

BUCK



Monroe County Employees Retirement System

Actuarial Valuation Report

Plan Year as of December 31, 2017

August 2018

August 22, 2018

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, 2017 performed by Buck Global, LLC (Buck).

The actuarial valuation is based on unaudited financial and member data provided by the staff of the Retirement System and summarized in this report. The benefits considered were provided by staff and summarized in this report. The actuary did not verify the data submitted but did perform tests for consistency and reasonableness. The accuracy of the results presented in this report is dependent upon the accuracy of the data.

All costs, liabilities and other factors under the Plan were determined in accordance with applicable Actuarial Standards of Practice. An actuarial cost method, which we believe is reasonable, is used to measure the actuarial liabilities. Buck is solely responsible for the actuarial calculations 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 make 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 cover the normal costs of active plan members, Plan expenses, and payoff of the unfunded actuarial accrued liability over a 25-year using layered amortization with 2% annual increases in installments.

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 applicable ordinances, this valuation was prepared on the basis of the interest, salary and demographic assumptions selected on the basis of an experience study covering the period January 1, 2010 to December 31, 2014, which was prepared by Buck, 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 based on an updated experience study, 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 Nos. 67 and 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 began performing annual actuarial valuations beginning with the December 31, 2014 valuation. Results prior to this date were reproduced from reports issued by the prior actuary and are included without audit or opinion.

Use of this report for purposes other than those for which it was prepared (which are set forth on Page 1 of this report) 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. Because of the risk of misinterpretation of actuarial results, Buck recommends requesting its advance review of any statement, document, or filing to be made on the basis of information contained in this report. Buck will accept no liability for any such statement, document or filing made without its prior review.

Where presented, the "funded ratio" and "unfunded accrued liability" are typically measured using the actuarial value of assets. It should be noted that making the same measurements using the market value of assets would result in different values of the funded ratios and unfunded accrued liabilities. Moreover, the funded ratio presented in this report is appropriate for evaluating the need and level of future contributions but makes no assessment regarding the funded status of the plan if the plan were to settle (i.e., purchase annuities to cover) a portion or all of its liabilities.

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. An analysis of the potential range of such future differences is beyond the scope of this report.

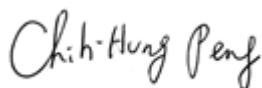
The undersigned are Enrolled Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards 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 Global, LLC



Troy Jaros, FSA, EA, MAAA, FCA
Senior Consultant, Retirement Actuary



Kevin (Chih Hung) Peng, ASA, EA, MAAA
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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 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, 2017.

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 and No. 68 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

Active Members:

As of December 31, 2017, there were 725 employees in active service covered under the provisions of the Plan. The age, service, and salary information for these employees is summarized below, along with comparative figures from the last actuarial valuation one year earlier.

	December 31, 2017	December 31, 2016
Number of active employees	725	713
Average age	45.6	45.7
Average years of service	13.2	13.5
Total annual salary	\$35,292,710	\$34,786,368
Average annual salary	48,680	48,789

The number of active members increased by 1.7% from the previous valuation date. The average age of the active members decreased by 0.1 years, and the average service decreased by 0.3 years. The total annual salary increased by 1.5%. The average annual salary decreased by 0.2% from the previous valuation. There were 660 active members who were also reported active in the December 31, 2016 actuarial valuation. The total salary for this group increased by 2.9%, which was lower than the 4.1% increase we expected for the group.

Summary of Results (continued)

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 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.

Inactive Members:

In addition to the active members, there were 143 inactive vested members who did not elect to receive their accumulated contributions when they left covered employment. The age and annual benefit information for these inactive members is summarized below with comparative figures from the last actuarial valuation one year earlier.

	December 31, 2017	December 31, 2016
Number of inactive members	143	151
Average age	49.8	49.6
Average annual benefit payments	\$12,787	\$13,052

The number of inactive vested members decreased by 5.3% from the previous valuation. The average age of the inactive vested members increased by 0.2 years. The average annual benefit for these members decreased by 2.0% 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 683 retired members and 85 beneficiaries who are receiving monthly benefit payments on the valuation date. The age and annual benefit information for these members is summarized below with comparative figures from the last actuarial valuation performed one year earlier.

	December 31, 2017	December 31, 2016
Number of members receiving payments		
➤ Retirees	683	670
➤ Beneficiaries*	85	82
➤ Total	768	752
Average age	69.0	69.0
Annual benefit amounts		
➤ Retirees	\$14,683,265	\$14,051,898
➤ Beneficiaries	\$1,020,358	\$927,028
➤ Total	\$15,703,623	\$14,978,926
Average annual benefit payments	\$20,447	\$19,919

Summary of Results (continued)

The number of retired members and beneficiaries increased by 2.1% from the previous valuation date. The average age of the retired members and beneficiaries did not change from the previous valuation date. The total annual benefit payments for these members increased by 4.8% 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 \$207.0 million as of December 31, 2017. This is an increase of \$18.0 million over the net assets available for benefits of \$189.0 million as of December 31, 2016. During the prior year, the fair value of assets experienced an investment rate of return of 13.31%.

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, 2017, the assets available for benefits on an actuarial value basis were \$207.2 million. This is an increase of \$4.5 million over the actuarial value of assets of \$202.7 million as of December 31, 2016. During the prior year, the actuarial value of assets experienced an actuarial rate of return of 5.63%.

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 \$5.8 million during the prior year. This total net loss is approximately 2.1% 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 loss of \$2.9 million during the year ending December 31, 2017. This loss increased the unfunded actuarial accrued liability by \$2.9 million and decreased the funded ratio by 0.8%.

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 Standard of Practice No. 27 and the demographic assumptions comply with Actuarial Standard of Practice No. 35.

Summary of Results (continued)

The Plan experienced a loss on an actuarial value of assets. The actual rate of return on the actuarial value of plan assets for the year ending December 31, 2017 was approximately 5.63% compared to the assumption of 7.00%, resulting in an asset loss of \$2.9 million. This loss increased the unfunded actuarial accrued liability by \$2.9 million and decreased the funded ratio by 1.0%.

The rate of return on the fair value of assets for the year ending December 31, 2017 was higher than the assumed rate of 7.00%. The actuarial value of the assets recognizes only 1/7th of the 2017 gain on fair value, delaying the recognition of the remaining 6/7^{ths} 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 7.00% 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.

Actuarial Contributions

The Board has adopted a Funding Policy that requires contributions to be sufficient to cover the normal cost and amortize the unfunded actuarial accrued liability over a 25-year layered amortization with 2% annual payment increases.

