

# Monroe County Employees Retirement System

Actuarial Valuation as of December 31, 2014

January 2016





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January 2016

Board of Trustees  
Monroe County Employees Retirement System  
840 South Roessler Street  
Monroe, MI 48161

### **Certification of Actuarial Valuation**

Ladies and Gentlemen:

This report summarizes the actuarial valuation results of Monroe County Employees Retirement System as of December 31, 2014 performed by Buck Consultants, LLC.

The actuarial valuation is based on unaudited financial and member data provided by the Executive Director and staff of the Retirement System and summarized in this report. The benefits considered are those delineated in the plan as amended and restated effective December 31, 2014. The actuary did not verify the data submitted, but did perform tests for consistency and reasonableness.

All costs, liabilities and other factors under the Plan were determined in accordance with generally accepted actuarial principles and procedures. An actuarial cost method is used to measure the actuarial liabilities which we believe is reasonable. Buck Consultants, LLC is solely responsible for the actuarial data and actuarial results presented in this report. This report fully and fairly discloses the actuarial position of the Plan.

The Monroe County Employees Retirement System is funded by Employer and Member Contributions in accordance with the funding policy adopted by the Retirement Board. The funding objective for the Monroe County Employees Retirement System is to pay required contributions that remain level as a percent of Member Compensation. The Retirement Board has also established a funding policy objective that the required contributions be sufficient to pay the Normal Costs of active plan members, Plan expenses, and amortize the Unfunded Actuarial Accrued Liability as a level percent of Member Compensation over a declining period. As of this valuation, the period is 25 years. This period will continue to decrease by one each year until full funding is achieved, per the September 21, 2015 Board Meeting. Future unanticipated unfunded actuarial accrued liability will be amortized over a 25 year period from the point incurred, resulting in a schedule of UAAL payments.

In our opinion, the actuarial assumptions used are reasonable, taking into account the experience of the Plan and reasonable long-term expectations, and represent our best estimate of the anticipated long-term experience under the Plan. The actuary performs an analysis of Plan experience periodically and recommends changes if, in the opinion of the actuary, assumption changes are needed to more accurately reflect expected future experience.

As required under the ordinance Section 13.4, this valuation was prepared on the basis of the interest, salary and demographic assumptions that were determined from the Experience Study for the period January 1, 2010 to December 31, 2014 prepared by Buck Consultants and approved by the Board for use beginning with the December 31, 2014 actuarial valuation. These assumptions will remain in effect for valuation purposes until such time as the Board adopts revised assumptions, which is scheduled to be performed before the December 31, 2019 valuation.

The assumptions and methods used to determine the Actuarially Determined Contribution (ADC) of the Monroe County Employees Retirement System as outlined in this report and all supporting schedules meet the parameters and requirements for disclosure of Governmental Accounting Standards Board (GASB) Statement No. 67 & 68 for Financial Reporting for Pension Plans. Based on member data and asset information provided by the Executive Director and staff of the Retirement System, we have prepared the Schedule of Funding Progress and Schedule of Employer Contributions that are included in the Financial Section of the Comprehensive Annual Financial Report.

This report contains many historical schedules. Buck Consultants began performing these valuations beginning with the December 31, 2014 Annual Actuarial Valuation. Results prior to this date were replicated from the prior actuary and are included without audit or opinion.

Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. No one may make any representations or warranties based on any statements or conclusions contained in this report without the written consent of Buck.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of limited scope, Buck performed no analysis of the potential range of such future differences.

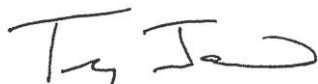
The undersigned are Enrolled Actuaries, an Associate or a Fellow of the Society of Actuaries and Members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all Applicable Actuarial Standards of Practice. We are available to answer any questions on the material contained in the report, or to provide explanations or further details as may be appropriate.

Respectfully submitted,

BUCK CONSULTANTS, LLC



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# Summary of Results

## Overview

The Monroe County Employees Retirement System provides pension and ancillary benefit payments to the terminated and retired employees of the Monroe County, Michigan. A Retirement Board comprised of employer, employee, and appointed representatives is responsible for administering the Plan and making investment decisions. This report presents the results of the actuarial valuation of the Plan benefits as of the valuation date of December 31, 2014.

## Purpose

An actuarial valuation is performed on the retirement plan annually as of the beginning of the fiscal year. The main purposes of the actuarial valuation detailed in this report are:

1. To determine if the Board’s funding policy for the Retirement Plan is being met considering current assets and the current employer and member contribution rates; or determine the employer contribution necessary to meet the Board’s funding policy for the Plan;
2. To disclose the funding assets and liability measures as of the valuation date;
3. To disclose the accounting measures for the Plan required by GASB No. 67 as of the end of the last fiscal year;
4. To review the current funded status of the Plan;
5. To compare actual and expected experience under the Plan during the last fiscal year;
6. And to report trends in contributions, assets, liabilities, and funded status over the last several years.

This actuarial valuation provides a “snapshot” of the funded position of the Retirement Plan based on the plan provisions, membership, assets, and actuarial assumptions as of the valuation date. Actuarial projections are also performed to provide a long-term view of the expected future funding status and contribution patterns.

## Membership

**Actives:** As of December 31, 2014, there were 713 employees in active service covered under the provisions of the Plan. The significant age, service, and salary information for these employees is summarized below, along with comparative figures from the last actuarial valuation one year earlier.

	<b>December 31, 2014</b>	<b>December 31, 2013</b>
Number of active employees	713	751
Average age	45.7	45.6
Average years of service	13.3	12.8
Total annual valuation salary	\$34,911,801	\$36,065,439
Average annual salary	48,965	48,023



The number of active members decreased by 5.1% from the previous valuation date. The average age of the active members increased by 0.1 years, and the average service increased by 0.5 years. The total annual valuation salary decreased by 3.2%. The average salary increased by 2.0% from the previous valuation. There were 679 active members who were also reported active in the December 31, 2013 actuarial valuation. The total salary for this group increased by 2.1%, which was lower than the 4.0% increase we expected for the group.

Distributions of active members by age, service, and salary are given in Section 5.2. The salaries shown for active members are the actual annualized year salaries reported.

A schedule of active member data and reconciliation of the active membership from the previous year is shown in Sections 5.3 and 5.4.

**Inactives:** In addition to the active members, there were 142 inactive vested members who did not elect to receive their accumulated contributions when they left covered employment. The significant age and annual benefit information for these inactive members are summarized below with comparative figures from the last actuarial valuation one year earlier.

	<b>December 31, 2014</b>	<b>December 31, 2013</b>
Number of inactive members	142	137
Average age	49.9	50.0
Average annual benefit payments	\$12,002	\$11,928

The number of inactive vested members increased by 3.6% from the previous valuation. The average age of the inactive vested members decreased by 0.1 years. The Average Monthly Pension Benefit for these members increased by 0.6% from the previous valuation.

Distributions of inactive members by age and pension benefit are given in Section 5.9.

**Retirees and Beneficiaries:** In addition to the active and inactive members, there were 708 retired members and 11 beneficiaries who are receiving monthly benefit payments on the valuation date. The significant age and annual benefit information for these members are summarized below with comparative figures from the last actuarial valuation performed one year earlier.

	<b>December 31, 2014</b>	<b>December 31, 2013</b>
Number of members receiving payments		
➤ Retirees	708	689
➤ Beneficiaries	11	11
➤ Total	719	700
Average age	68.0	67.6
Annual benefit amounts		
➤ Retirees	\$13,973,068	\$13,420,909
➤ Beneficiaries	\$147,783	\$147,783
➤ Total	\$14,120,850	\$13,568,692
Average annual benefit payments	\$19,640	\$19,384



The number of retired members and beneficiaries increased by 2.7% from the previous valuation date. The average age of the retired members and beneficiaries increased by 0.4 years. The total annual benefit payments for these members increased by 4.1% from the previous valuation date.

Distributions of retired members by age and form of payment are given in Section 5.6 through 5.9.

In our opinion, the membership data collected and prepared for use in this actuarial valuation meets the data quality standards required under Actuarial Standards of Practice No. 23.

### **Plan Assets**

The Plan's assets are held in trust and invested for the exclusive benefit of plan members. The trust is funded by member and employer contributions, and pays benefits directly to eligible members in accordance with plan provisions. The assets are audited annually and are reported at fair value. On a fair value basis, the Plan has Net Assets Available for Benefits of \$191.1 million as of December 31, 2014. This includes an increase of \$1.5 million over the Net Assets Available for Benefits of \$189.6 million as of December 31, 2013. During the prior year, the fair value of assets experienced an investment rate of return of 4.22%.

In order to reduce the volatility investment gains and losses can have on the Plan's actuarially required contribution and funded status, the Board has adopted a seven-year smoothing method to determine the actuarial value of assets used for funding purposes. This method recognizes gains and losses, i.e. the difference between actual investment return during the year and the expected return based on the valuation interest rate, on a level basis over a seven year period. In our opinion, this method complies with Actuarial Standards of Practice No. 44.

As of December 31, 2014, the assets available for benefits on an actuarial value basis were \$195.2 million. This includes a decrease of \$0.3 million over the actuarial value of assets of \$195.5 million as of December 31, 2013. During the prior year, the actuarial value of assets experienced an actuarial rate of return of 3.19%.

A summary of the assets held for investment, a summary of changes in assets, and the development of the actuarial value of assets is shown in Section 2.



## **Actuarial Experience**

Differences between the expected experience based on the actuarial assumptions and the actual experience create changes in the actuarial accrued liability, actuarial value of assets, and the unfunded actuarial accrued liability from one year to the next. These changes create an actuarial gain if the experience is favorable and an actuarial loss if the experience is unfavorable. The Plan experienced a total net actuarial loss of \$7.1 million during the prior year. Of this amount, \$6.4 million was attributable to Plan demographic experience and investment performance. The remaining \$0.7 million was attributable to a combination of assumption changes made from the latest experience review, along with the impact of converting the valuation from the prior actuary. This total net loss is about 2.8% of the plan's prior year actuarial accrued liability.

The demographic experience tracks actual changes in the plan's population compared to the assumptions for decrements such as mortality, turnover, and retirement, as well as pay increases. The Plan experienced a demographic gain of \$0.5 million during the year ending December 31, 2014. This gain decreased the unfunded actuarial accrued liability by \$0.5 million and increased the funded ratio by 0.26%.

Continued tracking of the demographic experience is warranted in order to confirm the appropriateness of the actuarial assumptions. Details of the demographic, economic, and other assumptions used to value the plan liabilities and normal cost can be found in Section 6. In our opinion, the economic assumptions comply with Actuarial Standards of Practice No. 27 and the demographic assumptions comply with Actuarial Standards of Practice No. 35.

On the asset side, the Plan experienced a loss on an actuarial value of assets basis. The actual rate of return on the actuarial value of plan assets for the year ending December 31, 2014 was approximately 3.19% compared to the assumption of 7.0%, resulting in an asset loss of \$7.6 million. This loss increased the unfunded actuarial accrued liability by \$7.6 million and decreased the funded ratio by 3.89%.

The rate of return on the fair value of assets for the year ending December 31, 2014 was lower than the assumed rate of 7.0%. The actuarial value of the assets recognizes only 1/7 of the 2014 loss on fair value, delaying the recognition of the remaining 6/7 over the next six years. Moreover, the actuarial value of assets also recognizes deferred portions of prior years' gains and losses on fair value. It should be noted that the plan's assumed asset return of 7.0% is a long-term rate and short-term performance is not necessarily indicative of expected long-term future returns.

A summary of the actuarial gains and losses experienced during the prior year is shown in Section 1.3 and Section 1.4.

## **Actuarial Contributions**

The Board has adopted a Funding Policy that requires contributions to be sufficient to pay the normal cost and amortize the unfunded actuarial accrued liability over a declining period. As of this valuation, the period is 25 years. This period will decrease 1 year for each year until reaching 1 at which point the amortization amount will be the unfunded actuarial accrued liability. Future unanticipated unfunded actuarial accrued liability will be amortized over a 25 year period from the point incurred, resulting in a schedule of UAAL payments.

The normal cost represents the cost of the benefits that accrue during the year for active members under the Entry Age Actuarial Cost Method. It is determined as a level percentage of pay which, if paid from entry age to the assumed retirement age, assuming all the actuarial assumptions are exactly met by plan experience, would



accumulate to a fund sufficient to pay all benefits provided by the Plan. The expected member contributions are subtracted from this amount to determine the employer normal cost. The employer normal cost for 2016 has been determined to be \$3.4 million, or 9.64% of pay.

The cost method also determines the actuarial accrued liability which represents the value of all accumulated past normal cost payments. This amount is compared to the actuarial value of assets to determine if the Plan is ahead or behind in funding as of the valuation date. The difference between the total actuarial accrued liability and the actuarial value of assets equals the amount of unfunded actuarial accrued liability or surplus (if negative) on the valuation date. This amount is amortized and added to the employer normal cost to determine the annual actuarially required employer contribution for the year.

The unfunded actuarial accrued liability as of December 31, 2014 is \$67.3 million. This represents an increase of \$7.6 million in the unfunded actuarial accrued liability from last year's amount of \$59.7 million.

The annual actuarially required employer contribution for 2016 is \$8.9 million, or 25.1% of pay. This represents a decrease of \$0.2 million in the employer contribution amount of \$9.1 million for 2015, or an increase of 1.5% of pay from last year's employer contribution rate of 23.6%.

The actuarial liabilities and development of the annual actuarial employer contribution is shown in Sections 1.1 and 1.2.

In our opinion, the measurement of the benefit obligations and determination of the actuarial cost of the Plan is performed in compliance with Actuarial Standards of Practice No. 4.

### **Funded Status**

The funded status is a measure of the progress that has been made in funding the plan as of the valuation date. It is determined as a ratio of the actuarial value of assets divided by the total actuarial accrued liability on the valuation date. A ratio of over 100% represents a plan that is ahead in funding, and a ratio of less than 100% represents a plan that is behind in funding on the valuation date.

As of December 31, 2014 the funded ratio of the Plan is 74.4%. This represents a decrease of 2.2% from last year's funded ratio of 76.6% as of December 31, 2013. The comments regarding funded ratios are not intended to measure the adequacy of funding in any analysis of a possible settlement of plan liabilities, nor is it intended to assess the need for, or the amount of, future contributions. Additionally, the measurement of a funded ratio using the market value of assets or actuarial value of assets would not be materially different.

A history of the unfunded actuarial accrued liability and the funded ratio is shown in Section 1.6.

## Accounting Information

The Governmental Accounting Standards Board (GASB) issues statements which establish financial reporting standards for defined benefit pension plans and accounting for the pension expenditures and expenses for governmental employers. The required financial reporting information for the Plan and the Employer under GASB No. 67 can be found in Section 3.

## Changes in Plan Provisions

There have been no changes in benefits or other plan provisions considered in this actuarial valuation since the last valuation performed as of December 31, 2013.

## Changes in Actuarial Assumptions, Methods, or Procedures

There have been no changes in the actuarial cost method, asset valuation method, or valuation procedures since the last actuarial valuation performed as of December 31, 2013, except as noted below. As recommended in Buck's experience review presentation and adopted by the Board at its September 21, 2015, the following changes were made:

- Retirement rates were increased for all divisions except for Road Commission.
- Disability rates were increased.
- Termination rates were increased for General Employees, Sheriff's Office, and Central Dispatch with less than five years of service, and rates were decreased for General Employees with more than five years of service.
- The mortality table was updated to the Fully Generational RP-2014 Blue Collar Mortality Table, using Projection Scale MP-2014.
- Salary growth rates were decreased for all divisions.
- The amortization method was changed to a 25-year closed amortization period. At each valuation, this period is decreased by one year. The amortization payments are determined to account for an increase of 2% each year.
- The inflation rate was changed to 3%

Due to the transition from the prior actuary, there were changes in the valuation procedures due to differences in the valuation software and calculation conventions. Buck was able to replicate the December 31, 2013 valuation results of the prior actuary within a reasonable tolerance.

All of the assumption changes listed above resulted in an increase of \$4.6 million to the actuarial accrued liability. The impact of the transition from the previous actuary was a decrease of \$3.9 million to the actuarial accrued liability. The net effect of these two items was an increase of \$0.7 million to the actuarial accrued liability.

