.55</u>	<u>15.70</u>	<u>10.74</u>	<u>13.36</u>	<u>12.43</u>	<u>15.57</u>
Member contributions: Total*	0.00	0.00	0.17	0.00	3.10	0.00	1.52
Future refunds	0.00	0.00	0.01	0.00	0.37	0.00	0.10
Available for pensions	<u>0.00</u>	<u>0.00</u>	<u>0.16</u>	<u>0.00</u>	<u>2.73</u>	<u>0.00</u>	<u>1.42</u>
Employer normal cost	12.88	11.55	15.54	10.74	10.63	12.43	14.15
Amortization of UAL	<u>9.35</u>	<u>20.78</u>	<u>8.57</u>	<u>0.49</u>	<u>7.72</u>	<u>(2.01)</u>	<u>6.33</u>
Computed Employer Rate	<u><u>22.23</u></u>	<u><u>32.33</u></u>	<u><u>24.11</u></u>	<u><u>11.23</u></u>	<u><u>18.35</u></u>	<u><u>10.42</u></u>	<u><u>20.48</u></u>

\* Weighted average of different rates.

Effective for the 12/31/2008 valuation, the unfunded liability for the Mental Health division is amortized over an open 10 year period, as this group is over 100% funded on a funding valuation basis. Unfunded liabilities for all other divisions are amortized over an open 20 year period, per the 6/26/2006 Board Meeting. Should the Mental Health division fall below 100% funding, unfunded liabilities will be amortized over an open 20 year period.

*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 County	County Agency	Sheriff's Office	County Library	Road Comm.	Mental Health	Central Dispatch
A. Accrued Liability							
1. For retirees and beneficiaries							
a. Monthly Pension	\$ 60,426,513	\$ 8,103,524	\$ 32,685,535	\$ 4,094,723	\$ 15,260,735	\$ 8,757,871	\$ 1,987,693
b. 2010 13 <sup>th</sup> Check Payments	60,380	7,393	30,303	25,200	62,800	0	1,824
2. For vested terminated members	4,656,626	0	611,308	421,968	346,847	3,560,503	0
3. For present active members							
a. Value of expected future benefit payments	46,023,659	3,931,480	37,489,847	14,342,540	17,076,336	16,531,934	3,427,953
b. Value of future normal costs	14,260,497	1,300,409	14,648,128	4,197,290	5,267,158	6,883,858	1,687,244
c. Active member liability: (a) - (b)	31,763,162	2,631,071	22,841,719	10,145,250	11,809,178	9,648,076	1,740,709
4. Total	96,906,681	10,741,988	56,168,865	14,687,141	27,479,560	21,966,450	3,730,226
B. Valuation Assets	78,180,952	6,988,424	45,067,407	14,329,128	22,340,076	23,070,053	2,883,346
C. Unfunded Accrued Liability: (A.4) - (B)	18,725,729	3,753,564	11,101,458	358,013	5,139,484	(1,103,603)	846,880
D. Funded percentage: (B)/(A.4)	80.7%	65.1%	80.2%	97.6%	81.3%	105.0%	77.3%

## 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	\$60,426,513	\$42,694,298	\$ 17,732,215
County Agency	8,103,524	3,655,364	4,448,160
Sheriff's Office	32,685,535	24,524,522	8,161,013
County Library	4,094,723	4,045,697	49,026
Road Commission	15,260,735	14,065,207	1,195,528
Mental Health	8,757,871	8,249,636	508,235
Central Dispatch	1,987,693	1,549,703	437,990

Amounts should be transferred from the employer reserves to the retiree reserves to cover the unfunded amount for each division.

**Comment B:** Overall experience during 2010 was unfavorable. 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 \$187,900 in liabilities for estimated special payments.

As payments of these amounts during 2011 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.

**Development of Experience Gain/(Loss)  
Year Ended December 31, 2010**

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 2010						
	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch
(1) UAAL* at start of year	\$10,041,239	\$1,656,611	\$ 7,523,263	\$100,706	\$4,738,339	\$(2,172,440)	\$ 666,501
(2) Normal cost	1,667,183	128,978	1,318,256	502,303	583,392	775,040	136,596
(3) Actual contributions	2,975,982	390,206	2,435,603	355,740	880,993	461,557	274,877
(4) Interest accrual	657,602	106,924	487,968	12,120	321,387	(141,224)	41,871
(5) Expected UAAL before changes: (1) + (2) - (3) + (4)	9,390,042	1,502,307	6,893,884	259,389	4,762,125	(2,000,181)	570,091
(6) Change from benefit changes	0	0	0	0	0	0	0
(7) Change from revised assumptions	0	0	0	0	0	0	0
(8) Change from revised asset method	0	0	0	0	0	0	0
(9) Expected UAAL after changes: (5)+(6)+(7)-(8)	9,390,042	1,502,307	6,893,884	259,389	4,762,125	(2,000,181)	570,091
(10) Actual UAAL at end of year	18,725,729	3,753,564	11,101,458	358,013	5,139,484	(1,103,603)	846,880
(11) Gain/(loss): (9) - (10)	(9,335,687)	(2,251,257)	(4,207,574)	(98,624)	(377,359)	(896,578)	(276,789)
(12) Gain/(loss) as percent of actuarial accrued liability at start of year	(10.75)%	(25.86)%	(8.21)%	(0.71)%	(1.40)%	(4.44)%	(8.03)%

\* *Unfunded actuarial accrued liability*



**Development of Valuation Investment Gain/(Loss)**  
**Year Ended December 31, 2010**  
**(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 2010 Valuation Investment Income	\$ 8,785,812
(2) Average Valuation Assets	186,426,426
(3) Expected Investment Income: (.07) x (2)	13,049,850
(4) Effect of Revised Asset Method	0
(5) Gain (loss): (1) - (3) - (4)	(4,264,038)
(6) 2010 Rate of Return on Valuation Assets	4.71%

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) will only be fully covered if the plans liabilities are at least 100% funded.