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 2018 has been determined to be \$3.5 million, or 10.1% 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 according to the policy outlined above, and the resulting installment is 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, 2017 is \$77.1 million. This represents an increase of \$5.3 million in the unfunded actuarial accrued liability from last year's amount of \$71.8 million.

The annual actuarially required employer contribution for 2019 is \$9.2 million, or 26.6% of pay. This represents an increase of \$0.7 million in the employer contribution amount of \$8.5 million for 2018, or an increase of 2.4% of pay from last year's employer contribution rate of 24.2%.

The actuarial liabilities and development of the annual actuarial employer contribution is shown in Sections 1.1 and 1.2. The contribution amounts shown in this report anticipate payment in the middle of the year. If the employer contribution pattern is significantly different, an adjustment to the costs may be appropriate. For example, a single contribution at the beginning of the year is available for investment throughout the year and, therefore, should be somewhat smaller than a mid-year payment. Similarly, a single contribution at the end of the year will not generate any investment income that year and so must be greater than a mid-year payment.

Summary of Results (continued)

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, 2017, the funded ratio of the Plan is 72.9%. This represents a decrease of 0.9% from last year's funded ratio of 73.8% as of December 31, 2016. 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.

A history of the unfunded actuarial accrued liability and the funded ratio is shown in Section 1.5.

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 Statements Nos. 67 and No. 68 can be found in Section 3.

Changes in Plan Provisions

There have been no changes in benefits or other plan provisions since the last actuarial valuation performed as of December 31, 2016.

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, 2016.

Comparative Summary of Key Actuarial Valuation Results

Comparative Summary of Key Actuarial Valuation Results

Actuarial Valuation as of
December 31, 2017 December 31, 2016

Summary of Member Data

Number of Members Included in the Valuation

▪ Active Members	725	713
▪ Inactive Members	143	151
▪ Retirees and beneficiaries	768	752
▪ Total	1,636	1,616

Annual Payroll

▪ Average (actual)	48,680	48,789
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Annual Benefit Payments

▪ Inactive Members(Average)	12,787	13,052
▪ Retirees and beneficiaries (Average)	20,447	19,919

Summary of Assets

Fair Value

▪ <i>Rate of Return</i>	13.31%	6.89%
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Actuarial Value

▪ <i>Rate of Return</i>	5.63%	5.02%
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Summary of Liabilities

Total Actuarial Accrued Liability	284,313,525	274,544,403
Actuarial Value of Assets	207,191,203	202,718,040
Unfunded Actuarial Accrued Liability	77,122,322	71,826,363
Funded Ratio	72.87%	73.84%
Maturity Ratio	62.56%	62.31%

Section 1: Actuarial Funding Results

Section 1.1 - Actuarial Liabilities and Normal Cost

Actuarial Liabilities based on December 31, 2017 Valuation	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Totals
1. Present Value of Projected Benefits								
Active Members								
Retirement Benefits	38,401,140	4,622,522	33,191,116	10,193,720	14,796,105	10,893,728	3,104,854	115,203,185
Withdrawal Benefits	4,595,237	617,362	1,636,888	1,063,184	1,041,193	1,480,416	202,924	10,637,204
Disability Benefits	4,009,375	628,912	2,611,690	854,913	1,589,391	1,215,905	322,923	11,233,109
Death Benefits	121,853	15,096	51,214	27,474	37,679	36,289	7,426	297,031
Total	47,127,605	5,883,892	37,490,908	12,139,291	17,464,368	13,626,338	3,638,127	137,370,529
2. Inactive Members with Deferred Benefits	4,755,980	191,684	1,011,364	142,917	1,160,565	4,399,821	17,785	11,680,116
3. Retired Members and Beneficiaries Receiving Benefits	71,617,905	7,754,470	44,306,325	11,228,164	13,108,143	15,240,505	2,932,598	166,188,110
4. Total Present Value of Projected Benefits (1. + 2. + 3.)	123,501,490	13,830,046	82,808,597	23,510,372	31,733,076	33,266,664	6,588,510	315,238,755
5. Present Value of Future Normal Costs	9,844,400	1,127,251	8,877,637	3,816,054	2,902,278	3,059,015	1,298,595	30,925,230
6. Total Actuarial Accrued Liability (4. - 5.)	113,657,090	12,702,795	73,930,960	19,694,318	28,830,798	30,207,649	5,289,915	284,313,525

Normal Cost as of December 31, 2017	General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	Totals
1. Total Normal Cost								
a. Retirement Benefits	883,436	80,071	829,368	438,728	319,373	271,666	100,045	2,922,687
b. Withdrawal Benefits	287,766	39,286	99,087	71,553	65,223	75,369	11,724	650,008
c. Disability Benefits	148,453	20,384	102,054	40,923	58,901	42,021	14,347	427,083
d. Death Benefits	3,466	391	1,663	1,107	1,074	1,020	291	9,012
e. Total Normal Cost	1,323,121	140,132	1,032,172	552,311	444,571	390,076	126,407	4,008,790
2. Administrative Expense	61,943	7,376	41,780	21,323	18,486	17,180	5,215	173,303

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	32,052,843	3,973,975	26,059,582	7,331,218	12,759,945	8,824,378	2,088,476	93,090,417
ii. Withdrawal Benefits	2,269,045	305,056	788,239	443,665	577,584	838,851	79,576	5,302,016
iii. Death Benefits	96,731	12,059	37,520	19,441	30,643	28,434	4,305	229,133
iv. Disability Benefits	2,864,586	465,551	1,727,930	528,913	1,193,918	875,660	167,175	7,823,733
v. Total	37,283,205	4,756,641	28,613,271	8,323,237	14,562,090	10,567,323	2,339,532	106,445,299
b. Inactive Members with Deferred Benefits	4,755,980	191,684	1,011,364	142,917	1,160,565	4,399,821	17,785	11,680,116
c. Retired Members and Beneficiaries Receiving Benefits	71,617,905	7,754,470	44,306,325	11,228,164	13,108,143	15,240,505	2,932,598	166,188,110
d. Total (1.a.v. + 1.b. + 1.c.)	113,657,090	12,702,795	73,930,960	19,694,318	28,830,798	30,207,649	5,289,915	284,313,525
2. Actuarial Value of Assets*	77,918,802	6,934,562	50,708,555	16,168,942	25,223,012	26,819,678	3,417,652	207,191,203
3. Unfunded Actuarial Accrued Liability (UAAL) (1.d - 2.)	35,738,288	5,768,233	23,222,405	3,525,376	3,607,786	3,387,971	1,872,263	77,122,322
4. Funded Ratio (2. / 1.d)	68.56%	54.59%	68.59%	82.10%	87.49%	88.78%	64.61%	72.87%
5. Maturity Ratio [(1.b + 1.c) / 1.d]	67.20%	62.55%	61.30%	57.74%	49.49%	65.02%	55.77%	62.56%
6. Valuation Payroll	12,388,656	1,475,245	8,355,998	4,264,523	3,697,198	3,436,084	1,043,044	34,660,748
7. Expected Member Contributions	371,660	38,061	267,392	0	119,789	0	31,291	828,193
8. Employer Contribution for fiscal 2019**								
Normal Cost with interest, net of Expected Member Contributions	1,058,147	114,186	841,464	592,311	358,302	420,447	104,606	3,489,463
UAAL Contribution with interest adjustment†	2,641,154	425,922	1,711,591	257,072	271,677	288,023	138,012	5,733,451
Employer Contribution	3,699,301	540,108	2,553,055	849,383	629,979	708,470	242,618	9,222,914
9. Employer Contribution Rate for fiscal 2019**								
Employer Normal Cost Rate	8.54%	7.74%	10.07%	13.89%	9.69%	12.24%	10.03%	10.07%
UAAL Contribution Rate	21.32%	28.87%	20.48%	6.03%	7.35%	8.38%	13.23%	16.54%
Total Employer Contribution Rate	29.86%	36.61%	30.55%	19.92%	17.04%	20.62%	23.26%	26.61%
10. Member Contribution Rate^	3.00%	2.58%	3.20%	0.00%	3.24%	0.00%	3.00%	2.39%