## Comparative Summary of Key Actuarial Valuation Results

	Actuarial Valuation as of	
	December 31, 2014	December 31, 2013
<b>Summary of Member Data</b>		
Number of Members Included in the Valuation		
▪ Active Members	713	751
▪ Inactive Members	142	137
▪ Retirees and beneficiaries	719	700
▪ Total	<u>1,574</u>	<u>1,588</u>
Annual Payroll		
▪ Average (actual)	48,965	48,023
Annual Benefit Payments		
▪ Inactive Members(Average)	12,002	11,928
▪ Retirees and beneficiaries (Average)	19,640	19,384
<b>Summary of Assets</b>		
Fair Value		
▪ <i>Rate of Return</i>	4.22%	11.89%
Actuarial Value		
▪ <i>Rate of Return</i>	3.19%	4.14%
<b>Summary of Liabilities</b>		
Total Actuarial Accrued Liability	262,414,652	255,179,869
Actuarial Value of Assets	195,099,761	195,508,633
Unfunded Actuarial Accrued Liability	67,314,891	59,671,236
Funded Ratio	74.35%	76.62%
Maturity Ratio	61.89%	60.30%

## Section 1: Actuarial Funding Results



## Section 1.1 - Actuarial Liabilities and Normal Cost

Actuarial Liabilities based on December 31, 2014 Valuation	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Totals
<b>1. Present Value of Projected Benefits</b>								
Active Members								
Retirement Benefits	35,205,046	3,295,530	34,089,862	9,033,111	14,095,122	10,631,548	2,780,573	109,130,792
Withdrawal Benefits	4,927,492	631,086	1,781,428	813,632	1,365,901	1,549,792	224,167	11,293,498
Disability Benefits	3,988,228	557,498	2,844,087	732,427	1,781,822	1,171,254	299,733	11,375,049
Death Benefits	122,907	12,607	59,674	24,701	42,304	36,046	6,403	304,642
Total	44,243,673	4,496,721	38,775,051	10,603,871	17,285,149	13,388,640	3,310,876	132,103,981
2. Inactive Members with Deferred Benefits	4,919,735	0	909,054	517,637	648,607	4,285,013	0	11,280,046
3. Retired Members and Beneficiaries Receiving Benefits	69,094,408	8,343,459	36,990,654	8,677,201	13,479,848	11,798,988	2,736,442	151,121,000
<b>4. Total Present Value of Projected Benefits (1. + 2. + 3.)</b>	<b>118,257,816</b>	<b>12,840,180</b>	<b>76,674,759</b>	<b>19,798,709</b>	<b>31,413,604</b>	<b>29,472,641</b>	<b>6,047,318</b>	<b>294,505,027</b>
5. Present Value of Future Normal Costs	10,104,686	1,026,681	9,696,090	2,743,174	3,448,439	3,636,038	1,435,267	32,090,375
<b>6. Total Actuarial Accrued Liability (4. - 5.)</b>	<b>108,153,130</b>	<b>11,813,499</b>	<b>66,978,669</b>	<b>17,055,535</b>	<b>27,965,165</b>	<b>25,836,603</b>	<b>4,612,051</b>	<b>262,414,652</b>

Normal Cost for Fiscal year Beginning January 1, 2016	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Totals
<b>1. Active Members</b>								
a. Retirement Benefits	7.28%	5.62%	10.26%	7.79%	8.24%	\$ 321,327	10.15%	
b. Withdrawal Benefits	2.24%	2.82%	1.16%	1.50%	1.66%	82,049	1.10%	
c. Disability Benefits	1.20%	1.50%	1.27%	0.84%	1.51%	46,565	1.30%	
d. Death Benefits	0.03%	0.03%	0.02%	0.02%	0.03%	1,201	0.03%	
e. Administrative expense	0.50%	0.50%	0.50%	0.50%	0.50%	18,544	0.50%	
<b>2. Total Normal Cost (As a % of pay)</b>	<b>11.25%</b>	<b>10.47%</b>	<b>13.21%</b>	<b>10.65%</b>	<b>11.94%</b>	<b>\$ 469,686</b>	<b>13.08%</b>	
<b>3. Expected Member Contribution (As a % of pay<sup>^</sup>)</b>	<b>2.92%</b>	<b>0.00%</b>	<b>3.18%</b>	<b>0.00%</b>	<b>3.24%</b>	<b>0.00%</b>	<b>3.00%</b>	
<b>4. Expected Member Contribution (Dollar amount)</b>	<b>\$364,809</b>	<b>\$0</b>	<b>\$282,088</b>	<b>\$0</b>	<b>\$133,940</b>	<b>\$0</b>	<b>\$32,416</b>	<b>813,253</b>
<b>5. Employer Normal Cost (As a % of pay)</b>	<b>8.33%</b>	<b>10.47%</b>	<b>10.03%</b>	<b>10.65%</b>	<b>8.70%</b>	<b>n/a</b>	<b>10.08%</b>	
<b>6. Employer Normal Cost (Dollar amount*)</b>	<b>\$1,040,706</b>	<b>\$129,457</b>	<b>\$889,729</b>	<b>\$423,875</b>	<b>\$359,653</b>	<b>\$469,686</b>	<b>\$108,918</b>	<b>3,422,024</b>

<sup>^</sup> Salary weight average



## Section 1.2 - Actuarial Contributions

Item	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total
1. Total Actuarial Accrued Liability								
a. Active Members								
i. Retirement Benefits	28,610,867	2,718,796	26,256,774	6,998,270	11,674,229	8,111,517	1,628,541	85,998,994
ii. Withdrawal Benefits	2,607,552	337,804	894,114	351,720	821,250	833,248	95,380	5,941,068
iii. Death Benefits	96,052	9,878	43,502	18,791	33,349	26,515	3,380	231,467
iv. Disability Benefits	2,824,516	403,562	1,884,571	491,916	1,307,882	781,322	148,308	7,842,077
v. Total	34,138,987	3,470,040	29,078,961	7,860,697	13,836,710	9,752,602	1,875,609	100,013,606
b. Inactive Members with Deferred Benefits	4,919,735	0	909,054	517,637	648,607	4,285,013	0	11,280,046
c. Retired Members and Beneficiaries Receiving Benefits	69,094,408	8,343,459	36,990,654	8,677,201	13,479,848	11,798,988	2,736,442	151,121,000
d. Total (1.a.v. + 1.b. + 1.c.)	108,153,130	11,813,499	66,978,669	17,055,535	27,965,165	25,836,603	4,612,051	262,414,652
2. Actuarial Value of Assets*	75,628,194	6,604,597	47,027,634	14,935,081	23,022,509	24,786,576	3,095,170	195,099,761
3. Unfunded Actuarial Accrued Liability (UAAL) (1.d - 2.)	32,524,936	5,208,902	19,951,035	2,120,454	4,942,656	1,050,027	1,516,881	67,314,891
4. Funded Ratio (2. / 1.d)	69.93%	55.91%	70.21%	87.57%	82.33%	95.94%	67.11%	74.35%
5. Maturity Ratio [(1.b + 1.c) / 1.d]	68.43%	70.63%	56.58%	53.91%	50.52%	62.25%	59.33%	61.89%
6. Employer Contribution for fiscal 2016								
Employer Normal Cost Rate	11.25%	10.47%	13.21%	10.65%	11.94%	n/a	13.08%	
Member Contribution Rate	2.92%	0.00%	3.18%	0.00%	3.24%	n/a	3.00%	
UAAL Contribution Rate**	18.13%	29.22%	15.57%	3.48%	8.00%	n/a	9.76%	
Total Employer Contribution Rate	29.38%	39.69%	28.78%	14.13%	19.94%	n/a	22.84%	
Total Employer Contribution Dollar	3,670,582	490,749	2,552,982	562,381	824,308	556,609	246,795	8,904,406
7. Discount rate	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	
8. Amortization payments increase assumption	2.00%	2.00%	2.00%	2.00%	2.00%	n/a	2.00%	
9. Amortization period for 2016 contribution	25	25	25	25	25	25	25	

\* Does not include 13th Check amounts, which are passed through the ERS

\*\* Effective for the 12/31/2012 valuation, the Mental Health division is closed to new hires. A level dollar amortization is now being used.

Effective for the 12/31/2014 valuation, Unfunded liabilities for all other divisions are amortized over an closed 25-year period, per the 9/21/2015 Board Meeting.



## Section 1.3 - Actuarial (Gain) / Loss

(\$'s in 000's)

Development of Actuarial (Gain) / Loss	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Amount
1. Expected Actuarial Accrued Liability								
a. Actuarial Accrued Liability at December 31, 2013	104,093	11,729	64,540	17,172	28,415	24,953	4,278	255,180
b. Normal Cost at December 31, 2013	1,428	115	1,202	470	492	538	145	4,390
c. Interest on a. + b. to End of Year	7,386	829	4,602	1,235	2,023	1,784	310	18,169
d. Benefit Payments and Refund of Contributions with Interest to end of year	6,688	770	3,423	890	1,562	1,133	385	14,851
e. Expected Actuarial Accrued Liability (a. + b. + c. - d.)	106,219	11,903	66,921	17,987	29,368	26,142	4,348	262,888
f. Replicate prior actuary	(713)	(101)	(511)	(1,189)	(1,014)	(445)	110	(3,863)
h. Impact in Actuarial Accrued Liability at December 31,2014, Due to Change in Actuarial Assumptions (Experience Study)	2,735	30	653	583	(82)	687	(17)	4,589
2. Actuarial Accrued Liability at December 31, 2014	108,153	11,813	66,979	17,056	27,965	25,837	4,612	262,415
<b>3. Liability (Gain) / Loss (2. - 1.e.)</b>	<b>1,934</b>	<b>(90)</b>	<b>58</b>	<b>(931)</b>	<b>(1,403)</b>	<b>(305)</b>	<b>264</b>	<b>(473)</b>
4. Expected Actuarial Value of Assets								
a. Actuarial Value of Assets at December 31, 2013	76,852	6,764	46,564	14,875	22,810	24,500	3,181	195,546
b. Interest on a. to End of Year	5,380	473	3,259	1,041	1,597	1,715	223	13,688
c. Contributions Made	2,940	386	2,350	465	1,090	627	191	8,049
d. Interest on c. to End of Year	103	14	82	16	38	22	7	282
e. Benefit Payments and Refund of Contributions with Interest to end of year	6,688	770	3,423	890	1,562	1,133	385	14,851
f. Expected Actuarial Value of Assets at December 31,2014 (a. + b. + c. + d. - e.)	78,587	6,867	48,832	15,507	23,973	25,731	3,217	202,714
5. Actuarial Value of Assets as of December 31, 2014*	75,628	6,605	47,027	14,935	23,023	24,787	3,095	195,100
<b>6. Actuarial Asset (Gain) / Loss (4.g. - 5.)</b>	<b>2,959</b>	<b>262</b>	<b>1,805</b>	<b>572</b>	<b>950</b>	<b>944</b>	<b>122</b>	<b>7,614</b>
<b>7. Actuarial (Gain) / Loss (3. + 6.)</b>	<b>4,893</b>	<b>172</b>	<b>1,863</b>	<b>(359)</b>	<b>(453)</b>	<b>639</b>	<b>386</b>	<b>7,141</b>

\* Does not include 13th Check amounts, which are passed through the ERS

## Section 1.4 - Analysis of Financial Experience

### Analysis of Actuarial (Gains) and Losses

#### Resulting From Differences Between Assumed Experience and Actual Experience

Type of (Gain) or Loss	Year End December 31, 2014	As a % of Last Year's AAL
(1) COLA Experience	0	0.00%
(2) Salary Experience	(2,314)	-0.91%
(3) Investment Experience	7,614	2.98%
(4) Retirement Experience	461	0.18%
(5) Turnover Experience	394	0.15%
(6) Deaths among actives Experience	184	0.07%
(7) Disability retirements Experience	253	0.10%
(8) Inactive mortality Experience	(213)	-0.08%
(9) Return to work	(5)	0.00%
(10) New Entrants	41	0.02%
(11) Contribution Shortfall	0	0.00%
(12) (Gain) or Loss During Year From Experience, (1) + (2) + (3) + (4) + (5)+(6) + (7) + (8) + (9) + (10)+ (11)	6,415	2.51%
(13) Asset Valuation Method	0	0.00%
(14) Assumption changes (Experience Study)	4,589	1.80%
(15) Replicate prior actuary	(3,863)	-1.51%
(16) Total (Gain) or Loss During Year, (12) + (13)+ (14)+ (15)	7,141	2.80%

## Section 1.5 - Actuarial Balance Sheet

Financial Resources	December 31, 2014
1. Actuarial Value of Assets*	195,099,761
2. Present Value of Future Contributions	
(a) Expected Member contributions	6,459,080
(b) Employer Normal Cost	25,631,295
(c) State Appropriations	0
(d) Total	32,090,375
3. Unfunded Actuarial Accrued Liability/(Reserve)	67,314,891
4. Total Assets [1 + 2(d) + 3]	294,505,027

Benefit Obligations	December 31, 2014
1. Present Value of Future Benefits	
(a) Active members	132,103,981
(b) Inactive members	11,280,046
(c) Retirees, disabilities and beneficiaries	151,121,000
(d) Total	294,505,027

\* Does not include 13th Check amounts, which are passed through the ERS

## Section 1.6 - History of UAAL and Funded Ratio

(\$'s in 000's)

Valuation Date	Actuarial Value of Assets (AVA) (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (AVA as a % of AAL) (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (b-a)/( c )
December 31, 2005	163,152	163,642	490	99.7%	41,048	1.2%
December 31, 2006	169,284	174,001	4,717	97.3%	41,821	11.3%
December 31, 2007 *	181,320	186,841	5,521	97.0%	43,152	12.8%
December 31, 2008	184,968	199,861	14,893	92.5%	43,962	33.9%
December 31, 2009 *#	188,779	211,333	22,554	89.3%	42,894	52.6%
December 31, 2010	192,859	231,681	38,822	83.2%	38,418	101.1%
December 31, 2011	192,014	240,886	48,872	79.7%	38,892	125.7%
December 31, 2012	193,740	244,371	50,631	79.3%	37,588	134.7%
December 31, 2013	195,509	255,180	59,671	76.6%	36,065	165.5%
December 31, 2014 #	195,100	262,415	67,315	74.3%	34,912	192.8%

\*The Retirement System provisions were amended.

# Reflects a change in valuation assumptions.

## Section 1.7 - Solvency Test

Valuation Date	Aggregate Accrued Liability For:			Valuation Assets	Portion of Accrued Liabilities Covered by Assets		
	(1)	(2)	(3) Active Members (Employer- Financed Portion)		(1)	(2)	(3)
	Active Member Contributions	Inactive Members					
December 31, 2005	313	72,558	90,771	163,152	100.00%	100.00%	99.46%
December 31, 2006	329	81,937	91,735	169,284	100.00%	100.00%	94.86%
December 31, 2007	358	89,052	97,431	181,320	100.00%	100.00%	94.33%
December 31, 2008	218	92,358	107,285	184,968	100.00%	100.00%	86.12%
December 31, 2009	196	107,910	103,227	188,779	100.00%	100.00%	78.15%
December 31, 2010	1,837	140,914	88,930	192,859	100.00%	100.00%	56.35%
December 31, 2011	663	145,172	95,051	192,014	100.00%	100.00%	48.58%
December 31, 2012	770	147,070	96,531	193,740	100.00%	100.00%	47.55%
December 31, 2013	732	153,870	100,578	195,509	100.00%	100.00%	40.67%
December 31, 2014	774	162,401	99,240	195,100	100.00%	100.00%	32.17%

## Section 2: Plan Assets

## Section 2.1 - Summary of Fair Value of Assets

Asset Category	Fair Value as of Dec. 31, 2014		Fair Value as of Dec. 31, 2013	
	Amount	%	Amount	%
<b>1. Cash and Short-Term Investments</b>				
a. Cash and cash equivalents	5,493,272	2.88%	7,272,451	3.84%
b. Other short-term	0	0.00%	0	0.00%
c. Total	5,493,272	2.88%	7,272,451	3.84%
<b>2. Investments at Fair Value</b>				
a. U.S. Treasury and agencies	13,657,567	7.16%	16,770,170	8.86%
b. Fixed Income	15,636,041	8.20%	23,286,970	12.30%
c. Domestic Stocks and Equity	142,984,139	74.97%	128,807,119	68.05%
d. International Equity	0	0.00%	10,818,716	5.72%
e. Real Estate	7,414,394	3.89%	2,329,552	1.23%
f. Hedge Funds	5,531,409	2.90%	0	0.00%
g. Total	185,223,550	97.12%	182,012,527	96.16%
<b>3. Other Assets</b>	0	0.00%	0	0.00%
<b>4. Total Assets (1.c + 2.g + 3.)</b>	190,716,822	100.00%	189,284,978	100.00%
<b>5. Receivables</b>				
a. Interest and Dividends	240,308		444,553	
b. Investments Sold	0		0	
c. Other Receivables	483,029		716,282	
d. Total	723,337		1,160,835	
<b>6. Payables</b>				
a. Payable for Investments Purchased	0		0	
b. Securities Lending Obligation in Excess of Collateral	0		347,334	
c. Accounts Payable and Accrued Liabilities	386,365		457,342	
d. Total	386,365		804,676	
<b>7. Net Assets for Pension Benefits [4. + 5.d – 6.d.]</b>	<b>191,053,794</b>		<b>189,641,137</b>	