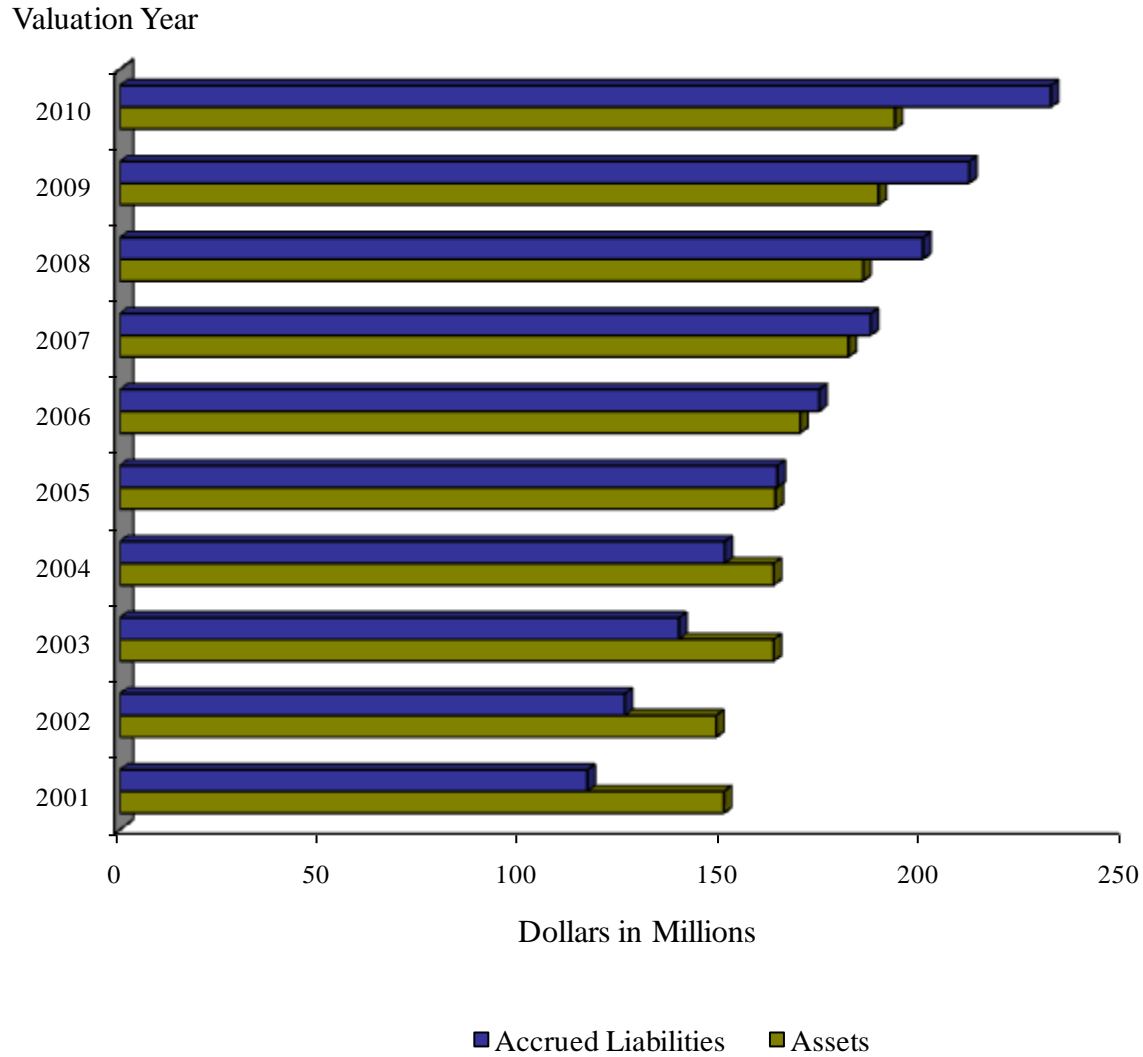
## Liabilities, Assets and Funded Percents

Valuation Date	Dollar Amounts in Thousands				Percent Covered			
	Item (1)	Item (2)	Item (3)	Total	Assets	Items (1)+(2)	Item (3)	Total
12-31-96 *	\$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	135.9
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
12-31-08 *#	82,998	9,360	107,503	199,861	184,968	100.0	86.1	92.5
12-31-09	98,784	9,126	103,423	211,333	188,779	100.0	78.2	89.3
12-31-10	131,317	9,597	90,767	231,681	192,859	100.0	57.2	83.2

\* Retirement System amended.

# Actuarial assumptions and methods were revised.

## Assets & Accrued Liabilities



2000 assets equaled 129% of accrued liabilities.  
 2010 assets equaled 83% of accrued liabilities.