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

** It is assumed that all contributions will be made in the middle of the year.

† 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 a 25-year layered amortization with 2% annual payment increases.

^ Salary weight average

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	Totals
1. Expected Actuarial Accrued Liability								
a. Actuarial Accrued Liability at December 31, 2016	111,279	12,271	70,858	18,829	28,126	28,221	4,961	274,545
b. Normal Cost at December 31, 2016	1,270	127	1,039	444	457	394	121	3,852
c. Interest on a. + b. to End of Year	7,878	868	5,033	1,349	2,001	2,003	356	19,488
d. Benefit Payments and Refund of Contributions with Interest to end of year	7,251	738	4,189	1,051	1,546	1,431	308	16,514
e. Expected Actuarial Accrued Liability (a. + b. + c. - d.)	113,176	12,528	72,741	19,571	29,038	29,187	5,130	281,371
f. Increase/(decrease) in Actuarial Accrued Liability Due to Change in Actuarial Assumptions	0	0	0	0	0	0	0	0
g. Increase/(decrease) in Actuarial Accrued Liability Due to Change in Plan Provisions	0	0	0	0	0	0	0	0
2. Actuarial Accrued Liability at December 31, 2017	113,657	12,703	73,931	19,694	28,831	30,208	5,290	284,314
3. Liability (Gain) / Loss (2. - 1.e.)	481	175	1,190	123	(207)	1,021	160	2,943
4. Expected Actuarial Value of Assets								
a. Actuarial Value of Assets at December 31, 2016	76,918	6,816	49,426	15,699	24,448	26,150	3,262	202,718
b. Interest on a. to End of Year	5,384	477	3,460	1,099	1,711	1,831	228	14,190
c. Contributions Made	3,823	460	2,624	624	926	621	273	9,351
d. Interest on c. to End of Year	134	16	92	22	32	22	10	327
e. Benefit Payments and Refund of Contributions with Interest to end of year	7,251	738	4,189	1,051	1,546	1,431	308	16,514
f. Expected Actuarial Value of Assets at December 31, 2017 (a. + b. + c. + d. - e.)	79,008	7,031	51,413	16,393	25,571	27,193	3,465	210,072
5. Actuarial Value of Assets as of December 31, 2017*	77,919	6,935	50,708	16,169	25,223	26,820	3,418	207,192
6. Actuarial Asset (Gain) / Loss (4.g. - 5.)	<u>1,089</u>	<u>96</u>	<u>705</u>	<u>224</u>	<u>348</u>	<u>373</u>	<u>47</u>	<u>2,880</u>
7. Actuarial (Gain) / Loss (3. + 6.)	<u>1,570</u>	<u>271</u>	<u>1,895</u>	<u>347</u>	<u>141</u>	<u>1,394</u>	<u>207</u>	<u>5,823</u>

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

Section 1.4 - Actuarial Balance Sheet

Financial Resources		December 31, 2017
1. Actuarial Value of Assets*		207,191,203
2. Present Value of Future Contributions		
(a) Expected Member contributions		6,865,374
(b) Employer Normal Cost		24,059,856
(c) State Appropriations		0
(d) Total		30,925,230
3. Unfunded Actuarial Accrued Liability/(Reserve)		77,122,322
4. Total Assets [1 + 2(d) + 3]		315,238,755

Benefit Obligations		December 31, 2017
1. Present Value of Future Benefits		
(a) Active members		137,370,529
(b) Inactive members		11,680,116
(c) Retirees, disabilities and beneficiaries		166,188,110
(d) Total		315,238,755

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

Section 1.5 - History of UAAL and Funded Ratio

(\$'s in 000's)

Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Accrued Liability (UAAL)	Funded Ratio (AVA as a % of AAL)	Covered Payroll	UAAL as a Percentage of Covered Payroll
	(a)	(b)	(b-a)	(a/b)	(c)	(b-a)/(c)
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%
December 31, 2015	199,696	273,289	73,593	73.1%	35,914	204.9%
December 31, 2016 *	202,718	274,544	71,826	73.8%	34,786	206.5%
December 31, 2017	207,191	284,314	77,123	72.9%	34,661	222.5%

*The Retirement System provisions were amended.

Reflects a change in valuation assumptions.