## Section 2.2 - Changes in Fair Value of Assets

Transactions	December 31, 2014	December 31, 2013
<b>Additions</b>		
<b>1. Contributions</b>		
a. Contributions from Employers	7,275,798	7,239,324
b. Contributions from Plan Members	773,806	731,761
c. Total	8,049,604	7,971,085
<b>2. Net Investment Income</b>		
a. Interest and Dividends	3,364,737	4,485,659
b. Net Appreciation(Depreciation)	5,376,977	16,944,164
c. Rental Income	0	0
d. Net Securities Lending Income	0	30618
e. Securities Lending Unrealized Gain/(Loss)	0	0
f. Miscellaneous	0	0
g. Total	8,741,714	21,460,441
h. Investment Expense	875,616	987,410
i. Net Investment Income	7,866,098	20,473,031
<b>3. Total Additions</b>	<b>15,915,702</b>	<b>28,444,116</b>
<b>Deductions</b>		
<b>4. Benefits and Expenses</b>		
a. Retirement Benefits	14,044,628	13,454,068
b. Refund of Contributions	303,661	434,673
c. Death	0	0
d. Supplemental Payment	0	0
e. Administrative Expenses	154,756	207,058
<b>5. Total Deductions</b>	<b>14,503,045</b>	<b>14,095,799</b>
<b>6. Net Increase</b>	<b>1,412,657</b>	<b>14,348,317</b>
<b>7. Net Assets Held in Trust for Pension Benefits</b>		
a. Beginning of Year	189,641,137	175,292,820
b. End of Year	191,053,794	189,641,137

## Section 2.3 - Actuarial Value of Assets

Development of Actuarial Value of Assets		Amount																																
1. Actuarial Value of Assets as of December 31, 2013		195,545,754																																
2. Unrecognized Return as of December 31, 2013		(5,904,617)																																
3. Fair Value of Assets as of December 31, 2013(1. + 2.)		189,641,137																																
4. Contributions																																		
(a) Member (includes purchased service)		773,806																																
(b) Employer		7,275,798																																
(c) State appropriations		0																																
(d) Total		8,049,604																																
5. Distributions																																		
(a) Benefit payments		14,044,628																																
(b) Refund of contributions		303,661																																
(c) Administrative Expenses		154,756																																
(d) Total		14,503,045																																
6. Expected Return at 7.00% on																																		
(a) Item 1		13,688,203																																
(b) Item 4 (d)		281,736																																
(c) Item 5 (d)		507,607																																
(d) Total [(a) + (b) - (c)]		13,462,332																																
7. Actual Return on Fair Value for Fiscal year		7,866,098																																
8. Return to be Spread for Fiscal year (7. - 6.d)		(5,596,234)																																
9. Total Fair Value of Assets as of December 31, 2014		191,053,794																																
10. Return to be Spread																																		
	<table border="1"> <thead> <tr> <th>Fiscal Year</th> <th>Return to be Spread</th> <th>Unrecognized Percent</th> <th>Unrecognized Return</th> </tr> </thead> <tbody> <tr> <td>2014</td> <td>(5,596,234)</td> <td>86%</td> <td>(4,796,772)</td> </tr> <tr> <td>2013</td> <td>7,122,977</td> <td>71%</td> <td>5,087,841</td> </tr> <tr> <td>2012</td> <td>1,377,360</td> <td>57%</td> <td>787,063</td> </tr> <tr> <td>2011</td> <td>(16,851,119)</td> <td>43%</td> <td>(7,221,908)</td> </tr> <tr> <td>2010</td> <td>2,712,239</td> <td>29%</td> <td>774,925</td> </tr> <tr> <td>2009</td> <td>8,420,191</td> <td>14%</td> <td>1,202,884</td> </tr> <tr> <td colspan="3"><b>Total</b></td> <td><b>(4,165,967)</b></td> </tr> </tbody> </table>	Fiscal Year	Return to be Spread	Unrecognized Percent	Unrecognized Return	2014	(5,596,234)	86%	(4,796,772)	2013	7,122,977	71%	5,087,841	2012	1,377,360	57%	787,063	2011	(16,851,119)	43%	(7,221,908)	2010	2,712,239	29%	774,925	2009	8,420,191	14%	1,202,884	<b>Total</b>			<b>(4,165,967)</b>	
Fiscal Year	Return to be Spread	Unrecognized Percent	Unrecognized Return																															
2014	(5,596,234)	86%	(4,796,772)																															
2013	7,122,977	71%	5,087,841																															
2012	1,377,360	57%	787,063																															
2011	(16,851,119)	43%	(7,221,908)																															
2010	2,712,239	29%	774,925																															
2009	8,420,191	14%	1,202,884																															
<b>Total</b>			<b>(4,165,967)</b>																															
11. Primary Actuarial Value of Assets (9. - 10.)		195,219,761																																
12. Corridor																																		
(a) Lower Limit: 80%* 9.		152,843,035																																
(b) Upper Limit: 120%* 9.		229,264,553																																
(c) Adjustment to 11. to fit Limits		0																																
13. Actuarial Value of Assets (11. + 12.c.)		<b>195,219,761</b>																																
14. Recognized Rate of Return for the Year on Actuarial Value of Assets*		<b>3.19%</b>																																
15. Rate of Return for the Year on Market Value of Assets(2x7./[3.+9.-7.])		<b>4.22%</b>																																

\*The rate of return is based on the change in the actuarial value of assets from last year to this year.  
The rate of return is calculated assuming contributions and disbursements occur halfway through the year.



## Section 2.3 - Actuarial Value of Assets

(cont'd)

### Allocation of Retirement Systems Assets

	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total
(1) Valuation assets at start of year	76,852,485	6,763,700	46,564,485	14,874,764	22,809,525	24,500,071	3,180,724	195,545,754
(2) Employee contributions	328,786	3,587	276,327	-	130,836	-	34,270	773,806
(3) Employer contributions	2,611,031	382,673	2,073,767	465,000	959,392	627,471	156,464	7,275,798
(4) Benefits paid	6,376,170	744,096	3,211,254	860,348	1,508,965	1,092,636	251,159	14,044,628
(5) Refund of contributions	85,503	-	95,965	-	-	1,786	120,407	303,661
(6) Administrative expense	60,822	5,353	36,851	11,772	18,052	19,389	2,517	154,756
Allocated on BOT asset value								
(7) Average valuation assets [(1)+0.5*{(2)+(3)-(4)-(5)-(6))]	75,061,146	6,582,106	46,067,497	14,671,204	22,591,131	24,256,901	3,089,050	192,319,035
(8) Investment income Allocated on average valuation assets	2,391,512	209,711	1,467,750	467,437	719,773	772,845	98,420	6,127,448
(9) Transfer in	-	-	-	-	-	-	-	-
Transfer out	-	-	-	-	-	-	-	-
Net transfer of assets	-	-	-	-	-	-	-	-
(10) 13th check assets*	33,125	5,625	10,625	-	70,000	-	625	120,000
(11) <b>Valuation assets at end of year**</b> [(1)+(2)+(3)-(4)-(5)-(6)+(8)+(9)-(10)]	<b>75,628,194</b>	<b>6,604,597</b>	<b>47,027,634</b>	<b>14,935,081</b>	<b>23,022,509</b>	<b>24,786,576</b>	<b>3,095,170</b>	<b>195,099,761</b>
(11) Total Revenues [(2)+(3)+(8)]	5,331,329	595,971	3,817,844	932,437	1,810,001	1,400,316	289,154	14,177,052
Percentage of revenue attributable to:								
Employee contributions	6.2%	0.6%	7.2%	0.0%	7.2%	0.0%	11.9%	5.5%
Employer contributions	49.0%	64.2%	54.3%	49.9%	53.0%	44.8%	54.1%	51.3%
Investment income	44.8%	35.2%	38.5%	50.1%	39.8%	55.2%	34.0%	43.2%
(12) Total Expenditures [(4)+(5)+(6)]	6,522,495	749,449	3,344,070	872,120	1,527,017	1,113,811	374,083	14,503,045
Percentage of expenditures attributable to:								
Benefits paid	97.8%	99.3%	96.0%	98.7%	98.8%	98.1%	67.1%	96.8%
Refund of contributions	1.3%	0.0%	2.9%	0.0%	0.0%	0.2%	32.2%	2.1%
Administrative expenses	0.9%	0.7%	1.1%	1.3%	1.2%	1.7%	0.7%	1.1%

\* See section 6.3 for details

\*\*Does not include 13th Check amounts, which are passed through the ERS



## Section 2.4 - Road Commission 13th Check Excess Reserve Fund

Year	(a)	(b)	(c)	(d)	(e)	(f)	(g)	Fund Balance EOY	
	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	Distributio ns During Year	(h) Before Limit (e) + (f) + (g)	(i) After Limit
2005	3.30%	7.00%	0.00%	\$12,726,404	\$0	\$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
2011	3.48%	7.00%	0.00%	15,024,437	-	102,721	(65,100)	37,621	37,621
2012	3.59%	7.00%	0.00%	14,546,449	70,000	37,621	(70,500)	37,121	37,121
2013	4.14%	7.00%	0.00%	14,530,255	70,500	37,121	(70,500)	37,121	37,121
2014	3.19%	7.00%	0.00%	13,479,848	70,000	37,121	(73,891)	33,230	33,230

Years prior to 2014 are taken from Prior actuary

## Section 2.5 - Historical Asset Rate of Return

Year Ending 30-Jun	Actuarial Value Annual Recognized Rate of Return	Fair Value Annual Market Rate of Return
2005	3.30%	8.24%
2006	6.34%	11.36%
2007	9.24%	7.80%
2008	3.74%	-19.30%
2009	4.46%	14.47%
2010	4.71%	9.65%
2011	3.48%	-2.07%
2012	3.59%	8.97%
2013	4.14%	11.89%
2014	3.19%	4.22%

## Section 2.6 - Forecast of Expected Benefit Payments

Year Ending December 31	Active Employees	Retired Members, Disabled Members and Beneficiaries	Grand Total
2015	282	14,117	14,399
2016	769	14,023	14,792
2017	1,342	14,002	15,344
2018	1,965	13,907	15,872
2019	2,654	13,749	16,403
2020	3,518	13,592	17,110
2021	4,450	13,445	17,895
2022	5,454	13,268	18,722
2023	6,490	13,121	19,611
2024	7,574	12,917	20,491
2025	8,801	12,718	21,519
2026	9,999	12,452	22,451
2027	11,134	12,181	23,315
2028	12,115	11,912	24,027
2029	13,075	11,617	24,692
2030	14,077	11,328	25,405
2031	14,915	11,035	25,950
2032	15,768	10,695	26,463
2033	16,611	10,386	26,997
2034	17,387	10,051	27,438
2035	18,189	9,691	27,880
2036	18,726	9,296	28,022
2037	19,211	8,917	28,128
2038	19,649	8,500	28,149
2039	19,928	8,069	27,997
2040	20,245	7,644	27,889
2041	20,339	7,215	27,554
2042	20,399	6,766	27,165
2043	20,389	6,318	26,707
2044	20,247	5,881	26,128
2045	20,058	5,442	25,500

\*Forecast based on the present employees without assumption about replacement employees

## Section 3: Accounting Information

## Section 3.1 - Schedule of Funding Progress

(\$'s in 000's)

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]
December 31, 2005	163,152	163,642	490	99.70%	41,048	1.2%
December 31, 2006	169,284	174,001	4,717	97.29%	41,821	11.3%
December 31, 2007 *	181,320	186,841	5,521	97.05%	43,152	12.8%
December 31, 2008	184,968	199,861	14,893	92.55%	43,962	33.9%
December 31, 2009 *#	188,779	211,333	22,554	89.33%	42,894	52.6%
December 31, 2010	192,859	231,681	38,822	83.24%	38,418	101.1%
December 31, 2011	192,014	240,886	48,872	79.71%	38,892	125.7%
December 31, 2012	193,740	244,371	50,631	79.28%	37,588	134.7%
December 31, 2013	195,509	255,180	59,671	76.62%	36,065	165.5%
December 31, 2014 #	195,100	262,415	67,315	74.35%	34,912	192.8%

\*The Retirement System provisions were amended.

# Reflects a change in valuation assumptions.



## Section 3.2 - Schedule of Employer Contributions

(\$'s in 000's)

Valuation Date December 31	Active Members	Valuation Payroll	Employer Contributions as Payroll Percents						
			General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch
2010	818	38,418,135	22.23%	32.33%	24.11%	11.23%	18.35%	10.42%	20.48%
2011	813	38,891,988	23.75%	34.12%	26.26%	13.11%	19.15%	9.92%	19.42%
2012	771	37,587,747	24.18%	31.98%	26.92%	14.01%	22.02%	n/a	19.94%
2013	751	36,065,439	26.19%	37.77%	29.40%	14.00%	22.72%	n/a	21.59%
2014	713	34,911,801	29.38%	39.69%	28.78%	14.13%	19.94%	n/a	22.84%

### Section 3.3 - Notes to Trend Data

#### Actuarial Assumptions, Methods and Additional Information for Funding

Valuation Date:	12/31/2014
Actuarial Cost Method	Entry Age
Amortization Method:	Level percent of payroll, closed *
Remaining amortization period	25 **
Asset valuation method	7-year adjusted market value
Actuarial assumptions:	
-Investment Rate of Return	7%
-Amortization payments increase assumption	2.00%
-Payroll Increases	3.5%-5.5% Vary by Employee Group
-Inflation Assumption	3.00%

\*Effective for the 12/31/2012 valuation, the Mental Health division is closed to new hires.

A level dollar amortization is being used.

\*\*At the September 21, 2015 Board meeting, the Board adopted a 25-year amortization for the 12/31/2014 valuation, its period is scheduled to decline by one year each year until reach 1 year. Future unanticipated unfunded actuarial accrued liability will be amortized over a 25 year period from the point incurred, resulting in a schedule of UAAL payments.

#### Actuarial Assumptions, Methods and Additional Information for GASB No. 67 & 68

The total pension liability as of December 31, 2014 was determined by rolling forward the total pension liability as of December 31, 2013 to December 31, 2014 using the following actuarial methods and assumptions, applied to all periods included in the measurement. For all other assumptions such as mortality table, retirement rates, termination rates, and disability rates used to determine the total pension liability, please refer to the December 31, 2013 actuarial valuation report for more information.

Valuation Date:	12/31/2013
Actuarial Cost Method:	Entry Age-Level percent of payroll, Open *
Amortization Method:	For pension expense; the difference between expected and actual liability experience and changes of assumptions are amortized over the the average of the expected remaining service lives of all members. The differences between projected and actual earnings are amortized over a closed period of five years.
Asset valuation method:	Market Value
Actuarial assumptions:	
-Investment Rate of Return	7%
-Payroll Increases	4.5%-11.0% Vary by Employee Group
-Inflation Assumption	4.00%
-discount rate	6.95%

\*Effective for the 12/31/2012 valuation, the Mental Health division is closed to new hires.

A level dollar amortization is being used.

**Section 3.4 - Schedule of Changes in Net Pension Liability as of December 31, 2014**

**The GASB Statement No. 67 Change in Net Pension Liability:**

Schedule of Changes In Net Pension Liability	Fiscal Year ending Dec. 31, 2014
<b>Total pension liability</b>	
Service Cost	\$ 4,475,473
Interest	17,360,575
Plan changes	-
Differences between expected and actual experience	-
Changes of assumptions	-
Benefit payments, including refunds of member contributions	(14,348,289)
Net change in total pension liability	7,487,759
Total pension liability - beginning	252,491,120
Total pension liability - ending (a)	<u>\$ 259,978,879</u>
<b>Plan fiduciary net position</b>	
Contributions - employer	\$ 7,275,798
Contributions - member	773,806
Net investment income	7,866,098
Benefit payments, including refunds of member contributions	(14,348,289)
Administrative expense	(154,756)
Other	-
Net change in plan fiduciary net position	1,412,657
Plan fiduciary net position - beginning	189,641,137
Plan fiduciary net position - ending (b)	<u>\$ 191,053,794</u>
Net pension liability (asset) - ending (a)-(b)	\$ 68,925,085

### Section 3.5 - Net Pension Liability (Asset)

The GASB Statement No. 67 Net Pension Liability

Net pension liability (asset)	Dec. 31, 2014	Dec. 31, 2013
Total pension liability	\$ 259,978,879	\$ 252,491,120
Plan fiduciary net position	<u>191,053,794</u>	<u>189,641,137</u>
Net pension liability (asset)	<u>\$ 68,925,085</u>	<u>\$ 62,849,983</u>
Plan fiduciary net position as a percentage of the total pension liability	73.49%	75.11%
Covered employee payroll	\$ 34,911,801	
Net pension liability (asset) as a percentage of covered employee payroll	197.43%	

## Section 3.6 - Sensitivity

### The GASB Statement No. 67 Sensitivity of Net Pension Liability

<b>Sensitivity of the Net Pension Liability to Changes in Discount Rates at Dec. 31, 2014</b>	<b>1% Decrease</b>	<b>Current Discount Rate</b>	<b>1 % increase</b>
Discount rate	5.95%	6.95%	7.95%
Total pension liability	\$ 291,450,052	\$ 259,978,879	\$ 233,408,747
Plan fiduciary net position	<u>191,053,794</u>	<u>191,053,794</u>	<u>191,053,794</u>
Net pension liability (asset)	\$ 100,396,258	\$ 68,925,085	\$ 42,354,953

### Section 3.7 - Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

Under GASB 68, employers participating in the Plan would recognize a total pension expense of \$ 9,204,572 for the FY's year beginning after June 15, 2014 which has been determined as of December 31, 2014.