## Computed Employer Contributions Comparative Schedule

Valuation Date December 31	Active Members	Valuation Payroll	Employer Contributions As Payroll Percents						
			General	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch
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
2008 #*	955	43,961,798	14.92	17.63	19.43	9.60	17.17	7.12	19.45
2009	912	42,893,801	17.29	17.39	20.50	10.76	17.21	8.67	19.09
2010	818	38,418,135	22.23	32.33	24.11	11.23	18.35	10.42	20.48

# Retirement System amended.

\* Revised actuarial assumptions or method.

+ Prior to 1997 the Dispatcher's group was included with the Sheriff's group.

\$ Prior to 2001 the County Agency 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, 2010)**

<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 (2.75% for Sheriff Command Officers).  Highest 3 consecutive years out of last 10 for all groups.  Maximum Benefit: 75% of final average earnings.
Certain union groups and the General non-union group adopted a 1.5% multiplier and 3% member contribution rate for members hired on or after 1/1/11.	
<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, 2010)**

<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:	3.00% of the first \$7,800 and 5.00% of excess.
Road Commission:	3.10%.
Sheriff Command Officers:	1.53%.
General County:	None.
All Others:	None.
Certain union groups and the non-union General Group adopted a 3% member contribution for members hired after 1/1/2011.	



## Retiree and Beneficiary Comparative Schedule

Valuation Date December 31	Added#@		Removed		End of Year		% Incr. in Annual Pensions	Ratio of Number Active Members to Number Retired	Annual Pensions as a % of Active Payroll
	No.	Annual Pensions	No.	Annual Pensions	No.	Annual Pensions			
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
2008	20	390,306	12	122,465	505	7,919,615	3.5	2	18.0
2009	76	1,691,456	25	289,107	556	9,321,964	17.7	2	21.7
2010	106	2,903,205	17	150,288	645	12,074,881	29.5	1	31.4

# 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, 2010**  
**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 35					1	\$ 7,196	1	\$ 7,196
35-39								
40-44								
45-49	5	\$ 152,660	2	\$ 10,133			7	162,793
50-54	28	813,884	3	38,441			31	852,325
55-59	40	1,036,842	3	48,356	1	23,058	44	1,108,256
60-64	66	1,313,280	8	89,607			74	1,402,887
65-69	49	839,571	2	18,871	1	9,012	52	867,454
70-74	41	498,987	2	11,527	1	13,812	44	524,326
75-79	21	292,018	1	2,779			22	294,797
80-84	20	234,028	1	7,232			21	241,260
85-89	17	126,386					17	126,386
90+	9	74,063					9	74,063
<b>Total</b>	<b>296</b>	<b>\$ 5,381,719</b>	<b>22</b>	<b>\$ 226,946</b>	<b>4</b>	<b>\$ 53,078</b>	<b>322</b>	<b>\$ 5,661,743</b>

Average Age at Retirement: 59.6 years.

Average Age Now: 67.2 years.

**Retirees and Beneficiaries December 31, 2010**  
**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 35								
35-39								
40-44								
45-49	3	\$ 106,553	1	\$ 24,158			4	\$ 130,711
50-54	5	188,630					5	188,630
55-59	1	30,816					1	30,816
60-64	7	213,277			1	\$ 12,454	8	225,731
65-69	1	24,742					1	24,742
70-74	3	42,656					3	42,656
75-79	3	26,519					3	26,519
80-84					1	5,337	1	5,337
85-89	3	18,134					3	18,134
90+								
<b>Total</b>	<b>26</b>	<b>\$ 651,327</b>	<b>1</b>	<b>\$ 24,158</b>	<b>2</b>	<b>\$ 17,791</b>	<b>29</b>	<b>\$ 693,276</b>

Average Age at Retirement: 56.4 years.

Average Age Now: 64.3 years.

**Retirees and Beneficiaries December 31, 2010**  
**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 35								
35-39								
40-44			1	\$ 13,230			1	\$ 13,230
45-49	1	\$ 48,100	3	74,429			4	122,529
50-54	12	552,114	4	50,712			16	602,826
55-59	25	879,279	3	59,809	1	\$ 15,035	29	954,123
60-64	20	544,112	3	26,652	1	11,126	24	581,890
65-69	9	173,477	2	9,904			11	183,381
70-74	10	196,079	3	26,428			13	222,507
75-79	6	96,909					6	96,909
80-84	5	42,202					5	42,202
85-89					1	21,815	1	21,815
90+								
<b>Total</b>	<b>88</b>	<b>\$ 2,532,272</b>	<b>19</b>	<b>\$ 261,164</b>	<b>3</b>	<b>\$ 47,976</b>	<b>110</b>	<b>\$ 2,841,412</b>

Average Age at Retirement: 53.6 years.

Average Age Now: 62.9 years.

**Retirees and Beneficiaries December 31, 2010**  
**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 35								
35-39								
40-44								
45-49								
50-54								
55-59								
60-64	7	\$ 128,090					7	\$ 128,090
65-69	8	97,417					8	97,417
70-74	7	82,893					7	82,893
75-79	6	83,812					6	83,812
80-84	3	44,116					3	44,116
85-89	3	6,086					3	6,086
90+	1	4,799					1	4,799
<b>Total</b>	<b>35</b>	<b>\$ 447,213</b>					<b>35</b>	<b>\$ 447,213</b>

Average Age at Retirement: 60.6 years.

Average Age Now: 72.7 years.