Section 1.6 - Solvency Test

Valuation Date	Aggregate Accrued Liability For:			Valuation Assets	Portion of Accrued Liabilities Covered by Assets		
	(1) Active Member Contributions	(2) Inactive Members	(3) Active Members (Employer-Financed Portion)		(1)	(2)	(3)
December 31, 2009	7,170	107,910	96,253	188,779	100.00%	100.00%	76.57%
December 31, 2010	6,114	140,914	84,653	192,859	100.00%	100.00%	54.14%
December 31, 2011	6,191	145,172	89,523	192,014	100.00%	100.00%	45.41%
December 31, 2012	6,246	147,070	91,055	193,740	100.00%	100.00%	44.40%
December 31, 2013	7,393	153,870	93,917	195,509	100.00%	100.00%	36.46%
December 31, 2014	7,768	162,401	92,246	195,100	100.00%	100.00%	27.03%
December 31, 2015	8,012	168,911	96,366	199,696	100.00%	100.00%	23.63%
December 31, 2016	8,306	171,071	95,167	202,718	100.00%	100.00%	24.53%
December 31, 2017	8,724	177,868	97,722	207,191	100.00%	100.00%	21.08%

Section 1.7 – Schedule of Amortization Bases

		General County	County Agency	Sheriff's Office	County Library	Road Commission	Mental Health	Central Dispatch	
<u>Remaining Balances:</u>									
	Date Established	Remaining Period							
	12/31/2014	22	32,398,858	5,167,064	19,748,262	1,978,812	4,730,712	995,133	1,508,053
	12/31/2015	23	2,089,159	324,799	2,202,213	880,286	94,655	953,045	407,491
	12/31/2016	24	(463,770)	(86,640)	(830,103)	257,783	(1,264,166)	29,751	(258,666)
	12/31/2017	25	1,714,041	363,010	2,102,033	408,495	46,585	1,410,042	215,385
	Total Balances		35,738,288	5,768,233	23,222,405	3,525,376	3,607,786	3,387,971	1,872,263
<u>Amortization Payments:</u>									
	Date Established								
	12/31/2014		2,325,414	370,864	1,417,423	142,028	339,545	84,080	108,240
	12/31/2015		146,285	22,743	154,201	61,638	6,628	79,017	28,533
	12/31/2016		(31,734)	(5,929)	(56,801)	17,639	(86,503)	2,424	(17,700)
	12/31/2017		114,796	24,312	140,781	27,358	3,120	113,081	14,425
	Total Payments		2,554,761	411,990	1,655,604	248,663	262,790	278,602	133,498

Section 2: Plan Assets

Section 2.1 - Summary of Fair Value of Assets

Asset Category	Fair Value as of Dec. 31, 2017		Fair Value as of Dec. 31, 2016	
	Amount	%	Amount	%
1. Cash and Short-Term Investments				
a. Cash and cash equivalents	8,184,238	3.96%	14,810,262	7.45%
b. Other short-term	0	0.00%	0	0.00%
c. Total	8,184,238	3.96%	14,810,262	7.45%
2. Investments at Fair Value				
a. U.S. Treasury and agencies	11,981,061	5.79%	11,458,756	5.77%
b. Fixed Income	15,536,065	7.51%	18,396,523	9.26%
c. Domestic Stocks and Equity	140,196,577	67.77%	125,067,548	62.93%
d. International Equity	0	0.00%	0	0.00%
e. Real Estate	18,772,402	9.08%	17,431,977	8.77%
f. Hedge Funds	12,179,477	5.89%	11,558,375	5.82%
g. Total	198,665,582	96.04%	183,913,179	92.55%
3. Other Assets	0	0.00%	0	0.00%
4. Total Assets (1.c + 2.g + 3.)	206,849,820	100.00%	198,723,441	100.00%
5. Receivables				
a. Interest and Dividends	232,618		278,881	
b. Investments Sold	0		0	
c. Other Receivables	797		378,037	
d. Total	233,415		656,918	
6. Payables				
a. Payable for Investments Purchased	0		10,147,132	
b. Securities Lending Obligation in Excess of Collateral	0		0	
c. Accounts Payable and Accrued Liabilities	117,700		222,295	
d. Total	117,700		10,369,427	
7. Net Assets for Pension Benefits [4. + 5.d – 6.d.]	206,965,535		189,010,932	

Section 2.2 - Changes in Fair Value of Assets

Transactions	December 31, 2017	December 31, 2016
Additions		
1. Contributions		
a. Contributions from Employers	8,483,096	8,044,525
b. Contributions from Plan Members	868,337	851,150
c. Total	9,351,433	8,895,675
2. Net Investment Income		
a. Interest and Dividends	2,985,597	3,594,435
b. Net Appreciation(Depreciation)	22,438,109	9,630,128
c. Rental Income	0	0
d. Net Securities Lending Income	0	0
e. Securities Lending Unrealized Gain/(Loss)	0	0
f. Miscellaneous	0	0
g. Total	25,423,706	13,224,563
h. Investment Expense	(716,201)	(815,113)
i. Net Investment Income	24,707,505	12,409,450
3. Total Additions	34,058,938	21,305,125
Deductions		
4. Benefits and Expenses		
a. Retirement Benefits	15,516,850	15,094,283
b. Refund of Contributions	438,624	472,721
c. Death	0	0
d. Supplemental Payment	0	0
e. Administrative Expenses	148,861	169,405
5. Total Deductions	16,104,335	15,736,409
6. Net Increase	17,954,603	5,568,716
7. Net Assets Held in Trust for Pension Benefits		
a. Beginning of Year	189,010,932	183,442,216
b. End of Year	206,965,535	189,010,932

Section 2.3 - Actuarial Value of Assets (continued)

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	76,917,553	6,815,981	49,426,129	15,699,189	24,447,510	26,149,644	3,262,033	202,718,040
(2) Employee contributions	369,463	41,254	286,068	6,062	128,532	-	36,958	868,337
(3) Employer contributions	3,453,247	418,997	2,337,453	618,390	797,939	621,412	235,658	8,483,096
(4) Benefits paid	6,908,476	713,247	3,778,064	1,015,934	1,451,677	1,352,338	297,114	15,516,850
(5) Refund of contributions	96,961	-	269,095	-	41,652	30,493	423	438,624
(6) Administrative expense	56,484	5,005	36,295	11,528	17,952	19,202	2,395	148,861
Allocated on BOT asset value								
(7) Average valuation assets [(1)+0.5*{(2)+(3)-(4)-(5)-(6)}]	75,297,948	6,686,981	48,696,162	15,497,684	24,155,105	25,759,334	3,248,375	199,341,589
(8) Investment income Allocated on average valuation assets	4,240,459	376,582	2,742,359	872,763	1,360,312	1,450,655	182,935	11,226,065
(9) Transfer in	-	-	-	-	-	-	-	-
Transfer out	-	-	-	-	-	-	-	-
Net transfer of assets	-	-	-	-	-	-	-	-
(10) Valuation assets at end of year* [(1)+(2)+(3)-(4)-(5)-(6)+(8)+(9)]	77,918,802	6,934,562	50,708,555	16,168,942	25,223,012	26,819,678	3,417,652	207,191,203
(11) Total Revenues [(2)+(3)+(8)]	8,063,169	836,833	5,365,880	1,497,215	2,286,783	2,072,067	455,551	20,577,498
Percentage of revenue attributable to:								
Employee contributions	4.6%	4.9%	5.3%	0.4%	5.6%	0.0%	8.1%	4.2%
Employer contributions	42.8%	50.1%	43.6%	41.3%	34.9%	30.0%	51.7%	41.2%
Investment income	52.5%	45.0%	51.2%	58.3%	59.5%	70.0%	40.2%	54.6%
(12) Total Expenditures [(4)+(5)+(6)]	7,061,921	718,252	4,083,454	1,027,462	1,511,281	1,402,033	299,932	16,104,335
Percentage of expenditures attributable to:								
Benefits paid	97.8%	99.3%	92.5%	98.9%	96.1%	96.5%	99.1%	96.4%
Refund of contributions	1.4%	0.0%	6.6%	0.0%	2.8%	2.2%	0.1%	2.7%
Administrative expenses	0.8%	0.7%	0.9%	1.1%	1.2%	1.4%	0.8%	0.9%