Service Cost	\$ 4,475,473
Interest	17,360,575
Difference between Expected and Actual Experience	0
Change of Assumptions	0
Member Contributions	(773,806)
Projected Earnings on Plan Investments	(13,049,009)
Difference between Expected and Actual Earnings	1,036,583
Administrative Expense	154,756
Other	0
Changes of Benefit Terms	<u>0</u>
Total Pension Expense	\$ 9,204,572

At December 31, 2014, Monroe County ERS reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources after recognizing the amortization amount for the first year:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 0	\$ 0
Changes of assumptions	0	0
Net difference between projected and actual earnings on pension plan investments	<u>4,146,328</u>	<u>0</u>
Total	\$ 4,146,328	\$ 0

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended December 31	
2014	\$ 1,036,583
2015	1,036,583
2016	1,036,583
2017	1,036,583
2018	1,036,579
Thereafter	0

### Section 3.8 – Employer Proportion of GASB Items as of December 31, 2014

All items determined under GASB 68 are allocated to employers as a pro rata share of employer contributions, as follows:

Employer	Total 2014 Employer Contributions	Ratio of Employer contribution over Total Contribution
<b>General County</b>	\$2,611,031	35.89%
<b>County Agency</b>	\$382,673	5.26%
<b>Sheriff's Office</b>	\$2,073,767	28.50%
<b>County Library</b>	\$465,000	6.39%
<b>Road Commission</b>	\$959,392	13.19%
<b>Mental Health</b>	\$627,471	8.62%
<b>Central Dispatch</b>	\$156,464	2.15%
<b>TOTAL</b>	\$7,275,798	100.00%

### Section 3.9 - Supporting Exhibits

The discount rate used to measure the total pension liability was 6.95%. The projection of cash flows used to determine the discount rate assumed that System contributions will continue to follow the current funding policy. Based on those assumptions and the valuation interest rate of 7.00%, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members prior to 2070. After that, fiduciary net position was projected to be insufficient to make all projected future benefit payments of current plan members. Therefore, the 20 year Municipal Bond Rate as of December 31, 2014 of 3.34% was applied to all periods of subsequent projected benefit payments to determine the discount rate. Please see following two tables for additional detail.

## Section 3.9 – Supporting Exhibits

(cont'd)

**Table1- Projection of Fiduciary Net Position**

Fiscal Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit payments (c)	Projected Investment Earnings* (d)	Projected Ending Fiduciary Net Position (e)=(a)+(b)-(c)+(d)
2014	189,641,137	8,049,604	14,503,045	7,866,098	191,053,794
2015	191,053,794	10,163,179	14,516,753	13,221,390	199,921,610
2016	199,921,610	10,366,007	15,013,611	13,831,847	209,105,853
2017	209,105,853	10,254,394	15,530,519	14,452,745	218,282,472
2018	218,282,472	10,208,263	16,054,180	15,075,166	227,511,721
2019	227,511,721	10,176,078	16,858,536	15,691,934	236,521,198
2020	236,521,198	9,909,439	17,730,196	16,282,757	244,983,198
2021	244,983,198	9,622,575	18,602,137	16,834,539	252,838,175
2022	252,838,175	9,415,287	19,624,976	17,341,333	259,969,819
2023	259,969,819	9,145,426	20,599,267	17,797,003	266,312,981
2024	266,312,981	8,854,931	21,701,066	18,192,294	271,659,140
2025	271,659,140	8,560,102	22,712,311	18,520,812	276,027,742
2026	276,027,742	8,264,162	23,706,016	18,781,477	279,367,365
2027	279,367,365	7,962,988	24,485,738	18,977,419	281,822,034
2028	281,822,034	7,669,854	25,317,902	19,109,861	283,283,848
2029	283,283,848	7,390,149	26,225,775	19,170,622	283,618,843
2030	283,618,843	7,103,780	26,984,915	19,157,479	282,895,187
2031	282,895,187	6,823,634	27,720,426	19,071,275	281,069,670
2032	281,069,670	6,544,686	28,434,283	18,908,741	278,088,813
2033	278,088,813	6,259,270	28,997,979	18,670,362	274,020,466
2034	274,020,466	5,979,893	29,605,626	18,354,532	268,749,265
2035	268,749,265	5,715,117	29,882,361	17,966,595	262,548,617
2036	262,548,617	5,461,953	30,114,701	17,515,557	255,411,426
2037	255,411,426	5,224,688	30,190,909	17,004,982	247,450,188
2038	247,450,188	5,004,519	29,975,935	16,447,514	238,926,285
2039	238,926,285	4,806,742	29,953,712	15,844,696	229,624,012
2040	229,624,012	4,621,978	29,550,007	15,201,200	219,897,182
2041	219,897,182	4,419,061	29,116,502	14,528,392	209,728,133
2042	209,728,133	4,245,769	28,555,144	13,830,141	199,248,899
2043	199,248,899	4,075,627	27,851,621	13,115,263	188,588,168
2044	188,588,168	3,913,412	27,041,735	12,391,680	177,851,526
2045	177,851,526	3,751,564	26,142,703	11,665,917	167,126,303
2046	167,126,303	3,600,503	25,210,005	10,942,509	156,459,311
2047	156,459,311	3,444,518	24,352,331	10,220,378	145,771,876
2048	145,771,876	3,296,727	23,296,783	9,504,029	135,275,848
2049	135,275,848	3,155,795	22,230,875	8,801,682	125,002,451
2050	125,002,451	3,020,309	21,143,190	8,115,871	114,995,440
2051	114,995,440	2,886,061	20,088,685	7,447,589	105,240,405
2052	105,240,405	2,754,496	18,957,087	6,799,738	95,837,552
2053	95,837,552	2,625,275	17,802,320	6,177,432	86,837,939
2054	86,837,939	2,501,400	16,671,926	5,582,687	78,250,101
2055	78,250,101	2,380,787	15,542,199	5,016,858	70,105,547
2056	70,105,547	2,262,307	14,442,885	4,481,068	62,406,037
2057	62,406,037	2,147,432	13,385,476	3,975,091	55,143,084
2058	55,143,084	2,034,964	12,342,171	3,499,264	48,335,141
2059	48,335,141	1,926,738	11,313,528	3,054,922	42,003,273
2060	42,003,273	1,824,020	10,333,319	2,642,404	36,136,379
2061	36,136,379	1,725,194	9,391,329	2,261,232	30,731,476
2062	30,731,476	1,630,760	8,494,092	1,910,987	25,779,131
2063	25,779,131	1,540,658	7,636,223	1,591,194	21,274,760

**Section 3.9 – Supporting Exhibits  
(cont'd)**

**Table1- Projection of Fiduciary Net Position**

<b>Fiscal Year</b>	<b>Projected Beginning Fiduciary Net Position (a)</b>	<b>Projected Total Contributions (b)</b>	<b>Projected Benefit payments (c )</b>	<b>Projected Investment Earnings* (d)</b>	<b>Projected Ending Fiduciary Net Position (e)=(a)+(b)-(c)+(d)</b>
2064	21,274,760	1,455,551	6,828,397	1,301,184	17,203,098
2065	17,203,098	1,375,019	6,072,065	1,039,820	13,545,872
2066	13,545,872	1,299,208	5,368,602	805,782	10,282,260
2067	10,282,260	1,228,206	4,718,365	597,603	7,389,704
2068	7,389,704	1,162,092	4,121,577	413,697	4,843,916
2069	4,843,916	1,100,862	3,577,445	252,394	2,619,727
2070	2,619,727	1,044,500	3,084,929	111,966	691,264
2071	691,264	992,909	2,642,601	0	0
2072	0	945,968	2,248,391	0	0
2073	0	833,544	1,899,741	0	0
2074	0	693,022	1,594,145	0	0
2075	0	572,310	1,328,238	0	0
2076	0	469,374	1,098,601	0	0
2077	0	382,221	901,806	0	0
2078	0	308,973	734,576	0	0
2079	0	247,878	593,587	0	0
2080	0	197,315	475,527	0	0
2081	0	155,800	377,628	0	0
2082	0	121,992	297,192	0	0
2083	0	94,706	231,647	0	0
2084	0	72,881	178,783	0	0
2085	0	55,586	136,678	0	0
2086	0	42,017	103,513	0	0
2087	0	31,480	77,665	0	0
2088	0	23,379	57,724	0	0
2089	0	17,210	42,516	0	0
2090	0	12,557	31,045	0	0
2091	0	9,082	22,474	0	0
2092	0	6,510	16,114	0	0
2093	0	4,624	11,440	0	0
2094	0	3,251	8,035	0	0
2095	0	2,263	5,580	0	0
2096	0	1,558	3,829	0	0
2097	0	1,060	2,593	0	0
2098	0	713	1,734	0	0
2099	0	474	1,144	0	0
2100	0	311	745	0	0
2101	0	201	479	0	0
2102	0	129	305	0	0
2103	0	82	193	0	0
2104	0	51	120	0	0
2105	0	32	74	0	0
2106	0	20	46	0	0
2107	0	12	27	0	0
2108	0	7	16	0	0
2109	0	4	9	0	0
2110	0	2	5	0	0
2111	0	1	2	0	0
2112	0	1	1	0	0
2113	0	0	1	0	0

\* The Contributions and benefit payments occur halfway through the year and Investment Return is net of Administrative Expenses

**Section 3.9 – Supporting Exhibits**  
**(cont'd)**

**Table2- Actuarial Present Values of Projected Benefit Payments**

Fiscal Year	Period	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	Projected Benefit Payments		Present Value of Benefit Payments		
				"Funded" Portion	"UnFunded" Portion	Funded Portion at 7.00%*	Unfunded Portion at 3.34%	Using a Single Discount Rate of 6.95%
(a)	(b)	(c)	(d)	(e)	(f)= (d)/(1+i)^(a)	(g)= (e)/(1+3.34%)^(a)	(h)=(c)/(1+6.95%)^(a)	
2014	1	189,641,137	14,503,045	14,503,045	0	13,554,248	0	13,560,901
2015	2	191,053,794	14,516,753	14,516,753	0	12,679,494	0	12,691,945
2016	3	199,921,610	15,013,611	15,013,611	0	12,255,579	0	12,273,635
2017	4	209,105,853	15,530,519	15,530,519	0	11,848,159	0	11,871,440
2018	5	218,282,472	16,054,180	16,054,180	0	11,446,408	0	11,474,530
2019	6	227,511,721	16,858,536	16,858,536	0	11,233,554	0	11,266,681
2020	7	236,521,198	17,730,196	17,730,196	0	11,041,475	0	11,079,471
2021	8	244,983,198	18,602,137	18,602,137	0	10,826,613	0	10,869,202
2022	9	252,838,175	19,624,976	19,624,976	0	10,674,687	0	10,721,939
2023	10	259,969,819	20,599,267	20,599,267	0	10,471,623	0	10,523,139
2024	11	266,312,981	21,701,066	21,701,066	0	10,310,020	0	10,365,827
2025	12	271,659,140	22,712,311	22,712,311	0	10,084,538	0	10,144,101
2026	13	276,027,742	23,706,016	23,706,016	0	9,837,154	0	9,900,114
2027	14	279,367,365	24,485,738	24,485,738	0	9,495,991	0	9,561,459
2028	15	281,822,034	25,317,902	25,317,902	0	9,176,373	0	9,244,172
2029	16	283,283,848	26,225,775	26,225,775	0	8,883,577	0	8,953,606
2030	17	283,618,843	26,984,915	26,984,915	0	8,542,733	0	8,614,302
2031	18	282,895,187	27,720,426	27,720,426	0	8,201,474	0	8,274,243
2032	19	281,069,670	28,434,283	28,434,283	0	7,862,316	0	7,935,970
2033	20	278,088,813	28,997,979	28,997,979	0	7,493,629	0	7,567,541
2034	21	274,020,466	29,605,626	29,605,626	0	7,150,146	0	7,224,215
2035	22	268,749,265	29,882,361	29,882,361	0	6,744,842	0	6,818,058
2036	23	262,548,617	30,114,701	30,114,701	0	6,352,602	0	6,424,712
2037	24	255,411,426	30,190,909	30,190,909	0	5,952,036	0	6,022,554
2038	25	247,450,188	29,975,935	29,975,935	0	5,523,041	0	5,591,220
2039	26	238,926,285	29,953,712	29,953,712	0	5,157,894	0	5,224,129
2040	27	229,624,012	29,550,007	29,550,007	0	4,755,493	0	4,818,925
2041	28	219,897,182	29,116,502	29,116,502	0	4,379,186	0	4,439,777
2042	29	209,728,133	28,555,144	28,555,144	0	4,013,791	0	4,071,324
2043	30	199,248,899	27,851,621	27,851,621	0	3,658,787	0	3,713,053
2044	31	188,588,168	27,041,735	27,041,735	0	3,319,995	0	3,370,890
2045	32	177,851,526	26,142,703	26,142,703	0	2,999,643	0	3,047,122
2046	33	167,126,303	25,210,005	25,210,005	0	2,703,387	0	2,747,525
2047	34	156,459,311	24,352,331	24,352,331	0	2,440,575	0	2,481,639
2048	35	145,771,876	23,296,783	23,296,783	0	2,182,045	0	2,219,849
2049	36	135,275,848	22,230,875	22,230,875	0	1,945,990	0	1,980,675
2050	37	125,002,451	21,143,190	21,143,190	0	1,729,700	0	1,761,394
2051	38	114,995,440	20,088,685	20,088,685	0	1,535,918	0	1,564,829
2052	39	105,240,405	18,957,087	18,957,087	0	1,354,579	0	1,380,754
2053	40	95,837,552	17,802,320	17,802,320	0	1,188,846	0	1,212,413
2054	41	86,837,939	16,671,926	16,671,926	0	1,040,521	0	1,061,669
2055	42	78,250,101	15,542,199	15,542,199	0	906,554	0	925,434
2056	43	70,105,547	14,442,885	14,442,885	0	787,320	0	804,111
2057	44	62,406,037	13,385,476	13,385,476	0	681,942	0	696,828
2058	45	55,143,084	12,342,171	12,342,171	0	587,654	0	600,776
2059	46	48,335,141	11,313,528	11,313,528	0	503,436	0	514,930
2060	47	42,003,273	10,333,319	10,333,319	0	429,737	0	439,764
2061	48	36,136,379	9,391,329	9,391,329	0	365,011	0	373,711
2062	49	30,731,476	8,494,092	8,494,092	0	308,540	0	316,050
2063	50	25,779,131	7,636,223	7,636,223	0	259,233	0	265,672



**Section 3.9 – Supporting Exhibits  
(cont'd)**

**Table2- Actuarial Present Values of Projected Benefit Payments**

Fiscal Year	Period	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	Projected Benefit Payments		Present Value of Benefit Payments		
				"Funded" Portion	"UnFunded" Portion	Funded Portion at 7.00%*	Unfunded Portion at 3.34%	Using a Single Discount Rate of 6.95%
(a)	(b)	(c)	(d)	(e)	(f)= (d)/(1+i)^(a)	(g)= (e)/(1+3.34%)^(a)	(h)=(c)/(1+6.95%)^(a)	
2064	51	21,274,760	6,828,397	6,828,397	0	216,644	0	222,134
2065	52	17,203,098	6,072,065	6,072,065	0	180,045	0	184,698
2066	53	13,545,872	5,368,602	5,368,602	0	148,772	0	152,692
2067	54	10,282,260	4,718,365	4,718,365	0	122,199	0	125,481
2068	55	7,389,704	4,121,577	4,121,577	0	99,760	0	102,489
2069	56	4,843,916	3,577,445	3,577,445	0	80,925	0	83,180
2070	57	2,619,727	3,084,929	0	3,084,929	0	474,887	67,068
2071	58	691,264	2,642,601	0	2,642,601	0	393,659	53,720
2072	59	0	2,248,391	0	2,248,391	0	324,118	42,737
2073	60	0	1,899,741	0	1,899,741	0	265,014	33,764
2074	61	0	1,594,145	0	1,594,145	0	215,201	26,492
2075	62	0	1,328,238	0	1,328,238	0	173,515	20,639
2076	63	0	1,098,601	0	1,098,601	0	138,881	15,962
2077	64	0	901,806	0	901,806	0	110,321	12,252
2078	65	0	734,576	0	734,576	0	86,961	9,331
2079	66	0	593,587	0	593,587	0	68,001	7,051
2080	67	0	475,527	0	475,527	0	52,717	5,281
2081	68	0	377,628	0	377,628	0	40,512	3,922
2082	69	0	297,192	0	297,192	0	30,853	2,886
2083	70	0	231,647	0	231,647	0	23,272	2,103
2084	71	0	178,783	0	178,783	0	17,381	1,518
2085	72	0	136,678	0	136,678	0	12,858	1,085
2086	73	0	103,513	0	103,513	0	9,424	768
2087	74	0	77,665	0	77,665	0	6,842	539
2088	75	0	57,724	0	57,724	0	4,921	375
2089	76	0	42,516	0	42,516	0	3,508	258
2090	77	0	31,045	0	31,045	0	2,479	176
2091	78	0	22,474	0	22,474	0	1,736	119
2092	79	0	16,114	0	16,114	0	1,205	80
2093	80	0	11,440	0	11,440	0	828	53
2094	81	0	8,035	0	8,035	0	563	35
2095	82	0	5,580	0	5,580	0	378	23
2096	83	0	3,829	0	3,829	0	251	15
2097	84	0	2,593	0	2,593	0	165	9
2098	85	0	1,734	0	1,734	0	106	6
2099	86	0	1,144	0	1,144	0	68	4
2100	87	0	745	0	745	0	43	2
2101	88	0	479	0	479	0	27	1
2102	89	0	305	0	305	0	16	1
2103	90	0	193	0	193	0	10	0
2104	91	0	120	0	120	0	6	0
2105	92	0	74	0	74	0	4	0
2106	93	0	46	0	46	0	2	0
2107	94	0	27	0	27	0	1	0
2108	95	0	16	0	16	0	1	0
2109	96	0	9	0	9	0	0	0
2110	97	0	5	0	5	0	0	0
2111	98	0	2	0	2	0	0	0
2112	99	0	1	0	1	0	0	0
2113	100	0	1	0	1	0	0	0