**Retirees and Beneficiaries December 31, 2010**  
**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 35								
35-39								
40-44								
45-49								
50-54	1	\$ 28,831					1	\$ 28,831
55-59	9	214,153	2	\$ 22,201			11	236,354
60-64	9	209,178	3	44,445			12	253,623
65-69	18	320,959					18	320,959
70-74	9	223,764	1	6,673			10	230,437
75-79	11	169,238			2	\$ 20,240	13	189,478
80-84	13	152,613					13	152,613
85-89	2	19,178					2	19,178
90+								
<b>Total</b>	<b>72</b>	<b>\$ 1,337,914</b>	<b>6</b>	<b>\$ 73,319</b>	<b>2</b>	<b>\$ 20,240</b>	<b>80</b>	<b>\$ 1,431,473</b>

Average Age at Retirement: 57.8 years.

Average Age Now: 70.2 years.

**Retirees and Beneficiaries December 31, 2010**  
**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 35								
35-39								
40-44								
45-49								
50-54	2	\$ 17,603					2	\$ 17,603
55-59	10	146,475			2	\$ 35,849	12	182,324
60-64	20	295,517					20	295,517
65-69	15	193,384					15	193,384
70-74	5	86,694					5	86,694
75-79	4	39,768					4	39,768
80-84	1	9,593					1	9,593
85-89								
90+	1	3,889					1	3,889
<b>Total</b>	<b>58</b>	<b>\$ 792,923</b>			<b>2</b>	<b>\$ 35,849</b>	<b>60</b>	<b>\$ 828,772</b>

Average Age at Retirement: 59.7 years.

Average Age Now: 64.9 years.

**Retirees and Beneficiaries December 31, 2010**  
**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 35								
35-39								
40-44								
45-49			1	\$ 16,739			1	\$ 16,739
50-54	1	\$ 41,491					1	41,491
55-59	1	24,875	1	12,726			2	37,601
60-64	1	24,828	1	14,786			2	39,614
65-69	2	23,120					2	23,120
70-74	1	12,427					1	12,427
75-79								
80-84								
85-89								
90+								
<b>Total</b>	<b>6</b>	<b>\$ 126,741</b>	<b>3</b>	<b>\$ 44,251</b>			<b>9</b>	<b>\$ 170,992</b>

Average Age at Retirement: 55.3 years.

Average Age Now: 60.3 years.



**Inactive Vested Members December 31, 2010**  
**Tabulated by Attained Age**

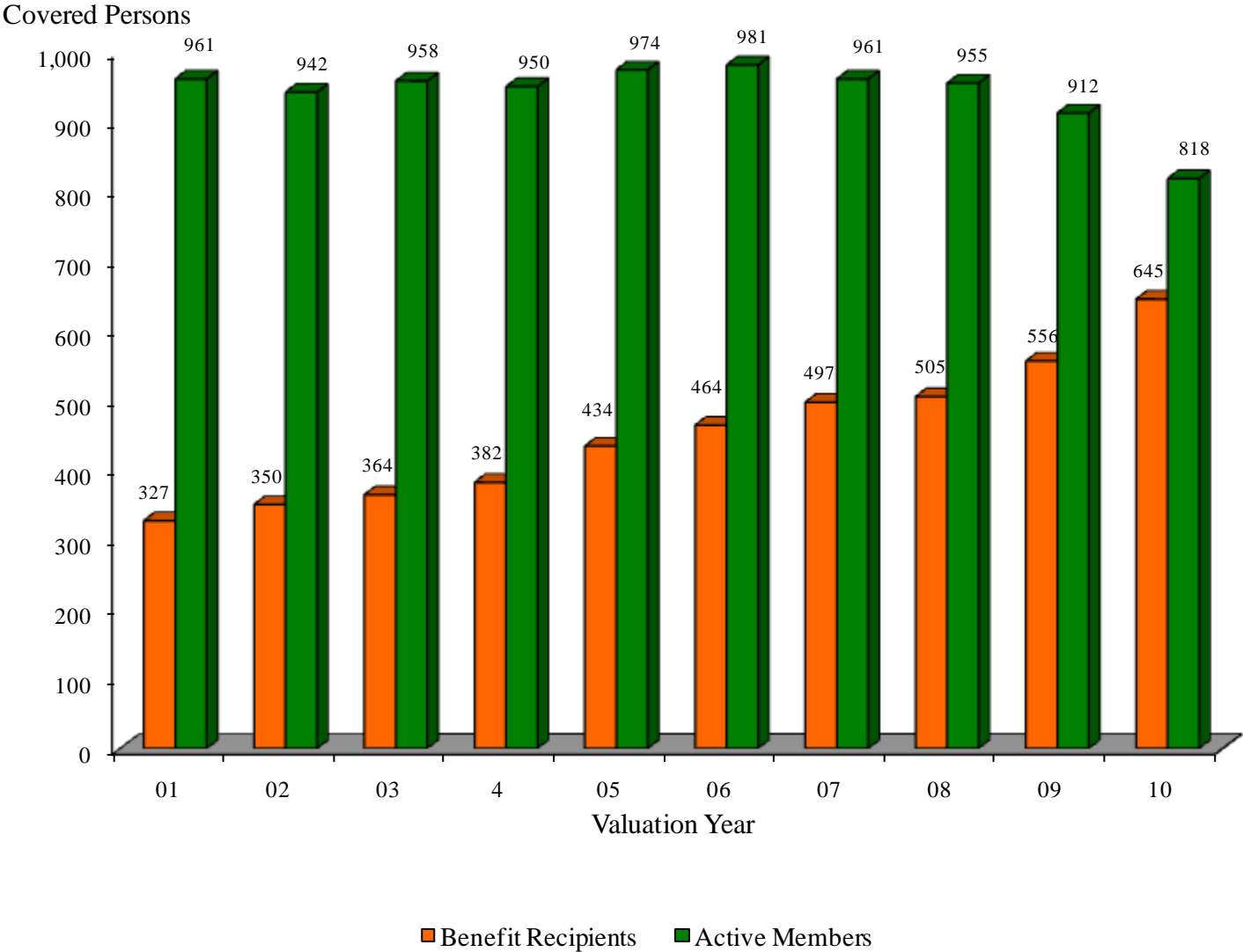
Attained Age	Age & Service	
	No.	Annual Benefits
27	1	\$ 9,317
33	1	13,893
34	1	10,535
36	2	15,841
37	3	26,345
38	1	7,071
39	3	26,155
40	2	26,461
41	1	6,088
42	5	44,402
43	4	30,367
44	5	40,455
45	7	43,873
46	7	83,600
47	6	78,706
48	8	61,695
49	8	79,459
50	5	70,660
51	4	39,166
52	6	73,350
53	3	28,604
54	9	127,591
55	6	81,315
56	11	140,537
57	6	70,394
58	7	60,041
59	14	134,916
60	2	22,924