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

Section 2.4 - Historical Asset Rate of Return

Year Ending December 31	Actuarial Value Annual Recognized Rate of Return	Fair Value Annual Market Rate of Return
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%
2015	5.71%	-0.60%
2016	5.02%	6.89%
2017	5.63%	13.31%

Section 2.5 - Forecast of Expected Benefit Payments

Year Ending December 31	Active Employees	Retired Members, Disabled Members and Beneficiaries	Grand Total
2018	374	15,681	16,055
2019	1,006	15,561	16,567
2020	1,787	15,440	17,227
2021	2,654	15,322	17,976
2022	3,579	15,153	18,732
2023	4,526	15,054	19,580
2024	5,584	14,857	20,441
2025	6,752	14,651	21,403
2026	7,931	14,375	22,306
2027	9,034	14,124	23,158
2028	10,009	13,907	23,916
2029	10,968	13,644	24,612
2030	11,977	13,337	25,314
2031	12,839	13,024	25,863
2032	13,638	12,725	26,363
2033	14,491	12,390	26,881
2034	15,349	12,015	27,364
2035	16,204	11,642	27,846
2036	16,807	11,243	28,050
2037	17,343	10,893	28,236
2038	17,842	10,460	28,302
2039	18,209	10,001	28,210
2040	18,608	9,543	28,151
2041	18,818	9,082	27,900
2042	19,029	8,580	27,609
2043	19,157	8,088	27,245
2044	19,181	7,600	26,781
2045	19,179	7,098	26,277
2046	19,077	6,601	25,678
2047	18,936	6,123	25,059
2048	18,852	5,645	24,497

*Forecast based on the present employees without assumption about replacen

Section 3: Accounting Information

Section 3.1 - Notes to Trend Data

Actuarial Assumptions, Methods and Additional Information for Funding

Valuation Date:	12/31/2017
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	7.00%
-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. In this case, a level dollar amortization is being used.

**At the September 21, 2015 Board meeting, the Board adopted a 25-year layered amortization with 2% annual payment increases (except for the Mental Health division for which the payments are level). 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, 2017 was determined by rolling forward the total pension liability as of December 31, 2016 to December 31, 2017 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, 2016 actuarial valuation report for more information.

Valuation Date:	12/31/2016
Actuarial Cost Method:	Entry Age
Amortization Method:	For pension expense, the differences 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 difference between projected and actual earnings is amortized over a closed period of five years.
Asset Valuation Method:	Market Value
Actuarial Assumptions:	
-Investment Rate of Return	7.00%
-Payroll Increases	3.5%-5.5% Vary by Employee Group
-Inflation Assumption	3.00%
-Discount Rate	7.00%

Section 3.2 - Schedule of Changes in Net Pension Liability

The GASB Statement No. 67 Changes in Net Pension Liability

Schedule of Changes In Net Pension Liability	Fiscal Year ending Dec. 31, 2017	Fiscal Year ending Dec. 31, 2016
Total pension liability		
Service Cost	\$ 3,852,383	\$ 4,007,459
Interest	19,352,896	18,590,127
Plan changes	-	-
Differences between expected and actual experience	(6,474,451)	4,215,420
Changes of assumptions	-	-
Benefit payments, including refunds of member contributions	<u>(15,955,474)</u>	<u>(15,567,004)</u>
Net change in total pension liability	775,354	11,246,002
Total pension liability - beginning	<u>280,595,291</u>	<u>269,349,289</u>
Total pension liability - ending (a)	<u>\$ 281,370,645</u>	<u>\$ 280,595,291</u>
Plan fiduciary net position		
Contributions - employer	\$ 8,483,096	\$ 8,044,525
Contributions - member*	868,337	851,150
Net investment income	24,707,505	12,409,450
Benefit payments, including refunds of member contributions	(15,955,474)	(15,567,004)
Administrative expense	(148,861)	(169,405)
Other	<u>-</u>	<u>-</u>
Net change in plan fiduciary net position	17,954,603	5,568,716
Plan fiduciary net position - beginning	<u>189,010,932</u>	<u>183,442,216</u>
Plan fiduciary net position - ending (b)	<u>\$ 206,965,535</u>	<u>\$ 189,010,932</u>
Net pension liability (asset) - ending (a)-(b)	\$ 74,405,110	\$ 91,584,359

* Include Time purchase

Section 3.3 - Net Pension Liability (Asset)

The GASB Statement No. 67 Net Pension Liability

Net pension liability (asset)	Dec. 31, 2017	Dec. 31, 2016
Total pension liability	\$ 281,370,645	\$ 280,595,291
Plan fiduciary net position	<u>206,965,535</u>	<u>189,010,932</u>
Net pension liability (asset)	<u>\$ 74,405,110</u>	<u>\$ 91,584,359</u>
Plan fiduciary net position as a percentage of the total pension liability	73.56%	67.36%
Covered employee payroll	\$ 35,292,710	\$ 34,786,368
Net pension liability (asset) as a percentage of covered employee payroll	210.82%	263.28%

Section 3.4 - Sensitivity

The GASB Statement No. 67 Sensitivity of Net Pension Liability

Sensitivity of the Net Pension Liability to Changes in Discount Rates at Dec. 31, 2017	1% Decrease	Current Discount Rate	1 % increase
Discount rate	6.00%	7.00%	8.00%
Total pension liability	\$ 315,510,557	\$ 281,370,645	\$ 252,789,509
Plan fiduciary net position	<u>206,965,535</u>	<u>206,965,535</u>	<u>206,965,535</u>
Net pension liability (asset)	\$ 108,545,022	\$ 74,405,110	\$ 45,823,974

Section 3.5 - 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 \$ 11,066,844 for the 2017 fiscal year.