## **Section 4: Actuarial Funding Projections**

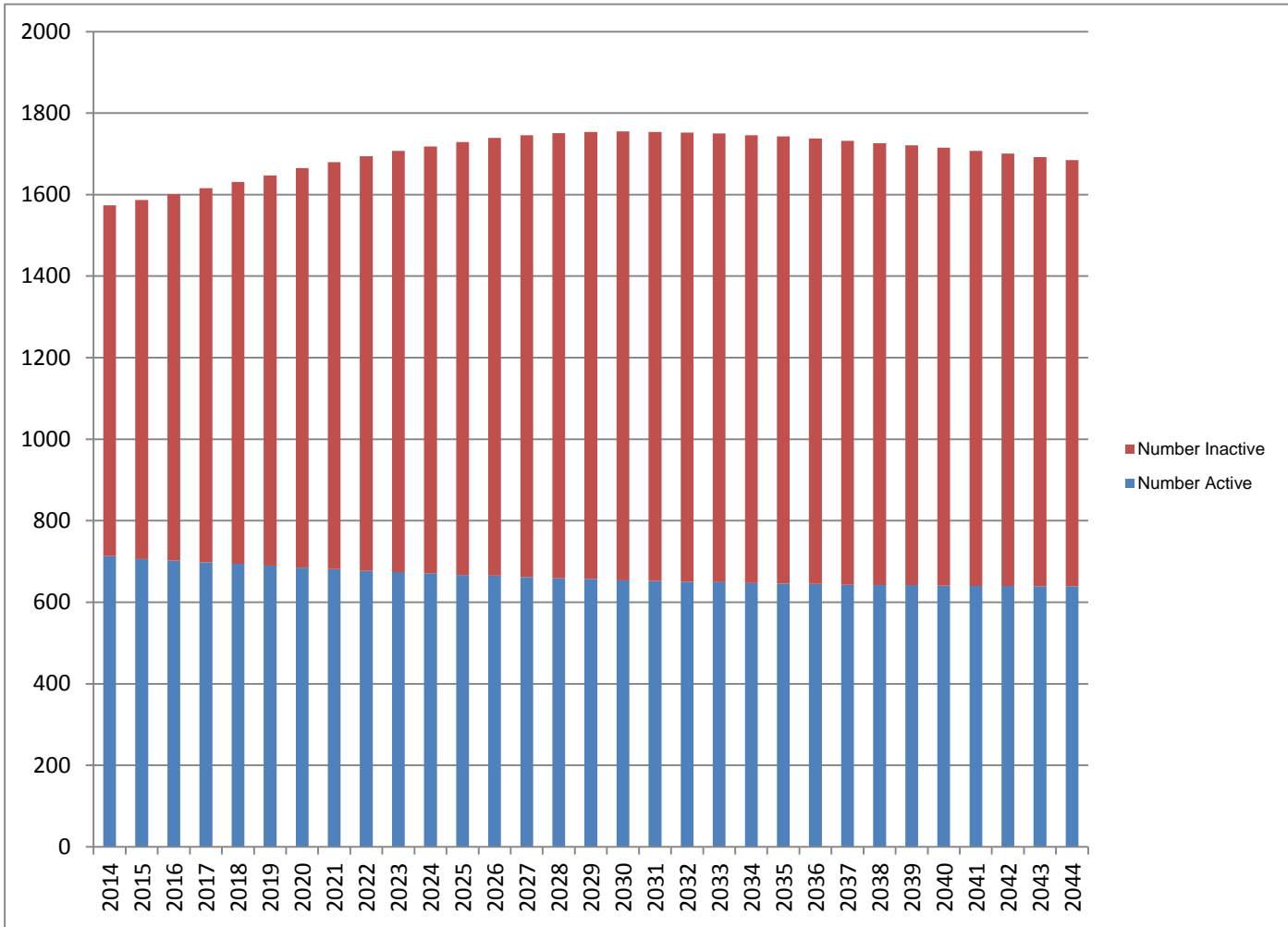
## Section 4.1 - Projection Assumptions and Methods

### Actuarial Assumptions

- 7.0% investment return on the Fair Value of Assets in all future years.
- Prospectively, asset valuation method smoothing recognizes the excess of actual over expected returns as opposed to unrealized returns.
- Actuarial assumptions and methods as described in Section 6. All future demographic experience is assumed to be exactly realized.
- The actuarially calculated contribution rate is contributed each year.
- Projections assume a 0% increase in the total active member population. All future new active members are expected to enter the plan upon date of hire and contribution rates are determined as a percent of total payroll.
- The Mental Health division is closed to new entrants.
- Period of amortization is 25 years and reduced by 1 year for each year and amortization payments increase 2% each year. Future unanticipated unfunded actuarial accrued liability will be amortized over a 25 year period from the point incurred, resulting in a schedule of UAAL payments.

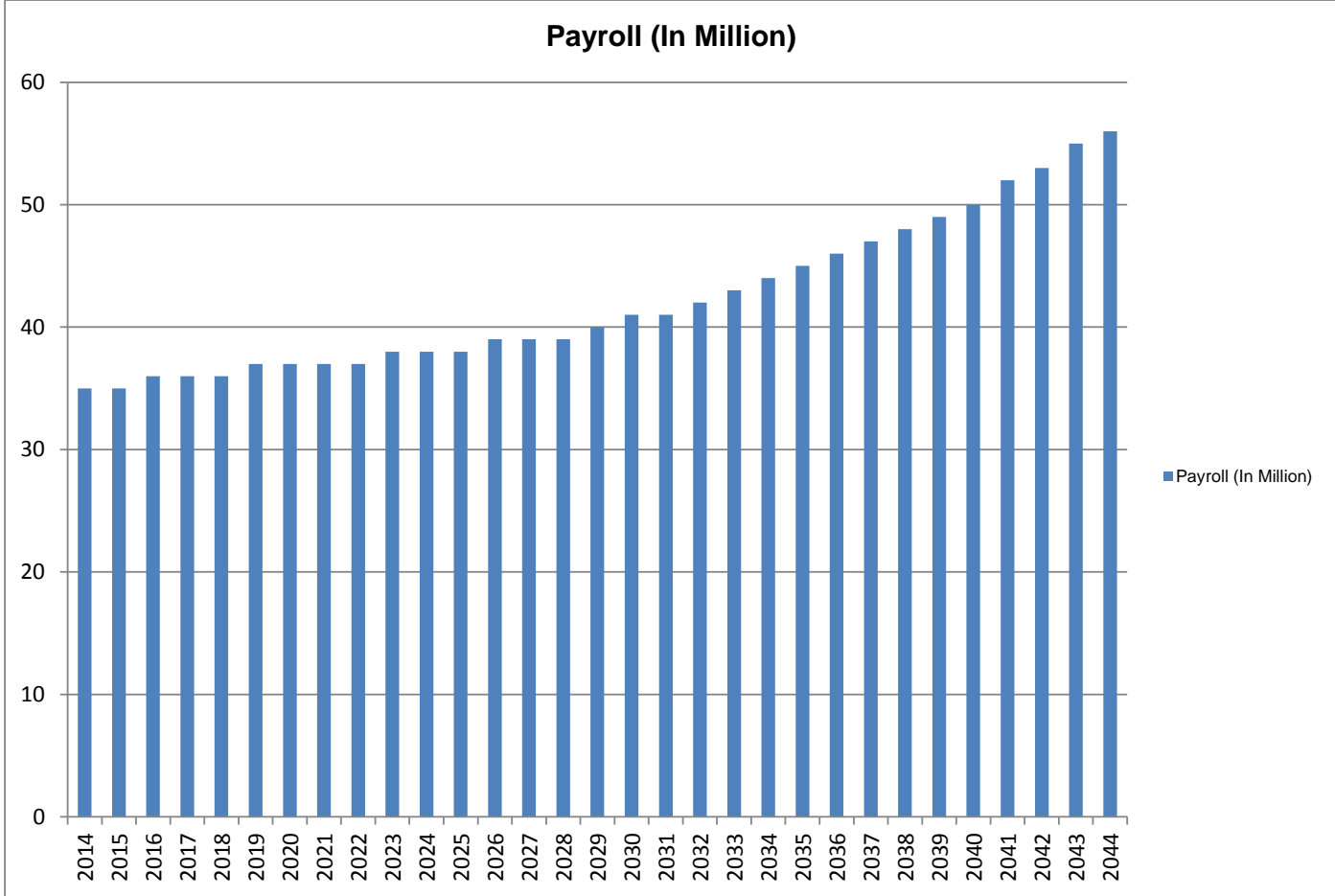
### Section 4.2 - Membership Projection

Projected Member Count

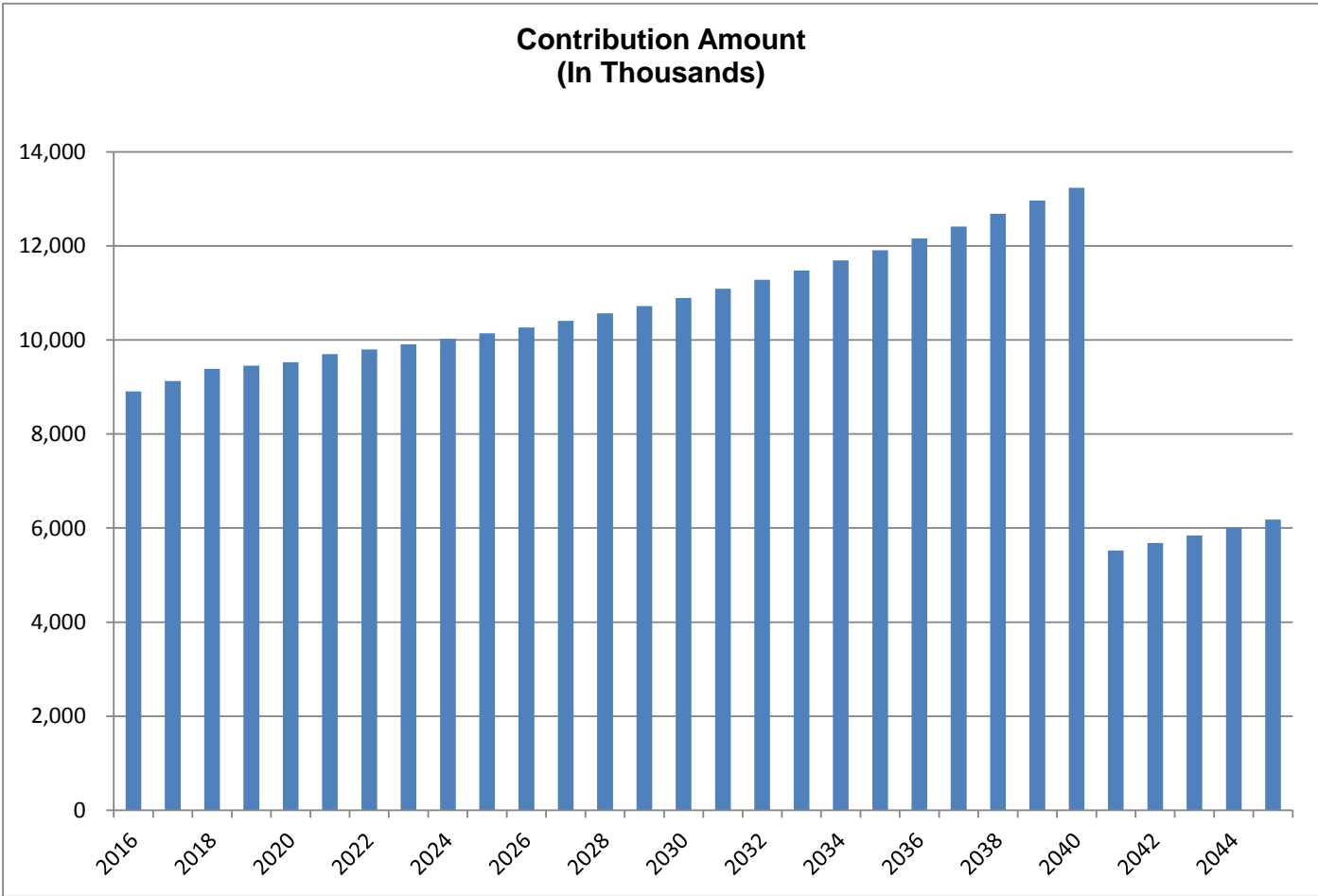


Section 4.2 (cont'd)  
Membership Projection

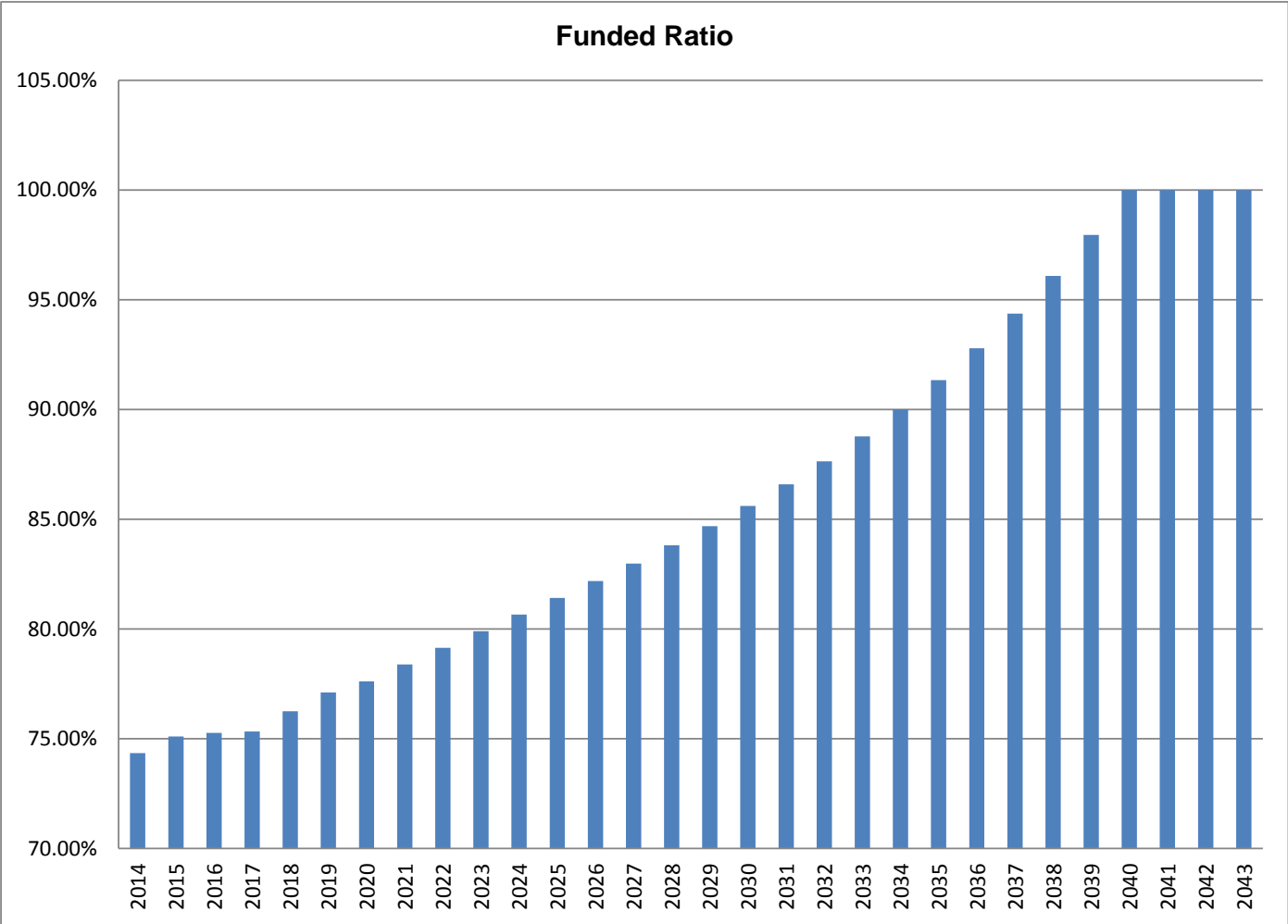
Projected Current and New Member Payroll



Section 4.3 - Projection of Employer Contribution Amounts



Section 4.4 - Projection of Funded Status





Section 4.5 - Table of Projected Actuarial Results (\$'s in 000's)