<b>Total</b>	<b>138</b>	<b>\$1,453,761</b>
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Average Age at Termination: 40.8 years.

Average Age Now: 50.5 years.

# Active Members & Benefit Recipients



## Active Members December 31, 2010

Division	Total	
	No.	Annual Pays
General County	297	\$12,873,997
County Agency	25	1,160,921
Sheriff's Office	141	8,327,582
County Library	123	4,729,782
Road Commission	85	4,280,204
Mental Health	129	6,185,473
Central Dispatchers	18	860,176
<b>Total</b>	<b>818</b>	<b>\$38,418,135</b>

## Comparative Schedule

Valuation Date December 31	Active Members	Valuation Payroll	Average			% Increase
			Age	Service	Pay	
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	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
2008	955	43,961,798	45.1	11.4	46,033	2.5
2009	912	42,893,801	44.9	11.2	47,033	2.2
2010	818	38,418,135	44.5	11.0	46,966	(0.1)

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, 2010  
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	\$ 173,144
25-29	12	4						16	483,753
30-34	14	11	9	1				35	1,404,498
35-39	14	9	6	3				32	1,292,862
40-44	3	3	6	14	3	1		30	1,462,215
45-49	12	11	16	8	11	2		60	2,473,559
50-54	9	7	15	7	3	7	3	51	2,290,965
55-59	7	8	9	5	4	2	1	36	1,674,622
60	3	4	1	2		1	2	13	609,311
61			1		1	1	1	4	238,606
62		3					1	4	228,552
63	1	2					1	4	178,584
64									
65					1			1	95,994
66		1						1	94,001
67									
68							1	1	106,165
69						1		1	52,313
70 & Up		1						1	14,853
<b>Totals</b>	<b>82</b>	<b>64</b>	<b>63</b>	<b>40</b>	<b>23</b>	<b>15</b>	<b>10</b>	<b>297</b>	<b>\$12,873,997</b>

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

Age: 45.6 years.

Service: 11.3 years.

Annual Pay: \$43,347.

**Active County Agency Members December 31, 2010  
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	\$ 79,069
25-29	1	1						2	91,783
30-34	1	2						3	147,772
35-39	1	1	1					3	143,562
40-44									
45-49	2		1	2	3			8	386,148
50-54		1	1	2	1	1		6	266,519
55-59									
60				1				1	46,068
<b>Totals</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>1</b>		<b>25</b>	<b>\$1,160,921</b>

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

Age: 42.1 years.  
Service: 11.8 years.  
Annual Pay: \$46,437.

**Active Sheriff's Office Members December 31, 2010  
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	\$ 36,523
25-29	2	5						7	389,985
30-34	4	15	6					25	1,374,319
35-39	4	8	21	4				37	2,223,329
40-44	2	6	10	8	5			31	1,853,769
45-49	1	2	5	3	7	4		22	1,374,889
50-54			4	4	2	1		11	688,709
55-59			3	1				4	220,378
61						1		1	67,973
62	1							1	35,411
64			1					1	62,297
<b>Totals</b>	<b>15</b>	<b>36</b>	<b>50</b>	<b>20</b>	<b>14</b>	<b>6</b>		<b>141</b>	<b>\$8,327,582</b>

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

Age: 40.4 years.

Service: 12.1 years.

Annual Pay: \$59,061.

**Active County Library Members December 31, 2010  
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	6							6	\$ 177,780
25-29	10	2						12	408,247
30-34	1	3						4	167,234
35-39	5	2						7	243,590
40-44	8	3	2	2				15	573,483
45-49	10	2		1	1	2		16	583,493
50-54	10	8	2	1	1	2	2	26	998,262
55-59	5	2	2		3	3	3	18	742,921
60				1			1	2	161,849
61	2	1	1	1			1	6	252,157
62	2				1			3	118,546
63						1		1	44,093
64	1	1						2	63,634
65	1						1	2	68,745
67	1						1	2	93,048
70 & Up	1							1	32,700
<b>Totals</b>	<b>63</b>	<b>24</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>8</b>	<b>9</b>	<b>123</b>	<b>\$4,729,782</b>

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

Age: 47.4 years.