Item	Measurement Year Ending Dec. 31, 2017	Measurement Year Ending Dec. 31, 2016
Pension Expense		
Employer's fiscal year ending in	<u>2018</u>	<u>2017</u>
Service Cost	\$ 3,852,383	\$ 4,007,459
Interest Cost on Total Pension Liability	19,352,896	18,590,127
Projected Earnings On Plan Investments	(12,994,414)	(12,601,529)
Contributions - Member	(868,337)	(851,150)
Administrative Expense	148,861	169,405
Current period		
Plan changes	-	-
Changes of Assumptions	-	-
Differences between expected and actual liab. experience	(1,502,193)	951,563
Difference between projected and actual earnings	(2,342,619)	38,416
Recognition of prior years'		
Deferred outflows	5,787,830	4,797,851
Deferred inflows	(367,563)	(367,563)
Other changes in fiduciary net position	-	-
Total Pension Expense	11,066,844	14,734,579

At December 31, 2017, Monroe County ERS reported deferred outflows of resources and deferred inflows of resources related to pensions.

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 2,312,294	\$ (5,534,629)
Changes of assumptions	1,385,049	0
Net difference between projected and actual earnings on pension plan investments	<u>6,863,833</u>	<u>(9,370,472)</u>
Total	\$ 10,561,176	\$(14,905,101)

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	
2017	\$ 1,575,455
2018	1,75,451
2019	286,150
2020	(3,397,232)
2021	(2,808,294)
Thereafter	0

Section 3.6 – Employer Proportion of GASB Items as of December 31, 2017

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

Employer	Total Employer Contribution	Ratio of Employer Contribution over Total Contribution
General County	3,453,247	40.71%
County Agency	418,997	4.94%
Sheriff's Office	2,337,453	27.55%
County Library	618,390	7.29%
Road Commission	797,939	9.41%
Mental Health	621,412	7.33%
Central Dispatch	235,658	2.78%
TOTAL	8,483,096	100.00%

Section 3.7 – Employers’ Allocation of Pension Amounts as of December 31, 2017

Deferred Outflows of Resources								
Employer Name	Net Pension Liability	Employer Proportion	Difference Between Expected and Actual Experience	Changes in Assumptions	Changes in Benefits	Changes in Investment Earnings	Difference Between Projected and Actual Contributions and Proportionate Share of Contributions	Total Deferred Outflows
General County	30,288,379	40.70739%	941,275	563,817	-	-	1,904,588	3,409,680
County Agency	3,675,017	4.93920%	114,209	68,410	-	-	181,515	364,134
Sheriff's Office	20,501,766	27.55424%	637,135	381,640	-	-	383,399	1,402,173
County Library	5,423,890	7.28967%	168,559	100,966	-	-	681,613	951,137
Road Commission	6,998,711	9.40622%	217,500	130,281	-	-	-	347,780
Mental Health	5,450,395	7.32530%	169,382	101,459	-	-	239,542	510,383
Central Dispatch	2,066,953	2.77797%	64,235	38,476	-	-	318,966	421,677
Total	74,405,110	100.00000%	2,312,294	1,385,049	-	-	3,709,621	7,406,964

Deferred Inflows of Resources								
Employer Name	Difference Between Expected and Actual Experience	Changes in Assumptions	Changes in Benefits	Changes in Investment Earnings	Difference Between Projected and Actual Contributions and Proportionate Share of Contributions	Total Deferred Inflows		
General County	2,253,003	-	-	1,020,387	-	3,273,390		
County Agency	273,366	-	-	123,808	533,888	931,063		
Sheriff's Office	1,525,025	-	-	690,685	880,224	3,095,935		
County Library	403,456	-	-	182,726	101,877	688,059		
Road Commission	520,600	-	-	235,780	1,653,558	2,409,937		
Mental Health	405,428	-	-	183,619	540,074	1,129,121		
Central Dispatch	153,750	-	-	69,634	-	223,384		
Total	5,534,629	-	-	2,506,639	3,709,621	11,750,889		

Pension Expense Recognized			
Employer Name	Proportionate Share of Pension Plan Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total
General County	4,505,023	729,469	5,234,493
County Agency	546,613	(74,477)	472,137
Sheriff's Office	3,049,385	(171,979)	2,877,406
County Library	806,737	163,896	970,633
Road Commission	1,040,972	(580,112)	460,860
Mental Health	810,679	(168,830)	641,850
Central Dispatch	307,434	102,032	409,466

Buck **Total** **11,066,844** **0** **11,066,844**

Section 3.8 - Supporting Exhibits

The discount rate used to measure the total pension liability was 7.00%. 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, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. The cross over analysis thus produced a single rate of 7.00 percent, which reflects the long-term expected rate of return on ERS investments. Therefore, the discount rate was applied to all periods of projected benefit payments to determine the total pension liability. Had projected benefit payments not been fully covered by the Plan's projected fiduciary net position, a municipal bond rate of 3.16 percent would have been used to discount the benefit payments not covered by the Plan's fiduciary net position. The 3.16 percent rate equals the S&P Municipal Bond 20-Year High Grade Rate Index (yield to maturity) at December 31, 2017. Please see following two tables for additional detail.

Section 3.8 – Supporting Exhibits (continued)