Valuation Amounts on December 31											Amounts For Fiscal Year			
Year	Actuarial Asset	Accrued Liability								Funded Ratio	Surplus (Deficit)	Year	Total Contribs *	Benefit Payment
		General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total					
2014	195,100	108,153	11,813	66,979	17,056	27,965	25,837	4,612	262,415	74.35%	(67,315)	2016	8,904	14,793
2015	202,829	110,246	12,005	69,398	17,749	28,922	26,921	4,816	270,057	75.11%	(67,228)	2017	9,126	15,344
2016	209,142	112,329	12,214	71,901	18,420	29,943	28,001	5,039	277,847	75.27%	(68,705)	2018	9,386	15,872
2017	215,168	114,314	12,441	74,494	19,051	31,002	29,041	5,285	285,628	75.33%	(70,460)	2019	9,454	16,404
2018	223,744	116,243	12,679	77,174	19,682	32,062	30,028	5,553	293,421	76.25%	(69,677)	2020	9,524	17,111
2019	232,243	118,117	12,928	79,904	20,295	33,129	30,996	5,840	301,209	77.10%	(68,966)	2021	9,699	17,895
2020	239,657	119,930	13,163	82,556	20,889	34,189	31,925	6,141	308,793	77.61%	(69,136)	2022	9,797	18,723
2021	247,757	121,647	13,365	85,152	21,472	35,261	32,747	6,460	316,104	78.38%	(68,347)	2023	9,911	19,612
2022	255,670	123,248	13,542	87,631	22,046	36,318	33,479	6,797	323,061	79.14%	(67,391)	2024	10,026	20,493
2023	263,332	124,679	13,691	89,987	22,629	37,317	34,127	7,156	329,586	79.90%	(66,254)	2025	10,141	21,526
2024	270,736	125,933	13,822	92,217	23,226	38,226	34,705	7,533	335,662	80.66%	(64,926)	2026	10,267	22,470
2025	277,706	126,997	13,920	94,242	23,839	39,007	35,166	7,923	341,094	81.42%	(63,388)	2027	10,405	23,354
2026	284,316	127,886	13,993	96,058	24,474	39,688	35,553	8,286	345,938	82.19%	(61,622)	2028	10,562	24,096
2027	290,615	128,655	14,059	97,647	25,130	40,258	35,828	8,650	350,227	82.98%	(59,612)	2029	10,721	24,799
2028	296,747	129,298	14,124	99,038	25,831	40,757	36,020	9,014	354,082	83.81%	(57,335)	2030	10,894	25,556
2029	302,741	129,857	14,194	100,194	26,570	41,212	36,115	9,375	357,517	84.68%	(54,776)	2031	11,087	26,151
2030	308,548	130,300	14,268	101,119	27,345	41,580	36,101	9,743	360,456	85.60%	(51,908)	2032	11,278	26,718
2031	314,340	130,735	14,348	101,856	28,187	41,870	35,943	10,107	363,046	86.58%	(48,706)	2033	11,476	27,315
2032	320,146	131,182	14,420	102,382	29,107	42,074	35,675	10,454	365,294	87.64%	(45,148)	2034	11,689	27,864
2033	325,941	131,606	14,481	102,716	30,106	42,196	35,294	10,745	367,144	88.78%	(41,203)	2035	11,908	28,452
2034	331,788	131,929	14,540	102,865	31,185	42,249	34,845	11,019	368,632	90.01%	(36,844)	2036	12,159	28,792
2035	337,660	132,173	14,583	102,817	32,367	42,208	34,313	11,233	369,694	91.33%	(32,034)	2037	12,414	29,151
2036	343,842	132,389	14,634	102,656	33,647	42,118	33,697	11,448	370,589	92.78%	(26,747)	2038	12,679	29,475
2037	350,346	132,555	14,667	102,419	35,009	41,995	32,976	11,663	371,284	94.36%	(20,938)	2039	12,964	29,670
2038	357,237	132,604	14,712	102,147	36,427	41,852	32,180	11,888	371,810	96.08%	(14,573)	2040	13,239	29,961
2039	364,698	132,602	14,759	101,925	37,899	41,682	31,325	12,116	372,308	97.96%	(7,610)	2041	5,526	30,083
2040	372,657	132,514	14,826	101,726	39,415	41,515	30,371	12,290	372,657	100.00%	0	2042	5,679	30,206
2041	373,058	132,415	14,919	101,573	40,976	41,362	29,361	12,452	373,058	100.00%	0	2043	5,842	30,309
2042	373,513	132,334	15,046	101,474	42,533	41,229	28,272	12,625	373,513	100.00%	0	2044	6,009	30,340
2043	374,054	132,273	15,176	101,434	44,093	41,107	27,163	12,808	374,054	100.00%	0	2045	6,183	30,372

Note: Forecast based on the employee group as of December 31, 2014 with assumption about replacement employees

\* A breakdown of contributions can be found on Section 4.6



**Section 4.6 - Table of Projection of Total Contribution Amounts**

<b>Valuation as of Dec. 31,</b>	<b>Contribution for Fiscal Year*</b>	<b>General County</b>	<b>County Agency</b>	<b>Sheriff's Office</b>	<b>County Library</b>	<b>Road Commission</b>	<b>Central Dispatch</b>	<b>Mental Health</b>	<b>Total Contribution</b>
2014	2016	3,670,000	491,000	2,553,000	562,000	824,000	247,000	557,000	8,904,000
2015	2017	3,763,000	504,000	2,616,000	584,000	850,000	255,000	554,000	9,126,000
2016	2018	3,865,000	518,000	2,688,000	617,000	877,000	263,000	558,000	9,386,000
2017	2019	3,902,000	527,000	2,712,000	620,000	890,000	268,000	535,000	9,454,000
2018	2020	3,947,000	534,000	2,722,000	635,000	904,000	273,000	509,000	9,524,000
2019	2021	4,026,000	545,000	2,765,000	662,000	930,000	279,000	492,000	9,699,000
2020	2022	4,084,000	553,000	2,776,000	680,000	951,000	284,000	469,000	9,797,000
2021	2023	4,142,000	562,000	2,800,000	705,000	967,000	290,000	445,000	9,911,000
2022	2024	4,204,000	571,000	2,816,000	729,000	987,000	295,000	424,000	10,026,000
2023	2025	4,270,000	581,000	2,825,000	756,000	1,008,000	299,000	402,000	10,141,000
2024	2026	4,342,000	591,000	2,840,000	782,000	1,033,000	297,000	382,000	10,267,000
2025	2027	4,418,000	603,000	2,853,000	809,000	1,056,000	302,000	364,000	10,405,000
2026	2028	4,502,000	615,000	2,875,000	840,000	1,083,000	305,000	342,000	10,562,000
2027	2029	4,589,000	628,000	2,893,000	871,000	1,111,000	307,000	322,000	10,721,000
2028	2030	4,683,000	641,000	2,916,000	901,000	1,138,000	313,000	302,000	10,894,000
2029	2031	4,782,000	655,000	2,949,000	935,000	1,168,000	316,000	282,000	11,087,000
2030	2032	4,884,000	668,000	2,979,000	969,000	1,197,000	318,000	263,000	11,278,000
2031	2033	4,989,000	682,000	3,017,000	1,003,000	1,228,000	311,000	246,000	11,476,000
2032	2034	5,094,000	695,000	3,055,000	1,038,000	1,257,000	317,000	233,000	11,689,000
2033	2035	5,200,000	709,000	3,100,000	1,075,000	1,291,000	314,000	219,000	11,908,000
2034	2036	5,312,000	724,000	3,156,000	1,110,000	1,326,000	323,000	208,000	12,159,000
2035	2037	5,428,000	739,000	3,219,000	1,143,000	1,362,000	329,000	194,000	12,414,000
2036	2038	5,545,000	754,000	3,283,000	1,179,000	1,399,000	336,000	183,000	12,679,000
2037	2039	5,667,000	771,000	3,357,000	1,214,000	1,437,000	344,000	174,000	12,964,000
2038	2040	5,793,000	788,000	3,430,000	1,247,000	1,476,000	341,000	164,000	13,239,000
2039	2041	2,045,000	199,000	1,136,000	1,023,000	922,000	172,000	29,000	5,526,000
2040	2042	2,102,000	205,000	1,168,000	1,053,000	951,000	178,000	22,000	5,679,000
2041	2043	2,162,000	210,000	1,202,000	1,085,000	981,000	184,000	18,000	5,842,000
2042	2044	2,224,000	217,000	1,236,000	1,118,000	1,011,000	189,000	14,000	6,009,000
2043	2045	2,292,000	224,000	1,269,000	1,152,000	1,043,000	193,000	10,000	6,183,000

\* Contribution amounts listed are to be paid during the fiscal year ended December 31

## Section 5: Member Data



## Section 5.1 - Summary of Members Included

As of December 31	General County		County Agency		Sheriff's Office		County Library		Road Commission		Mental Health		Central Dispatch		Total	
	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013	2014	2013
<b>Active Members</b>																
(1) Number	278	287	25	24	143	136	98	122	73	72	75	89	21	21	713	751
(2) Average Age	46.6	46.9	43.1	42.3	41.1	41.4	48.4	47.6	48.4	47.6	47.4	45.9	39	38.5	45.7	45.6
(3) Average Credited Service	13.0	13.0	15.2	14.8	14.4	14.9	10.0	8.6	17.8	17.1	13.1	11.4	8.7	9.8	13.3	12.8
(4) Average Annual Earnings	44,006	43,369	48,275	48,773	60,137	60,275	38,763	37,900	54,955	53,755	53,988	53,125	48,190	48,964	48,965	48,023
<b>Retirees, Disableds and Beneficiaries</b>																
(1) Number	346	335	30	30	122	119	48	46	81	83	81	78	11	9	719	700
(2) Average Age	68.5	68.0	66.3	65.4	64.5	63.9	71.0	71.9	73.1	72.2	65.8	65.4	60.9	61.4	68.0	67.6
(3) Average Monthly Pension Benefit	1,563	1,537	2,049	2,049	2,228	2,198	1,481	1,460	1,456	1,463	1,146	1,141	1,884	1,702	1,637	1,615
<b>Vested Terminations (vested at time of termination, not refunded contributions or commenced benefit)</b>																
(1) Number	58	59	0	0	11	10	9	8	8	8	56	52	0	0	142	137
(2) Average Age	51.0	51.1	0.0	0.0	44.5	44.2	51.5	52.3	51.8	49.9	49.3	49.5	0.0	0.0	49.9	50.0
(3) Average Monthly Pension Benefit	1,024	1,022	0	0	1,461	1,405	650	561	1,017	937	939	959	0	0	1,000	994
<b>Total Number of Members</b>	<b>682</b>	<b>681</b>	<b>55</b>	<b>54</b>	<b>276</b>	<b>265</b>	<b>155</b>	<b>176</b>	<b>162</b>	<b>163</b>	<b>212</b>	<b>219</b>	<b>32</b>	<b>30</b>	<b>1574</b>	<b>1588</b>

## Section 5.2 - Age and Service Distribution of Active Members as of December 31, 2014

### Total

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	1	0	0	0	0	0	0	0	1
	Total Salary	36667	0	0	0	0	0	0	0	36,667
	Average Salary	36667	0	0	0	0	0	0	0	36,667
20-24	Number	17	0	0	0	0	0	0	0	17
	Total Salary	565,552	0	0	0	0	0	0	0	565,552
	Average Salary	33,268	0	0	0	0	0	0	0	33,268
25-29	Number	30	8	0	0	0	0	0	0	38
	Total Salary	1,018,652	329,060	0	0	0	0	0	0	1,347,712
	Average Salary	33,955	41,133	0	0	0	0	0	0	35,466
30-34	Number	18	31	12	3	0	0	0	0	64
	Total Salary	715,021	1,435,800	767,242	118,603	0	0	0	0	3,036,666
	Average Salary	39,723	46,316	63,937	39,534	0	0	0	0	47,448
35-39	Number	12	16	45	16	2	0	0	0	91
	Total Salary	481,751	825,175	2,523,878	850,072	92,848	0	0	0	4,773,724
	Average Salary	40,146	51,573	56,086	53,130	46,424	0	0	0	52,459
40-44	Number	21	20	26	27	17	1	0	0	112
	Total Salary	766,784	946,179	1,358,802	1,650,476	985,263	41,811	0	0	5,749,315
	Average Salary	36,514	47,309	52,262	61,129	57,957	41,811	0	0	51,333
45-49	Number	19	12	23	14	35	22	2	0	127
	Total Salary	633,162	599,551	1,125,677	841,690	2,210,507	1,176,334	95,383	0	6,682,304
	Average Salary	33,324	49,963	48,942	60,121	63,157	53,470	47,692	0	52,617
50-54	Number	18	9	19	26	25	22	2	2	123
	Total Salary	634,199	347,666	895,286	1,280,431	1,309,385	1,225,100	207,575	130,446	6,030,088
	Average Salary	35,233	38,630	47,120	49,247	52,375	55,686	103,788	65,223	49,025
55-59	Number	10	20	22	8	18	6	6	2	92
	Total Salary	336,401	916,932	991,294	346,912	976,206	315,140	382,240	126,707	4,391,832
	Average Salary	33,640	45,847	45,059	43,364	54,234	52,523	63,707	63,354	47,737
60-64	Number	6	1	7	10	5	4	2	1	36
	Total Salary	173,674	34,611	370,924	465,773	312,935	230,969	86,826	87,669	1,763,381
	Average Salary	28,946	34,611	52,989	46,577	62,587	57,742	43,413	87,669	48,983
65-69	Number	4	3	0	2	0	1	0	0	10
	Total Salary	170,451	114,049	0	133,058	0	45,724	0	0	463,282
	Average Salary	42,613	38,016	0	66,529	0	45,724	0	0	46,328
70+	Number	0	2	0	0	0	0	0	0	2
	Total Salary	0	71,280	0	0	0	0	0	0	71,280
	Average Salary	0	35,640	0	0	0	0	0	0	35,640
TOTAL	Number	156	122	154	106	102	56	12	5	713
	Total Salary	5,532,314	5,620,303	8,033,103	5,687,015	5,887,143	3,035,077	772,024	344,822	34,911,801
	Average Salary	35,464	46,068	52,163	53,651	57,717	54,198	64,335	68,964	48,965

## Section 5.2 (cont'd)

### Age and Service Distribution of Active Members as of December 31, 2014

#### General County

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	5	0	0	0	0	0	0	0	5
	Total Salary	135,357	0	0	0	0	0	0	0	135,357
	Average Salary	27,071	0	0	0	0	0	0	0	27,071
25-29	Number	17	3	0	0	0	0	0	0	20
	Total Salary	544,215	94,866	0	0	0	0	0	0	639,081
	Average Salary	32,013	31,622	0	0	0	0	0	0	31,954
30-34	Number	5	11	1	3	0	0	0	0	20
	Total Salary	169,855	441,924	58,053	118,603	0	0	0	0	788,435
	Average Salary	33,971	40,175	58,053	39,534	0	0	0	0	39,422
35-39	Number	7	4	16	4	1	0	0	0	32
	Total Salary	293,411	184,557	857,865	185,393	41,621	0	0	0	1,562,847
	Average Salary	41,916	46,139	53,617	46,348	41,621	0	0	0	48,839
40-44	Number	12	9	7	4	6	1	0	0	39
	Total Salary	392,133	422,984	310,281	197,893	315,444	41,811	0	0	1,680,546
	Average Salary	32,678	46,998	44,326	49,473	52,574	41,811	0	0	43,091
45-49	Number	11	2	7	6	9	8	1	0	44
	Total Salary	365,481	64,848	332,584	314,255	535,340	317,229	37,480	0	1,967,217
	Average Salary	33,226	32,424	47,512	52,376	59,482	39,654	37,480	0	44,709
50-54	Number	6	5	7	13	11	7	1	0	50
	Total Salary	199,426	183,912	316,176	610,028	589,082	371,868	109,022	0	2,379,514
	Average Salary	33,238	36,782	45,168	46,925	53,553	53,124	109,022	0	47,590
55-59	Number	4	7	10	7	4	3	3	2	40
	Total Salary	141,349	229,312	388,935	261,912	209,531	168,906	192,273	126,707	1,718,925
	Average Salary	35,337	32,759	38,894	37,416	52,383	56,302	64,091	63,354	42,973
60-64	Number	2	0	6	6	2	2	2	1	21
	Total Salary	52,220	0	244,848	289,719	140,977	132,904	86,826	87,669	1,035,163
	Average Salary	26,110	0	40,808	48,287	70,489	66,452	43,413	87,669	49,293
65-69	Number	2	1	0	2	0	1	0	0	6
	Total Salary	108,451	25,304	0	133,058	0	45,724	0	0	312,537
	Average Salary	54,226	25,304	0	66,529	0	45,724	0	0	52,090
70+	Number	0	1	0	0	0	0	0	0	1
	Total Salary	0	14,110	0	0	0	0	0	0	14,110
	Average Salary	0	14,110	0	0	0	0	0	0	14,110
TOTAL	Number	71	43	54	45	33	22	7	3	278
	Total Salary	2,401,899	1,661,816	2,508,742	2,110,860	1,831,995	1,078,440	425,600	214,376	12,233,728
	Average Salary	33,830	38,647	46,458	46,908	55,515	49,020	60,800	71,459	44,006