Service: 9.5 years.

Annual Pay: \$38,454.

**Active Road Commission Members December 31, 2010**  
**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						1	\$ 47,438
30-34		3	1					4	175,339
35-39		5	6	3				14	720,054
40-44	1	3	2	7	3			16	783,668
45-49	1	5	7	4	5	2		24	1,218,232
50-54		6	3	3	2	2		16	821,982
55-59		3		1	1			5	247,983
60				2		1		3	143,824
63		1						1	75,414
64					1			1	46,270
<b>Totals</b>	<b>2</b>	<b>27</b>	<b>19</b>	<b>20</b>	<b>12</b>	<b>5</b>		<b>85</b>	<b>\$4,280,204</b>

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

Age: 46.0 years.

Service: 13.8 years.

Annual Pay: \$50,355.



**Active Mental Health Members December 31, 2010  
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	\$ 16,327
25-29	12	1						13	505,561
30-34	5	8	2					15	651,370
35-39	5	6	5					16	646,230
40-44	8	6	4	5	2			25	1,242,448
45-49	4	1	3	4	6			18	811,654
50-54	6	4	2	1	4			17	828,918
55-59	4	4	3		2			13	809,069
60		1	1					2	82,819
61			1					1	30,544
62	2							2	146,712
63			1					1	46,761
64		2						2	214,053
66	1		1					2	100,747
67		1						1	52,260
<b>Totals</b>	<b>48</b>	<b>34</b>	<b>23</b>	<b>10</b>	<b>14</b>			<b>129</b>	<b>\$6,185,473</b>

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

Age: 44.0 years.  
 Service: 8.6 years.  
 Annual Pay: \$47,949.

**Active Central Dispatch Members December 31, 2010  
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	\$ 82,445
25-29									
30-34	3	2						5	204,906
35-39	1	1	2					4	197,876
40-44		2	1	1				4	204,654
45-49									
50-54			1	1				2	104,743
55-59					1			1	65,552
<b>Totals</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>1</b>			<b>18</b>	<b>\$860,176</b>

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

Age: 37.5 years.

Service: 8.8 years.

Annual Pay: \$47,788.

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

## Market Value

### Revenues and Expenditures

#### REVENUES:

a. Member contributions	\$ 1,836,533
b. Employer contributions	5,938,425
c. Interest and Dividends	5,500,818
d. Realized and unrealized gain (loss)	<u>11,584,757</u>
e. Total revenues	24,860,533

#### EXPENDITURES:

a. Refunds of member contributions	1,477,250
b. Retirement benefits paid	10,717,540
c. Administrative expense	285,872
d. Investment expense	<u>1,323,486</u>
e. Total expenditures	<u>13,804,148</u>

#### RESERVE INCREASE:

Total revenues minus total expenditures	<u><u>\$ 11,056,385</u></u>
---	-----------------------------

### Market Value Assets

Cash and cash equivalents*	\$ (344,332)
Other short-term investments	11,997,287
Bonds - U.S. Guaranteed	21,871,390
- Other	59,420,378
Stocks	81,770,105
Real Estate	<u>1,987,802</u>
Total Assets	<u><u>\$176,702,630</u></u>

\* Net of payables, if any.

## Development of Pension Valuation Assets

Valuation Date December 31:	2006	2007	2008	2009	2010
1. Beginning of Year Assets					
a) Market Value	\$163,292,118	\$177,532,251	\$187,790,674	\$148,763,118	\$165,646,245
b) Valuation Assets	163,151,579	169,283,765	181,320,182	184,967,843	188,779,278
2. End of Year Market Value Assets	177,532,251	187,790,674	148,763,118	165,646,245	176,702,630
3. Net Additions to Market Value					
a) Net Contributions	3,529,751	5,269,167	5,609,406	5,743,482	7,774,958
b) Net Investment Income = (3d) - (3a) - (3c)	18,315,996	13,707,764	(35,945,076)	21,216,280	15,762,089
c) Benefit Payments, Refunds, and Admin Expenses	(7,605,614)	(8,718,508)	(8,691,886)	(10,076,635)	(12,480,662)
d) Total Additions to Market Value = (2) - (1a)	14,240,133	10,258,423	(39,027,556)	16,883,127	11,056,385
4. Average Valuation Assets = (1b) + .5 x [(3a) + (3c)]	161,113,648	167,559,095	179,778,942	182,801,267	186,426,426
5. Expected Income at Valuation Rate = 7% x (4)	11,277,955	11,729,137	12,584,526	12,796,089	13,049,850
6. Gain (Loss) = (3b) - (5)	7,038,041	1,978,627	(48,529,602)	8,420,191	2,712,239
7. Phased-In Recognition of Investment Return					
a) Current Year: 1/7 x (6) [20% prior to 2008]	1,407,608	395,725	(6,932,800)	1,202,884	387,463
b) First Prior Year	278,149	1,407,608	1,078,415	(6,932,800)	1,202,884
c) Second Prior Year	108,470	278,149	0	1,078,415	(6,932,800)
d) Third Prior Year	1,566,667	108,470	0	0	1,078,415
e) Fourth Prior Year	(4,430,800)	1,566,669	0	0	0
f) Fifth Prior Year		0	0	0	0
g) Sixth Prior Year		0	0	0	0
h) Total Recognized Investment Gain	(1,069,906)	3,756,621	(5,854,385)	(4,651,501)	(4,264,038)
8. Change in Valuation Assets (3a) + (3c) + (5) + (7h)	6,132,186	12,036,417	3,647,661	3,811,435	4,080,108
9. Preliminary Valuation Assets = (1b) + (8)	169,283,765	181,320,182	184,967,843	188,779,278	192,859,386
10. Corridor					
a) Lower Limit: 74% x (2) [80% prior to 2008]	142,025,801	150,232,539	104,134,183	119,265,296	130,759,946
b) Upper Limit: 126% x (2) [120% prior to 2008]	213,038,701	225,348,809	193,392,053	212,027,194	222,645,314
c) Adjustment to (9) to fit Limits	0	0	0	0	0
11. End of Year Assets					
a) Market Value = (2)	177,532,251	187,790,674	148,763,118	165,646,245	176,702,630
b) Valuation Assets = (9) + (10c)	169,283,765	181,320,182	184,967,843	188,779,278	192,859,386
c) Difference Between Market & Valuation Assets	8,248,486	6,470,492	(36,204,725)	(23,133,033)	(16,156,756)
d) Investment Return = (5) + (7h) + (10c)	10,208,049	15,485,758	6,730,141	8,144,588	8,785,812
12. Recognized Rate of Return = (11d) / (4)	6.34%	9.24%	3.74%	4.46%	4.71%
11. Market Rate of Return = 2 x (3b) / [(1a) + (2) - (3b)]	11.36%	7.80%	(19.30%)	14.47%	9.65%