Table 1- Projection of Fiduciary Net Position

Fiscal Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f)=(a)+(b)-(c)-(d)+(e)
2017	189,010,932	9,351,433	15,955,474	148,861	24,707,505	206,965,535
2018	206,965,535	10,160,256	15,845,405	153,327	14,283,241	215,410,300
2019	215,410,300	11,119,642	16,359,259	157,927	14,889,807	224,902,563
2020	224,902,563	11,006,651	17,024,755	162,665	15,526,852	234,248,646
2021	234,248,646	10,808,169	17,790,540	167,545	16,147,158	243,245,888
2022	243,245,888	10,712,364	18,577,041	172,571	16,745,908	251,954,548
2023	251,954,548	10,529,155	19,464,956	177,748	17,317,844	260,158,843
2024	260,158,843	10,140,021	20,304,509	183,080	17,848,954	267,660,229
2025	267,660,229	9,668,706	21,257,668	188,572	18,324,002	274,206,697
2026	274,206,697	9,356,624	22,152,906	194,229	18,739,801	279,955,987
2027	279,955,987	9,044,972	22,998,294	200,056	19,101,551	284,904,160
2028	284,904,160	8,738,726	23,732,986	206,058	19,411,280	289,115,122
2029	289,115,122	8,438,362	24,405,033	212,240	19,671,797	292,608,008
2030	292,608,008	8,113,118	25,088,843	218,607	19,880,759	295,294,435
2031	295,294,435	7,782,234	25,614,894	225,165	20,038,587	297,275,197
2032	297,275,197	7,437,108	26,113,521	231,920	20,147,472	298,514,336
2033	298,514,336	7,047,968	26,602,514	238,878	20,203,234	298,924,146
2034	298,924,146	6,619,383	27,066,675	246,044	20,200,423	298,431,233
2035	298,431,233	6,154,064	27,544,047	253,425	20,132,667	296,920,492
2036	296,920,492	5,647,320	27,724,956	261,028	20,002,581	294,584,409
2037	294,584,409	5,037,911	27,870,331	268,859	19,812,364	291,295,494
2038	291,295,494	4,301,140	27,905,508	276,925	19,554,839	286,969,040
2039	286,969,040	3,343,845	27,783,970	285,233	19,222,445	281,466,127
2040	281,466,127	1,969,512	27,682,080	293,790	18,792,406	274,252,175
2041	274,252,175	1,002,596	27,389,176	302,604	18,263,531	265,826,522
2042	265,826,522	960,872	27,055,623	311,682	17,683,631	257,103,720
2043	257,103,720	918,486	26,660,893	321,032	17,085,040	248,125,321
2044	248,125,321	874,503	26,157,758	330,663	16,472,285	238,983,688
2045	238,983,688	837,520	25,621,725	340,583	15,849,491	229,708,391
2046	229,708,391	800,069	24,969,797	350,800	15,221,369	220,409,232
2047	220,409,232	783,283	24,290,993	361,324	14,593,230	211,133,428
2048	211,133,428	758,919	23,696,313	372,164	13,963,505	201,787,375
2049	201,787,375	736,201	22,903,821	383,329	13,335,833	192,572,259
2050	192,572,259	740,288	22,123,121	394,829	12,717,840	183,512,437
2051	183,512,437	736,329	21,369,542	406,674	12,109,475	174,582,025
2052	174,582,025	727,314	20,660,250	418,874	11,508,428	165,738,643
2053	165,738,643	727,526	19,861,064	431,440	10,916,931	157,090,596
2054	157,090,596	741,083	19,008,122	444,383	10,341,442	148,720,616
2055	148,720,616	749,306	18,178,241	457,714	9,784,410	140,618,377
2056	140,618,377	759,658	17,326,728	471,445	9,246,938	132,826,800
2057	132,826,800	774,953	16,465,689	485,588	8,731,705	125,382,181
2058	125,382,181	792,255	15,605,752	500,156	8,240,775	118,309,303
2059	118,309,303	810,867	14,740,604	515,161	7,776,080	111,640,485
2060	111,640,485	834,793	13,887,875	530,616	7,339,405	105,396,192
2061	105,396,192	857,126	13,051,483	546,534	6,931,802	99,587,103
2062	99,587,103	882,230	12,234,263	562,930	6,554,074	94,226,214
2063	94,226,214	910,764	11,435,734	579,818	6,207,167	89,328,593
2064	89,328,593	934,725	10,659,116	597,213	5,891,745	84,898,734
2065	84,898,734	966,823	9,908,669	615,129	5,608,417	80,950,176
2066	80,950,176	993,923	9,185,716	633,583	5,357,624	77,482,424

Section 3.8 – Supporting Exhibits (continued)

Table 1- Projection of Fiduciary Net Position (continued)

Fiscal Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit payments (c)	Projected Administrative Expenses (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f)=(a)+(b)-(c)-(d)+(e)
2067	77,482,424	1,026,436	8,491,001	652,590	5,139,669	74,504,938
2068	74,504,938	1,058,727	7,826,168	672,168	4,954,959	72,020,288
2069	72,020,288	1,094,125	7,191,408	692,333	4,803,784	70,034,456
2070	70,034,456	1,131,479	6,588,003	713,103	4,686,475	68,551,304
2071	68,551,304	1,167,178	6,016,224	734,496	4,603,167	67,570,929
2072	67,570,929	1,205,964	5,476,197	756,531	4,554,028	67,098,193
2073	67,098,193	1,245,706	4,968,000	779,227	4,539,320	67,135,992
2074	67,135,992	1,286,139	4,491,519	802,604	4,559,240	67,687,248
2075	67,687,248	1,328,403	4,046,475	826,682	4,614,041	68,756,535
2076	68,756,535	1,370,093	3,632,338	851,482	4,703,977	70,346,785
2077	70,346,785	1,417,029	3,248,374	877,026	4,829,482	72,467,896
2078	72,467,896	1,459,373	2,893,701	903,337	4,990,934	75,121,165
2079	75,121,165	1,504,398	2,567,213	930,437	5,188,718	78,316,631
2080	78,316,631	1,552,750	2,267,826	958,350	5,423,594	82,066,799
2081	82,066,799	1,603,772	1,994,465	987,101	5,696,453	86,385,458
2082	86,385,458	1,651,358	1,745,993	1,016,714	6,008,085	91,282,194
2083	91,282,194	1,700,677	1,521,194	1,047,215	6,359,383	96,773,845
2084	96,773,845	1,754,297	1,318,695	1,078,631	6,751,663	102,882,479
2085	102,882,479	1,810,481	1,137,171	1,110,990	7,186,455	109,631,254
2086	109,631,254	1,864,708	975,263	1,144,320	7,665,267	117,041,646

There is no crossover point in this analysis.

After 2081, the projected investment earnings will exceed the projected benefit payments and administrative expenses.

Section 3.8 – Supporting Exhibits (continued)