## Section 5.2 (cont'd)

### Age and Service Distribution of Active Members as of December 31, 2014

#### County Agency

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	1	0	0	0	0	0	0	0	1
	Total Salary	38,613	0	0	0	0	0	0	0	38,613
	Average Salary	38,613	0	0	0	0	0	0	0	38,613
25-29	Number	1	2	0	0	0	0	0	0	3
	Total Salary	47,443	97,846	0	0	0	0	0	0	145,289
	Average Salary	47,443	48,923	0	0	0	0	0	0	48,430
30-34	Number	0	1	0	0	0	0	0	0	1
	Total Salary	0	49,674	0	0	0	0	0	0	49,674
	Average Salary	0	49,674	0	0	0	0	0	0	49,674
35-39	Number	1	1	2	1	0	0	0	0	5
	Total Salary	24,773	51,658	103,991	43,038	0	0	0	0	223,460
	Average Salary	24,773	51,658	51,996	43,038	0	0	0	0	44,692
40-44	Number	1	1	1	0	0	0	0	0	3
	Total Salary	39,415	69,739	51,557	0	0	0	0	0	160,711
	Average Salary	39,415	69,739	51,557	0	0	0	0	0	53,570
45-49	Number	0	0	0	0	1	2	0	0	3
	Total Salary	0	0	0	0	48,490	106,065	0	0	154,555
	Average Salary	0	0	0	0	48,490	53,033	0	0	51,518
50-54	Number	0	0	2	1	2	2	0	0	7
	Total Salary	0	0	94,863	49,928	92,984	105,710	0	0	343,485
	Average Salary	0	0	47,432	49,928	46,492	52,855	0	0	49,069
55-59	Number	0	0	0	0	1	1	0	0	2
	Total Salary	0	0	0	0	48,028	43,060	0	0	91,088
	Average Salary	0	0	0	0	48,028	43,060	0	0	45,544
60-64	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
65-69	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
70+	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
TOTAL	Number	4	5	5	2	4	5	0	0	25
	Total Salary	150,243	268,918	250,411	92,966	189,503	254,835	0	0	1,206,876
	Average Salary	37,561	53,784	50,082	46,483	47,376	50,967	0	0	48,275

## Section 5.2 (cont'd)

### Age and Service Distribution of Active Members as of December 31, 2014

#### Sheriff's Office

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	1	0	0	0	0	0	0	0	1
	Total Salary	36,667	-	-	-	-	-	-	-	36,667
	Average Salary	36,667	-	-	-	-	-	-	-	36,667
20-24	Number	7	0	0	0	0	0	0	0	7
	Total Salary	289,861	0	0	0	0	0	0	0	289,861
	Average Salary	41,409	0	0	0	0	0	0	0	41,409
25-29	Number	4	0	0	0	0	0	0	0	4
	Total Salary	163,459	0	0	0	0	0	0	0	163,459
	Average Salary	40,865	0	0	0	0	0	0	0	40,865
30-34	Number	6	6	9	0	0	0	0	0	21
	Total Salary	258,513	374,981	598,449	0	0	0	0	0	1,231,943
	Average Salary	43,086	62,497	66,494	0	0	0	0	0	58,664
35-39	Number	3	3	17	7	1	0	0	0	31
	Total Salary	132,391	180,886	1,062,344	457,402	51,227	0	0	0	1,884,250
	Average Salary	44,130	60,295	62,491	65,343	51,227	0	0	0	60,782
40-44	Number	4	2	5	16	7	0	0	0	34
	Total Salary	167,081	120,622	323,382	1,013,799	424,932	0	0	0	2,049,816
	Average Salary	41,770	60,311	64,676	63,362	60,705	0	0	0	60,289
45-49	Number	0	0	5	4	13	5	0	0	27
	Total Salary	0	0	299,564	273,981	972,464	368,904	0	0	1,914,913
	Average Salary	0	0	59,913	68,495	74,805	73,781	0	0	70,923
50-54	Number	0	0	2	3	4	3	0	0	12
	Total Salary	0	0	97,116	158,972	201,599	201,832	0	0	659,519
	Average Salary	0	0	48,558	52,991	50,400	67,277	0	0	54,960
55-59	Number	0	0	1	0	4	0	0	0	5
	Total Salary	0	0	57,448	0	245,839	0	0	0	303,287
	Average Salary	0	0	57,448	0	61,460	0	0	0	60,657
60-64	Number	0	0	0	0	1	0	0	0	1
	Total Salary	0	0	0	0	65,893	0	0	0	65,893
	Average Salary	0	0	0	0	65,893	0	0	0	65,893
65-69	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
70+	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
TOTAL	Number	25	11	39	30	30	8	0	0	143
	Total Salary	1,047,972	676,489	2,438,304	1,904,153	1,961,954	570,736	0	0	8,599,608
	Average Salary	41,919	61,499	62,521	63,472	65,398	71,342	0	0	60,137

## Section 5.2 (cont'd)

### Age and Service Distribution of Active Members as of December 31, 2014

#### County Library

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	4	0	0	0	0	0	0	0	4
	Total Salary	101,720	0	0	0	0	0	0	0	101,720
	Average Salary	25,430	0	0	0	0	0	0	0	25,430
25-29	Number	4	1	0	0	0	0	0	0	5
	Total Salary	111,963	40,662	0	0	0	0	0	0	152,625
	Average Salary	27,991	40,662	0	0	0	0	0	0	30,525
30-34	Number	4	7	0	0	0	0	0	0	11
	Total Salary	148,526	294,170	0	0	0	0	0	0	442,696
	Average Salary	37,132	42,024	0	0	0	0	0	0	40,245
35-39	Number	1	0	2	0	0	0	0	0	3
	Total Salary	31,176	0	98,376	0	0	0	0	0	129,552
	Average Salary	31,176	0	49,188	0	0	0	0	0	43,184
40-44	Number	2	4	0	1	0	0	0	0	7
	Total Salary	75,130	152,336	0	72,078	0	0	0	0	299,544
	Average Salary	37,565	38,084	0	72,078	0	0	0	0	42,792
45-49	Number	4	3	4	1	2	0	0	0	14
	Total Salary	122,333	94,910	146,315	56,269	101,179	0	0	0	521,006
	Average Salary	30,583	31,637	36,579	56,269	50,590	0	0	0	37,215
50-54	Number	8	3	1	0	1	3	1	2	19
	Total Salary	243,867	95,014	34,592	0	35,826	143,902	98,553	130,446	782,200
	Average Salary	30,483	31,671	34,592	0	35,826	47,967	98,553	65,223	41,168
55-59	Number	5	8	5	0	1	1	2	0	22
	Total Salary	151,053	273,553	233,169	0	56,919	43,857	119,717	0	878,268
	Average Salary	30,211	34,194	46,634	0	56,919	43,857	59,859	0	39,921
60-64	Number	4	1	0	2	2	1	0	0	10
	Total Salary	121,454	34,611	0	94,441	106,065	35,899	0	0	392,470
	Average Salary	30,364	34,611	0	47,221	53,033	35,899	0	0	39,247
65-69	Number	2	1	0	0	0	0	0	0	3
	Total Salary	62,000	36,733	0	0	0	0	0	0	98,733
	Average Salary	31,000	36,733	0	0	0	0	0	0	32,911
70+	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
TOTAL	Number	38	28	12	4	6	5	3	2	98
	Total Salary	1,169,222	1,021,989	512,452	222,787	299,989	223,657	218,271	130,446	3,798,813
	Average Salary	30,769	36,500	42,704	55,697	49,998	44,731	72,757	65,223	38,763

## Section 5.2 (cont'd)

### Age and Service Distribution of Active Members as of December 31, 2014

#### Road Commission

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
25-29	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
30-34	Number	0	0	1	0	0	0	0	0	1
	Total Salary	0	0	53,361	0	0	0	0	0	53,361
	Average Salary	0	0	53,361	0	0	0	0	0	53,361
35-39	Number	0	0	5	1	0	0	0	0	6
	Total Salary	0	0	274,683	49,462	0	0	0	0	324,145
	Average Salary	0	0	54,937	49,462	0	0	0	0	54,024
40-44	Number	0	2	7	4	3	0	0	0	16
	Total Salary	0	79,690	389,643	241,070	179,960	0	0	0	890,363
	Average Salary	0	39,845	55,663	60,268	59,987	0	0	0	55,648
45-49	Number	1	1	2	2	6	5	1	0	18
	Total Salary	26,250	51,875	104,209	100,828	331,474	290,956	57,904	0	963,496
	Average Salary	26,250	51,875	52,105	50,414	55,246	58,191	57,904	0	53,528
50-54	Number	0	0	6	6	2	5	0	0	19
	Total Salary	0	0	302,877	340,552	102,111	283,162	0	0	1,028,702
	Average Salary	0	0	50,480	56,759	51,056	56,632	0	0	54,142
55-59	Number	0	1	5	1	4	1	1	0	13
	Total Salary	0	38,050	265,124	85,001	233,910	59,317	70,250	0	751,652
	Average Salary	0	38,050	53,025	85,001	58,478	59,317	70,250	0	57,819
60-64	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
65-69	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
70+	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
TOTAL	Number	1	4	26	14	15	11	2	0	73
	Total Salary	26,250	169,615	1,389,897	816,912	847,456	633,435	128,153	0	4,011,718
	Average Salary	26,250	42,404	53,458	58,351	56,497	57,585	64,077	0	54,955

## Section 5.2 (cont'd)

### Age and Service Distribution of Active Members as of December 31, 2014

#### Mental Health

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
25-29	Number	2	0	0	0	0	0	0	0	2
	Total Salary	75,557	0	0	0	0	0	0	0	75,557
	Average Salary	37,779	0	0	0	0	0	0	0	37,779
30-34	Number	2	4	0	0	0	0	0	0	6
	Total Salary	99,058	177,550	0	0	0	0	0	0	276,608
	Average Salary	49,529	44,388	0	0	0	0	0	0	46,101
35-39	Number	0	7	3	2	0	0	0	0	12
	Total Salary	0	351,721	126,618	64,498	0	0	0	0	542,837
	Average Salary	0	50,246	42,206	32,249	0	0	0	0	45,236
40-44	Number	2	0	4	1	1	0	0	0	8
	Total Salary	93,025	0	169,180	67,406	64,926	0	0	0	394,537
	Average Salary	46,513	0	42,295	67,406	64,926	0	0	0	49,317
45-49	Number	1	6	4	1	3	2	0	0	17
	Total Salary	46,365	387,918	191,888	96,358	168,249	93,179	0	0	983,957
	Average Salary	46,365	64,653	47,972	96,358	56,083	46,590	0	0	57,880
50-54	Number	3	1	1	2	5	2	0	0	14
	Total Salary	152,358	68,740	49,662	70,747	287,783	118,628	0	0	747,918
	Average Salary	50,786	68,740	49,662	35,374	57,557	59,314	0	0	53,423
55-59	Number	1	4	1	0	4	0	0	0	10
	Total Salary	44,000	376,018	46,617	0	181,978	0	0	0	648,613
	Average Salary	44,000	94,005	46,617	0	45,495	0	0	0	64,861
60-64	Number	0	0	1	2	0	1	0	0	4
	Total Salary	0	0	126,077	81,613	0	62,167	0	0	269,857
	Average Salary	0	0	126,077	40,807	0	62,167	0	0	67,464
65-69	Number	0	1	0	0	0	0	0	0	1
	Total Salary	0	52,012	0	0	0	0	0	0	52,012
	Average Salary	0	52,012	0	0	0	0	0	0	52,012
70+	Number	0	1	0	0	0	0	0	0	1
	Total Salary	0	57,170	0	0	0	0	0	0	57,170
	Average Salary	0	57,170	0	0	0	0	0	0	57,170
TOTAL	Number	11	24	14	8	13	5	0	0	75
	Total Salary	510,362	1,471,128	710,041	380,623	702,936	273,973	0	0	4,049,063
	Average Salary	46,397	61,297	50,717	47,578	54,072	54,795	0	0	53,988

## Section 5.2 (cont'd)

### Age and Service Distribution of Active Members as of December 31, 2014

#### Central Dispatch

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
20-24	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
25-29	Number	2	2	0	0	0	0	0	0	4
	Total Salary	76,016	95,685	0	0	0	0	0	0	171,701
	Average Salary	38,008	47,843	0	0	0	0	0	0	42,925
30-34	Number	1	2	1	0	0	0	0	0	4
	Total Salary	39,069	97,502	57,380	0	0	0	0	0	193,951
	Average Salary	39,069	48,751	57,380	0	0	0	0	0	48,488
35-39	Number	0	1	0	1	0	0	0	0	2
	Total Salary	0	56,353	0	50,279	0	0	0	0	106,632
	Average Salary	0	56,353	0	50,279	0	0	0	0	53,316
40-44	Number	0	2	2	1	0	0	0	0	5
	Total Salary	0	100,809	114,759	58,231	0	0	0	0	273,799
	Average Salary	0	50,405	57,380	58,231	0	0	0	0	54,760
45-49	Number	2	0	1	0	1	0	0	0	4
	Total Salary	72,733	0	51,117	0	53,311	0	0	0	177,161
	Average Salary	36,367	0	51,117	0	53,311	0	0	0	44,290
50-54	Number	1	0	0	1	0	0	0	0	2
	Total Salary	38,547	0	0	50,203	0	0	0	0	88,750
	Average Salary	38,547	0	0	50,203	0	0	0	0	44,375
55-59	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
60-64	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
65-69	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
70+	Number	0	0	0	0	0	0	0	0	0
	Total Salary	0	0	0	0	0	0	0	0	0
	Average Salary	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	Number	6	7	4	3	1	0	0	0	21
	Total Salary	226,365	350,348	223,256	158,713	53,311	0	0	0	1,011,993
	Average Salary	37,728	50,050	55,814	52,904	53,311	0	0	0	48,190

## Section 5.3 - Member Data Reconciliation

	Active Members	Inactive Members			Beneficiaries	Total
		With Deferred Benefits	Retired Members	Disabled Members		
<b>As of 12/31/2013</b>	<b>751</b>	<b>137</b>	<b>631</b>	<b>58</b>	<b>11</b>	<b>1588</b>
Age/Service Retirements	(16)	(9)	25			0
Disability Retirements	(4)			4		0
Deaths Without Beneficiary			(12)	(2)		(14)
Deaths With Beneficiary						0
Non-vested Terminations	(29)					(29)
Vested Terminations	(15)	15				0
Rehires	1	(1)				0
Cash-outs	(7)					(7)
Expiration of Benefits						0
Data Corrections			3	1		4
Transfers Out						0
Laid Off	(1)					
Pick Ups						0
<b>Net Change</b>	<b>(71)</b>	<b>5</b>	<b>16</b>	<b>3</b>	<b>0</b>	<b>(47)</b>
New Entrants During the Year	33	0	0	0	0	33
<b>As of 12/31/2014</b>	<b>713</b>	<b>142</b>	<b>647</b>	<b>61</b>	<b>11</b>	<b>1574</b>



## Section 5.4 - Schedule of Active Member Data

Valuation Date	Number								Annual Earnings	Annual Average Earnings	Percent Increase/ (Decrease) in Average Earnings
	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Total			
December 31, 2008	392	34	179	110	90	132	18	955	43,961,798	46,033	2.5%
December 31, 2009	339	34	172	119	91	137	20	912	42,893,801	47,033	2.2%
December 31, 2010	297	25	141	123	85	129	18	818	38,418,135	46,966	-1.0%
December 31, 2011	298	25	141	116	83	131	19	813	38,891,988	47,838	1.9%
December 31, 2013	287	24	136	122	72	89	21	751	36,065,439	48,023	-1.5%
December 31, 2014	278	25	143	98	73	75	21	713	34,911,801	48,965	2.0%



## Section 5.5 - Schedule of Inactive Member Data

Valuation Date								Number	Annual Benefit Payments	Average Annual Benefit Payments
	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch			
December 31, 2008								142	1,458,854	10,274
December 31, 2009								136	1,410,694	10,373
December 31, 2010								138	1,453,761	10,535
December 31, 2011								125	1,355,821	10,847
December 31, 2012								135	1,521,470	11,270
December 31, 2013	59	0	10	8	8	52	0	137	1,634,172	11,928
December 31, 2014	58	0	11	9	8	56	0	142	1,704,282	12,002



## Section 5.6 - Schedule of Retired Members by Type of Benefit and Option Elected

Amount of Monthly Pension Benefit		Number of Recipients	Type of Pension Benefit			Option Selected					
			1	2	3	1	3	4	5	6	
\$	1 - \$	300	33	31	0	2	14	2	8	0	9
	301 -	600	84	72	1	11	53	4	7	7	13
	601 -	900	89	75	3	11	51	3	10	11	14
	901 -	1,200	91	72	3	16	47	3	20	12	9
	1,201 -	1,500	75	65	2	8	41	5	8	10	11
	1,501 -	1,800	70	67	1	2	34	3	12	17	4
	1,801 -	2,100	73	65	1	7	37	2	11	21	2
	2,101 -	2,400	54	53	0	1	22	5	9	15	3
	2,401 -	2,700	42	40	0	2	20	2	4	15	1
	2,701 -	3,000	29	29	0	0	12	3	5	8	1
	3,001 -	3,300	15	15	0	0	7	0	2	6	0
	3,301 -	3,600	21	20	0	1	6	1	2	12	0
	3,601 -	3,900	13	13	0	0	6	1	0	6	0
	3,901 -	4,200	16	16	0	0	7	0	3	6	0
	Over \$4,200		14	14	0	0	8	0	2	4	0
Totals			719	647	11	61	365	34	103	150	67