## Allocation of Pension Valuation Assets December 31, 2010 Valuation

	Allocation of Retirement Systems Assets for 2010						
	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch
(1) Valuation assets at start of year	\$76,820,788	\$7,047,695	\$43,712,504	\$13,812,739	\$22,220,475	\$22,386,700	\$2,778,377
(2) Employee contributions	947,294	142,302	512,606	0	143,476	0	90,855
(3) Employer contributions	2,028,688	247,904	1,922,997	355,740	737,517	461,557	184,022
(4) Benefits paid	4,823,803	537,194	2,453,388	466,296	1,457,519	790,776	188,564
(5) Refund of contributions	244,023	224,740	604,945	0	296,065	0	107,477
(6) Administrative expense Allocated on BOY asset value	116,331	10,672	66,195	20,917	33,649	33,901	4,207
(7) Average valuation assets [(1) + 0.5*(2) + (3) - (4) - (5) - (6)]	75,716,699	6,856,495	43,368,042	13,747,003	21,767,355	22,205,140	2,765,692
(8) Investment income Allocated on average valuation assets	3,568,339	323,129	2,043,828	647,862	1,025,841	1,046,473	130,340
(9) Transfer In	0	0	0	0	0	0	0
Transfer Out	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net Transfer of Assets	0	0	0	0	0	0	0
(10) Valuation assets at end of year [(1) + (2) + (3) - (4) - (5) - (6) + (8) + (9)]	78,180,952	6,988,424	45,067,407	14,329,128	22,340,076	23,070,053	2,883,346
(11) Total revenues [(2) + (3) + (8)]	6,544,321	713,335	4,479,431	1,003,602	1,906,834	1,508,030	405,217
Percentage of revenue attributable to:							
Employee contributions	14.5%	19.9%	11.4%	0.0%	7.5%	0.0%	22.4%
Employer contributions	31.0%	34.8%	42.9%	35.4%	38.7%	30.6%	45.4%
Investment income	54.5%	45.3%	45.7%	64.6%	53.8%	69.4%	32.2%
(12) Total expenditures [(4) + (5) + (6)]	5,184,157	772,606	3,124,528	487,213	1,787,233	824,677	300,248
Percentage of expenditure attributable to:							
Benefits paid	93.1%	69.5%	78.5%	95.7%	81.5%	95.9%	62.8%
Refund of contributions	4.7%	29.1%	19.4%	0.0%	16.6%	0.0%	35.8%
Administrative expenses	2.2%	1.4%	2.1%	4.3%	1.9%	4.1%	1.4%

Note: Revenues and expenditures exclude transfers in/out of assets.

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

Year	(a)	(b)	(c)	(d)	(e)	(f)	(g)	Fund Balance EOY 1/	
	Return on AVA	Assumed Return on AVA	Net Rate of Return (a)-(b)	Retiree Liabilities as of 12/31	Annual Transfer Amount Before Limit (c) * (d)	Fund Balance BOY	Distributions During Year	(h) Before Limit (e) + (f) + (g)	(i) After Limit
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
2008	3.74%	7.00%	0.00%	56,708,971	-	1,000,000	(100,000)	900,000	900,000
2009	4.46%	7.00%	0.00%	72,423,887	-	900,000	(100,000)	800,000	800,000
2010	4.71%	7.00%	0.00%	103,203,265	-	800,000	(99,900)	700,100	700,100