### Type of Pension Benefit

1. Regular retirement
2. Survivor payment
3. Disability

### Option Elected

- 1 = Straight Life
- 3 = Years Certain
- 4 = Joint and 100% Survivor
- 5 = Joint and 50% Survivor
- 6 = Survivor of a Retirant

## Section 5.7 - Schedule of Retired Members and Beneficiaries

As of December 31	2014	2013
<b>Age and Service</b>		
(1) Number, Fiscal Year Start	631	605
(2) Net Change	16	26
(3) Number, Fiscal Year End	647	631
(4) Average Current Age	68.7	
(5) Average Monthly Pension Benefit	1,694	1,671
<b>Surviving Spouse's Benefits</b>		
(1) Number, Fiscal Year Start	11	12
(2) Net Change	0	-1
(3) Number, Fiscal Year End	11	11
(4) Average Current Age	66.3	
(5) Average Monthly Pension Benefit	1,120	1,120
<b>Disabilities</b>		
(1) Number, Fiscal Year Start	58	56
(2) Net Change	3	2
(3) Number, Fiscal Year End	61	58
(4) Average Current Age	61.2	
(5) Average Monthly Pension Benefit	1,126	1,109
<b>Total</b>		
(1) Number, Fiscal Year Start	700	673
(2) Net Change	19	27
(3) Number, Fiscal Year End	719	700
(4) Average Current Age	68	
(5) Average Monthly Pension Benefit	1,637	1,615



## Section 5.8 - Retirees Added to and Removed from Rolls

Year Ended	Added to Rolls		Removed from Rolls		Rolls – End of Year		Percent Increase in Annual Pension Allowances	Average Annual Pension Allowance
	No.	Annual Pension Allowances	No.	Annual Pension Allowances	No.	Annual Pension Allowances		
December 31, 2005	64	1,196,093	12	161,273	434	6,232,617	19.9%	14,361
December 31, 2006	41	897,712	11	103,828	464	7,026,501	12.7%	15,143
December 31, 2007	51	772,282	18	147,009	497	7,651,774	8.9%	15,396
December 31, 2008	20	390,306	12	122,465	505	7,919,615	3.5%	15,682
December 31, 2009	76	1,691,456	25	289,107	556	9,321,964	17.7%	16,766
December 31, 2010	106	2,903,205	17	150,288	645	12,074,881	29.5%	18,721
December 31, 2011	40	828,299	19	279,510	666	12,623,670	4.5%	18,954
December 31, 2012	38	593,734	31	358,826	673	12,858,578	1.9%	19,106
December 31, 2013	44	919,563	17	209,449	700	13,468,692	5.5%	19,241
December 31, 2014	33	718,532	14	66,374	719	14,120,850	4.8%	19,640

## Section 5.9 - Schedule of Benefit Payments

Attained Ages	Regular retirement & Survivor payment		Disability		Total	
	Annual		Annual		Annual	
	No.	Allowances	No.	Allowances	No.	Allowances
30-34	0	0	0	0	0	0
35-39	1	7,196	0	0	1	7,196
40-44	0	0	0	0	0	0
45-49	0	0	6	101,000	6	101,000
50-54	25	940,861	13	240,601	38	1,181,462
55-59	62	1,957,531	10	144,400	72	2,101,931
60-64	166	3,579,446	10	151,200	176	3,730,646
65-69	161	3,319,490	11	112,433	172	3,431,923
70-74	94	1,535,119	4	26,994	98	1,562,114
75	15	295,486	4	33,101	19	328,587
76	12	188,639	1	7,845	13	196,485
77	15	251,016	0	0	15	251,016
78	14	103,220	1	3,682	15	106,902
79	6	77,496	0	0	6	77,496
80	13	159,908	1	2,779	14	162,687
81	4	51,837	0	0	4	51,837
82	13	176,327	0	0	13	176,327
83	9	164,001	0	0	9	164,001
84	9	130,038	0	0	9	130,038
85	3	55,008	0	0	3	55,008
86	10	122,022	0	0	10	122,022
87	4	15,087	0	0	4	15,087
88	4	43,132	0	0	4	43,132
89	6	29,862	0	0	6	29,862
90	2	8,213	0	0	2	8,213
91	2	28,748	0	0	2	28,748
92	1	5,702	0	0	1	5,702
93	4	28,858	0	0	4	28,858
94	2	10,728	0	0	2	10,728
95	0	0	0	0	0	0
96	1	11,842	0	0	1	11,842
97	0	0	0	0	0	0
98	0	0	0	0	0	0
99	0	0	0	0	0	0
100	0	0	0	0	0	0
101	0	0	0	0	0	0
102	0	0	0	0	0	0
103	0	0	0	0	0	0
<b>Total</b>	<b>658</b>	<b>13,296,814</b>	<b>61</b>	<b>824,036</b>	<b>719</b>	<b>14,120,850</b>

**Section 5.9 (cont'd)**  
**Schedule of Benefit Payments**

<b>Inactive Members</b>		
Attained Ages	No.	Estimated Annual Allowances
30	0	0
31	0	0
32	1	8469.84
33	0	0
34	1	10917.47
35	2	19732.56
36	2	16856.64
37	1	7929
38	3	28841.88
39	3	43304.51
40	2	44557.79
41	3	27361.84
42	6	56386.46
43	6	76945.08
44	4	35788.91
45	5	74500.6
46	1	13338.28
47	6	58976.64
48	5	48607.35
49	5	40455.24
50	7	43873.56
51	7	83600.16
52	7	107011.44
53	10	108597.06
54	10	100581.33
55	5	86214.6
56	6	71978.28
57	6	73350.48
58	6	83055.29
59	13	234784.59
60	6	81314.76
61	2	6672.24
62	0	0
63	1	10278.48
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
68	0	0
<b>Total</b>	<b>142</b>	<b>1,704,282</b>

## **Section 6: Basis of the Actuarial Valuation**

## Section 6.1 – Brief Summary of Benefit Provisions

Eligibility	Amount
<b>REGULAR RETIREMENT</b>	
<b>General, Library, Road Commission, Mental Health, Sheriff's Office and Central Dispatch.</b>	<p>See Section 6.2 for details.</p> <p>Highest 3 consecutive years out of last 10 for all groups.</p> <p>Maximum Benefit: 75% of final average earnings.</p>
<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.

## Section 6.1 – Brief Summary of Benefit Provisions

Eligibility	Amount
<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.
	The System may from year to year pay a “13th check”. The 13th check will be based upon investment earnings that are in excess of the assumed level on assets to cover retiree liabilities. Only Road Commission has this provision within the pension fund beginning in 2012.
<b>MEMBER CONTRIBUTIONS</b>	
Please see Section 6.2 for summary description. See Plan document for details.	

## Section 6.2 - Summary of Plan Provisions by Division

### Monroe County Employees Retirement System Summary of Plan Provisions by Division

Valuation Group	Union Name	Numeric Code	Tier 1				Tier 2				
			Benefit Multiplier	FAC	EE Contribution	Normal Retirement Eligibility	Effective Date	Benefit Multiplier	FAC	EE Contribution	Normal Retirement Eligibility
General	Non-Union Other	0	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	Michigan Nurses Association	3	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	TPOAM General	4	2.50%	3 yr.	3.00%	55/30 or 60/8	10/26/2010	1.50%	3 yr.	3.00%	60/8
General	UAW/Friend of the Court	6	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	TPOAM District Court	26	2.50%	3 yr.	3.00%	55/30 or 60/8	10/26/2010	1.50%	3 yr.	3.00%	60/8
General	POAM/District Court Unit I	7	2.50%	3 yr.	1.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	POAM/District Court Unit II	27	2.50%	3 yr.	1.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	TPOAM Youth Center	8	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	UAW/Youth Center	28	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	United Steelworkers/Youth Center	29	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	UAW/Probate Court	11	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	POAM/Assistant Prosecutor's	14	2.50%	3 yr.	3.00%	55/30 or 60/8	4/3/2012	1.50%	3 yr.	3.00%	60/8
General	Non-Union Management	20	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	Elected Officials - Non-Union	22	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	County (Non-Union) Part-time	25	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
Sheriff	POAM/Sheriff Deputies	1	2.50%	3 yr.	3.00%	50/25 or 60/8	7/1/2013	1.50%	3 yr.	3.00%	50/25 or 60/8
Sheriff	POLC/Command Officers	9	2.75%	3 yr.	4.53%	50/25 or 60/8	4/25/2013	Retirement Benefits provided in previous position (Deputies Unit)			
Sheriff	POAM/Correctional Officers Unit I	10	2.50%	3 yr.	3.00%	50/25 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	50/25 or 60/8
Sheriff	POAM/Correctional Officers Unit II	17	2.50%	3 yr.	3.00%	50/25 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	50/25 or 60/8
Sheriff	Non-Union Command	30	2.75%	3 yr.	4.53%	50/25 or 60/8	4/25/2013	Retirement Benefits provided in previous position (Deputies Unit)			

Valuation Group	Union Name	Numeric Code	Tier 1				Tier 2				
			Benefit Multiplier	FAC	EE Contribution	Normal Retirement Eligibility	Effective Date	Benefit Multiplier	FAC	EE Contribution	Normal Retirement Eligibility
Dispatchers	POLC/Communication Officers	50	2.50%	3 yr.	3.00%	50/25 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
Dispatchers	POLC/Communication Supervisors	16	2.50%	3 yr.	3% to \$7,800 plus 5% over	50/25 or 60/8	1/1/2011	1.50%	3 yr.	3% to \$7,800 plus 5% over	60/8
Dispatchers	POLC/Communication Spec	12	2.50%	3 yr.	3.00%	50/25 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
Mental Health	AFSCME Mental Health	5	2.25%	3 yr.	0.00%	55/30 or 60/8	6/1/2012	None			
Mental Health	Non-Union Mental Health	23	2.25%	3 yr.	0.00%	55/30 or 60/8	6/1/2012	None			
Mental Health	Mental Health Management	24	2.25%	3 yr.	0.00%	55/30 or 60/8	6/1/2012	None			
Road Commission	Local 543 Utility Workers Union of America	44	2.25%	3 yr.	3.25%	55/30 or 60/8					
Road Commission	AFSCME Local 839, Unit I	45	2.25%	3 yr.	3.25%	55/30 or 60/8					
Road Commission	Road Commission - Management	46	2.25%	3 yr.	3.10%	55/30 or 60/8					
Road Commission	Road Non-Union Part Time	48	2.00%	5 yr.	3.10%	60/8					
Library	Library (Non-Union)	73	2.00%	3 yr.	0.00%	55/30 or 60/8					
Library	Library (Non-Union) Part-Time	74	2.00%	3 yr.	0.00%	55/30 or 60/8					
County Agency	Utility Workers of America/County Agency	2	2.50%	3 yr.	0.00%	55/30 or 60/8					
County Agency	Non-Union/County Agency	15	2.50%	3 yr.	0.00%	55/30 or 60/8					

### Section 6.3 - Summary of the 13<sup>th</sup> Check Provisions by Division

Division	General County	County Agency	Sheriff's Office	County Library	Road Commission *	Mental Health	Central Dispatch
Source of the 13th check payments	Employer	Employer	Employer	Employees Retirement System	Employer & 13th check Excess Reserve fund	N/A	Employer
13th check Excess Reserve fund	Closed	Closed	Closed	N/A	Open	N/A	Closed
Amount of payout for 2014	\$33,125	\$5,625	\$10,625	\$27,979	\$73,891	N/A	\$625

\*Road Commission's 13th Check Excess Reserve Fund summarized in Section 2.4

## Section 6.4 - Description of Actuarial Methods and Valuation Procedures

**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, 2014 valuation the corridor is 20%.

**Financing of Unfunded Actuarial Accrued Liabilities.** Unfunded actuarial accrued liabilities were amortized by a level (principal & interest combined) percent-of-payroll (level dollar for Mental Health Division). For the December 31, 2014 valuation, the period is 25 years. This period will decrease by one year at each subsequent valuation date. Future unanticipated unfunded actuarial accrued liability will be amortized over a 25 year period from the point incurred, resulting in a schedule of UAAL payments.

### **Actuarial Assumptions Used for the Valuation**

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

7% rate of return for Funding (inflation assumption of 3% is first used for the December 31, 2014 valuation).

This rate of return 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, 2014 valuation.

**Salary Increases.** These assumptions are used to project current pay to those upon which benefits will be based. These assumptions were first used for the December 31, 2014 valuation.

Annual Rate of Salary Increases by Member's Years of Service							
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	3.00%	2.50%	2.00%	2.00%	5.50%
2	3.00%	2.50%	2.00%	2.00%	5.50%	5.00%	5.00%
3	3.00%	2.50%	2.00%	2.00%	5.50%	5.00%	5.00%
4	3.00%	2.50%	2.00%	2.00%	5.50%	5.00%	5.00%
5	3.00%	2.50%	1.50%	2.00%	5.50%	4.50%	5.00%
6	3.00%	2.50%	1.50%	2.00%	5.50%	4.50%	5.00%
7	3.00%	2.50%	1.50%	1.50%	5.50%	4.50%	4.50%
8	3.00%	2.50%	1.50%	1.50%	5.50%	4.50%	4.50%
9+	3.00%	0.50%	0.50%	0.50%	3.50%	3.50%	3.50%

**Mortality.** The Fully Generational RP-2014 Blue Collar Mortality Table for males and females, using Projection Scale MP-2014.

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 Fully Generational RP-2014 Disabled Retiree Mortality Table for males and females, using Projection Scale MP-2014 was used.

It is assumed that all deaths are non-duty related deaths. These assumptions were first used for the December 31, 2014 valuation.

**Rates of Retirement.** These assumptions are used to measure the probabilities of an eligible member retiring during the year. These assumptions were first used for the December 31, 2014 valuation.

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		23.50%	
51		23.50%	
52		23.50%	
53		31.25%	
54		31.25%	
55	37.50%	31.25%	12.50%
56	12.50%	31.25%	12.50%
57	12.50%	15.63%	25.00%
58	12.50%	7.88%	25.00%
59	12.50%	7.88%	25.00%
60	20.00%	7.88%	50.00%
61	20.00%	7.88%	50.00%
62	20.00%	7.88%	50.00%
63	25.00%	7.88%	50.00%
64	25.00%	7.88%	50.00%
65	25.00%	100.00%	100.00%
66	30.00%		
67	30.00%		
68	30.00%		
69	30.00%		
70	100.00%		

**Administrative Expenses.** 0.5% of payroll.

**Active Member Group Size.** The number of active members was assumed to remain constant, except Mental Health which is closed to new hires.

**Rates of separation from active membership.** (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 assumptions were first used for the December 31, 2014 valuation.

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

Member Ages	Percent of Active Members Separating During the Year			
	Years of Service	General County, County Agency, Mental Health and County Library	Sheriff's Office & Central Dispatch	Road Commission
ALL	0	2.00%	22.50%	15.00%
	1	13.00%	13.50%	12.00%
	2	12.00%	10.50%	10.50%
	3	10.00%	10.50%	9.00%
	4	8.00%	10.50%	9.00%
25	5 & Over	6.12%	3.00%	6.00%
30		6.12%	3.00%	3.00%
35		5.44%	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. These assumptions were first used for the December 31, 2014 valuation. Sample disability rates are as follows:

Member Ages	Number of Disabilities	
	Men	Women
20	0.1170%	0.1020%
25	0.1170%	0.1020%
30	0.1170%	0.1020%
35	0.1170%	0.1020%
40	0.3015%	0.3560%
45	0.3975%	0.4050%
50	0.7380%	0.5670%
55	1.3395%	0.7660%
60	2.1210%	1.0170%

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 using the age nearest birthday and the service nearest whole year on the anniversary of the valuation date.
<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>Normal Form of Benefit:</b>	The assumed normal form of benefit is straight life form.
<b>Loads:</b>	None.

## Glossary

Actuarial Accrued Liability	Total accumulated cost to fund pension benefits arising from service in all prior years.
Actuarial Cost Method	Technique used to assign or allocate, in a systematic and consistent manner, the expected cost of a pension plan for a group of plan members to the years of service that give rise to that cost.
Actuarial Present Value of Future Benefits	Amount which, together with future interest, is expected to be sufficient to pay all future benefits.
Actuarial Valuation	Study of probable amounts of future pension benefits and the necessary amount of contributions to fund those benefits.
Actuary	Person who performs mathematical calculations pertaining to pension and insurance benefits based on specific procedures and assumptions.
GASB 67	Governmental Accounting Standards Board Statement Number 67.
Maturity Ratio	The ratio of the actuarial accrued liability for members who are no longer active to the total actuarial accrued liability. A ratio of over 50% indicates a mature plan. The higher the maturity ratio, the more volatile the contribution rate will be from year to year given actuarial gains and losses.
Normal Cost	That portion of the actuarial present value of benefits assigned to a particular year in respect to an individual participant or the plan as a whole.
Unfunded Actuarial Accrued Liability (UAAL)	The portion of the actuarial accrued liability not offset by plan assets.