*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**

Year	(a)	(b)	(c)	1/	(d)	(e)	(f)	(g)	Fund Balance EOY 2/	
	Return on AVA	Assumed Return on AVA	Net Rate of Return (a)-(b)		Mean Value of Retiree Liabilities as of 12/31	Annual Transfer Amount Before Limit (c) * (d)	Fund Balance BOY	Distributions During Year	(h) Before Limit (e) + (f) + (g)	(i) After Limit
2002	1.92%	7.00%	0.00%		11,008,526	\$ 0	\$ 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
2008	3.74%	7.00%	0.00%		14,150,636	-	293,221	(64,900)	228,321	228,321
2009	4.46%	7.00%	0.00%		14,320,440	-	228,321	(62,800)	165,521	165,521
2010	4.71%	7.00%	0.00%		14,662,971	-	165,521	(62,800)	102,721	102,721

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

2/ 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 7 year period. The result must be no more than 30% from the market value of assets for the December 31, 2008 valuation. The percentage that the valuation assets can differ from the market value of assets will decrease each subsequent year by 2% until a 20% corridor is reached. In the December 31, 2010 valuation the corridor is 26%.

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

Divisions that are underfunded – 20 year open amortization

Divisions that are over-funded – 10 year open amortization

## 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 and re-evaluated for the December 31, 2008 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*
	2010	2009	2008	2007	2006	
Rate of Investment Return	4.7%	4.5%	3.7%	9.2%	6.3%	5.7%
Increase in Average Pay	(0.1)	2.2	2.5	5.3	1.2	2.2%
Real Rate of Return	4.8	2.3	1.2	3.9	5.1	3.5

\* 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, 2008 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%	2.8%	2.0%	7.0%	6.8%	6.0%	11.0%
2	4.0	2.8	2.0	4.0	6.8	6.0	8.0
3	4.0	2.8	2.0	4.0	6.8	6.0	8.0
4	4.0	2.8	2.0	4.0	6.8	6.0	8.0
5	4.0	2.8	0.5	4.0	6.8	4.5	8.0
6	4.0	2.8	0.5	4.0	6.8	4.5	8.0
7	4.0	2.8	0.5	0.5	6.8	4.5	4.5
8	4.0	2.8	0.5	0.5	6.8	4.5	4.5
9+	4.0	0.5	0.5	0.5	4.5	4.5	4.5

Actual average pay has increased at the following rates.

Year Ended December 31					5 Year
2010	2009	2008	2007	2006	Average
(0.1)%	2.2%	2.5%	5.3%	1.2%	2.2%

\* Compound rate of increase.

*The mortality table (a risk assumption)* used was the RP-2000 Mortality Table for males and females, projected 20 years. The assumptions were first used for the December 31, 2008 valuation.

Sample Ages	Single Life Retirement Values			
	Value at Retirement of \$1 Monthly for Life		Future Life Expectancy (Years)	
	Men	Women	Men	Women
50	\$152.58	\$154.61	32.77	34.63
55	144.15	146.80	28.04	29.88
60	133.48	137.08	23.47	25.31
65	120.71	125.53	19.17	21.02
70	106.09	112.39	15.22	17.06
75	89.18	97.66	11.58	13.47
80	71.11	81.35	8.42	10.23

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 RP-2000 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 Ages	Percent of Active Members Retiring within Next Year		
	General County, County Agency Mental Health and County Library	Sheriff's Office & Central Dispatch	Road Commission
50		18.8 %	
51		18.8	
52		18.8	
53		25.0	
54		25.0	
55	37.5 %	25.0	12.5 %
56	12.5	25.0	12.5
57	12.5	12.5	25.0
58	12.5	6.3	25.0
59	12.5	6.3	25.0
60	18.8	6.3	50.0
61	18.8	6.3	50.0
62	18.8	6.3	50.0
63	18.8	6.3	50.0
64	6.3	6.3	50.0
65	6.3	100.0	100.0
66	6.3		
67	6.3		
68	6.3		
69	6.3		
70	100.0		

These rates were first used for the December 31, 2008 valuation for all groups.

**Administrative Expenses.** 0.65% 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, 2008 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%	15.00%
	1	13.00	9.00	12.00
	2	12.00	7.00	10.50
	3	8.00	7.00	9.00
	4	8.00	7.00	9.00
25	5 & Over	7.65	3.00	6.00
30		7.65	3.00	3.00
35		6.80	2.00	3.00
40		5.10	2.00	3.00
45		3.40	1.75	2.00
50		3.40	1.00	2.00
55	0.85	0.50	1.00	
60	0.85	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	0.09%	0.08%
25	0.09	0.08
30	0.09	0.08
35	0.09	0.08
40	0.24	0.28
45	0.32	0.32
50	0.59	0.45
55	1.07	0.61
60	1.70	0.81

85% of the disabilities were assumed to be non-duty related. For the Sheriff's Office and Road Commission 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 Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (b-a)/c
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
12/31/08*#	184,967,843	199,860,437	14,892,594	92.5	43,961,798	33.9
12/31/09	188,779,278	211,333,497	22,554,219	89.3	42,893,801	52.6
12/31/10	192,859,386	231,680,911	38,821,525	83.2	38,418,135	101.0

\* 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 2011 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 7-year smoothing

Amortization Method

Level percent of payroll

Equivalent single amortization period

Mental Health 10 years, open

All Others 20 years, open

Principal actuarial assumptions (last revised for the 12/31/08 valuation):

- Net Investment Return\*

7.0%

- Projected Salary Increases\*

4.5% to 11.0%

- Cost-of-Living Adjustments

4.5%, certain Road Commission members only.

\* Includes pay inflation at 4.0%.