Table 2- Actuarial Present Values of Projected Benefit Payments

Fiscal Year	Period (a)	Projected Beginning Fiduciary Net Position (b)	Projected Benefit Payments (c)	Projected Benefit Payments		Present Value of Benefit Payments		
				"Funded" Portion (d)	"UnFunded" Portion (e)	Funded Portion at 7.00%* (f)= (d)/(1+i)^(a)	Unfunded Portion at 3.16% (g)= (e)/(1+3.16%)^(a)	Using a Single Discount Rate of 7.0% (h)=(c)/(1+7.%)^(a)
2017	1	189,010,932	15,955,474	15,955,474	0	14,911,658	0	14,911,658
2018	2	206,965,535	15,845,405	15,845,405	0	13,839,990	0	13,839,990
2019	3	215,410,300	16,359,259	16,359,259	0	13,354,028	0	13,354,028
2020	4	224,902,563	17,024,755	17,024,755	0	12,988,104	0	12,988,104
2021	5	234,248,646	17,790,540	17,790,540	0	12,684,409	0	12,684,409
2022	6	243,245,888	18,577,041	18,577,041	0	12,378,667	0	12,378,667
2023	7	251,954,548	19,464,956	19,464,956	0	12,121,796	0	12,121,796
2024	8	260,158,843	20,304,509	20,304,509	0	11,817,409	0	11,817,409
2025	9	267,660,229	21,257,668	21,257,668	0	11,562,763	0	11,562,763
2026	10	274,206,697	22,152,906	22,152,906	0	11,261,414	0	11,261,414
2027	11	279,955,987	22,998,294	22,998,294	0	10,926,324	0	10,926,324
2028	12	284,904,160	23,732,986	23,732,986	0	10,537,730	0	10,537,730
2029	13	289,115,122	24,405,033	24,405,033	0	10,127,221	0	10,127,221
2030	14	292,608,008	25,088,843	25,088,843	0	9,729,886	0	9,729,886
2031	15	295,294,435	25,614,894	25,614,894	0	9,284,016	0	9,284,016
2032	16	297,275,197	26,113,521	26,113,521	0	8,845,553	0	8,845,553
2033	17	298,514,336	26,602,514	26,602,514	0	8,421,675	0	8,421,675
2034	18	298,924,146	27,066,675	27,066,675	0	8,008,052	0	8,008,052
2035	19	298,431,233	27,544,047	27,544,047	0	7,616,159	0	7,616,159
2036	20	296,920,492	27,724,956	27,724,956	0	7,164,655	0	7,164,655
2037	21	294,584,409	27,870,331	27,870,331	0	6,731,050	0	6,731,050
2038	22	291,295,494	27,905,508	27,905,508	0	6,298,641	0	6,298,641
2039	23	286,969,040	27,783,970	27,783,970	0	5,860,942	0	5,860,942
2040	24	281,466,127	27,682,080	27,682,080	0	5,457,429	0	5,457,429
2041	25	274,252,175	27,389,176	27,389,176	0	5,046,433	0	5,046,433
2042	26	265,826,522	27,055,623	27,055,623	0	4,658,856	0	4,658,856
2043	27	257,103,720	26,660,893	26,660,893	0	4,290,547	0	4,290,547
2044	28	248,125,321	26,157,758	26,157,758	0	3,934,185	0	3,934,185
2045	29	238,983,688	25,621,725	25,621,725	0	3,601,462	0	3,601,462
2046	30	229,708,391	24,969,797	24,969,797	0	3,280,210	0	3,280,210
2047	31	220,409,232	24,290,993	24,290,993	0	2,982,278	0	2,982,278
2048	32	211,133,428	23,696,313	23,696,313	0	2,718,942	0	2,718,942
2049	33	201,787,375	22,903,821	22,903,821	0	2,456,084	0	2,456,084
2050	34	192,572,259	22,123,121	22,123,121	0	2,217,165	0	2,217,165
2051	35	183,512,437	21,369,542	21,369,542	0	2,001,534	0	2,001,534
2052	36	174,582,025	20,660,250	20,660,250	0	1,808,504	0	1,808,504
2053	37	165,738,643	19,861,064	19,861,064	0	1,624,811	0	1,624,811
2054	38	157,090,596	19,008,122	19,008,122	0	1,453,301	0	1,453,301
2055	39	148,720,616	18,178,241	18,178,241	0	1,298,926	0	1,298,926
2056	40	140,618,377	17,326,728	17,326,728	0	1,157,085	0	1,157,085
2057	41	132,826,800	16,465,689	16,465,689	0	1,027,650	0	1,027,650
2058	42	125,382,181	15,605,752	15,605,752	0	910,261	0	910,261
2059	43	118,309,303	14,740,604	14,740,604	0	803,550	0	803,550
2060	44	111,640,485	13,887,875	13,887,875	0	707,538	0	707,538
2061	45	105,396,192	13,051,483	13,051,483	0	621,427	0	621,427
2062	46	99,587,103	12,234,263	12,234,263	0	544,407	0	544,407
2063	47	94,226,214	11,435,734	11,435,734	0	475,583	0	475,583
2064	48	89,328,593	10,659,116	10,659,116	0	414,286	0	414,286
2065	49	84,898,734	9,908,669	9,908,669	0	359,924	0	359,924
2066	50	80,950,176	9,185,716	9,185,716	0	311,834	0	311,834

Section 3.8 – Supporting Exhibits (continued)

Table 2- Actuarial Present Values of Projected Benefit Payments (continued)

Fiscal Year	Period (a)	Projected Beginning Fiduciary Net Position (b)	Projected Benefit Payments (c)	Projected Benefit Payments		Present Value of Benefit Payments		
				"Funded" Portion (d)	"UnFunded" Portion (e)	Funded Portion at 7.00%* (f)= (d)/(1+i)^a	Unfunded Portion at 3.16% (g)= (e)/(1+3.16%)^a	Using a Single Discount Rate of 7.0% (h)=(c)/(1+7.0%)^a
2067	51	77,482,424	8,491,001	8,491,001	0	269,393	0	269,393
2068	52	74,504,938	7,826,168	7,826,168	0	232,056	0	232,056
2069	53	72,020,288	7,191,408	7,191,408	0	199,285	0	199,285
2070	54	70,034,456	6,588,003	6,588,003	0	170,620	0	170,620
2071	55	68,551,304	6,016,224	6,016,224	0	145,618	0	145,618
2072	56	67,570,929	5,476,197	5,476,197	0	123,876	0	123,876
2073	57	67,098,193	4,968,000	4,968,000	0	105,028	0	105,028
2074	58	67,135,992	4,491,519	4,491,519	0	88,743	0	88,743
2075	59	67,687,248	4,046,475	4,046,475	0	74,720	0	74,720
2076	60	68,756,535	3,632,338	3,632,338	0	62,684	0	62,684
2077	61	70,346,785	3,248,374	3,248,374	0	52,391	0	52,391
2078	62	72,467,896	2,893,701	2,893,701	0	43,617	0	43,617
2079	63	75,121,165	2,567,213	2,567,213	0	36,165	0	36,165
2080	64	78,316,631	2,267,826	2,267,826	0	29,857	0	29,857
2081	65	82,066,799	1,994,465	1,994,465	0	24,540	0	24,540
2082	66	86,385,458	1,745,993	1,745,993	0	20,078	0	20,078
2083	67	91,282,194	1,521,194	1,521,194	0	16,348	0	16,348
2084	68	96,773,845	1,318,695	1,318,695	0	13,245	0	13,245
2085	69	102,882,479	1,137,171	1,137,171	0	10,674	0	10,674
2086	70	109,631,254	975,263	975,263	0	8,556	0	8,556

There is no crossover point in this analysis.

After 2081, the projected investment earnings will exceed the projected benefit payments and administrative expenses.

Section 4: Actuarial Funding Projections

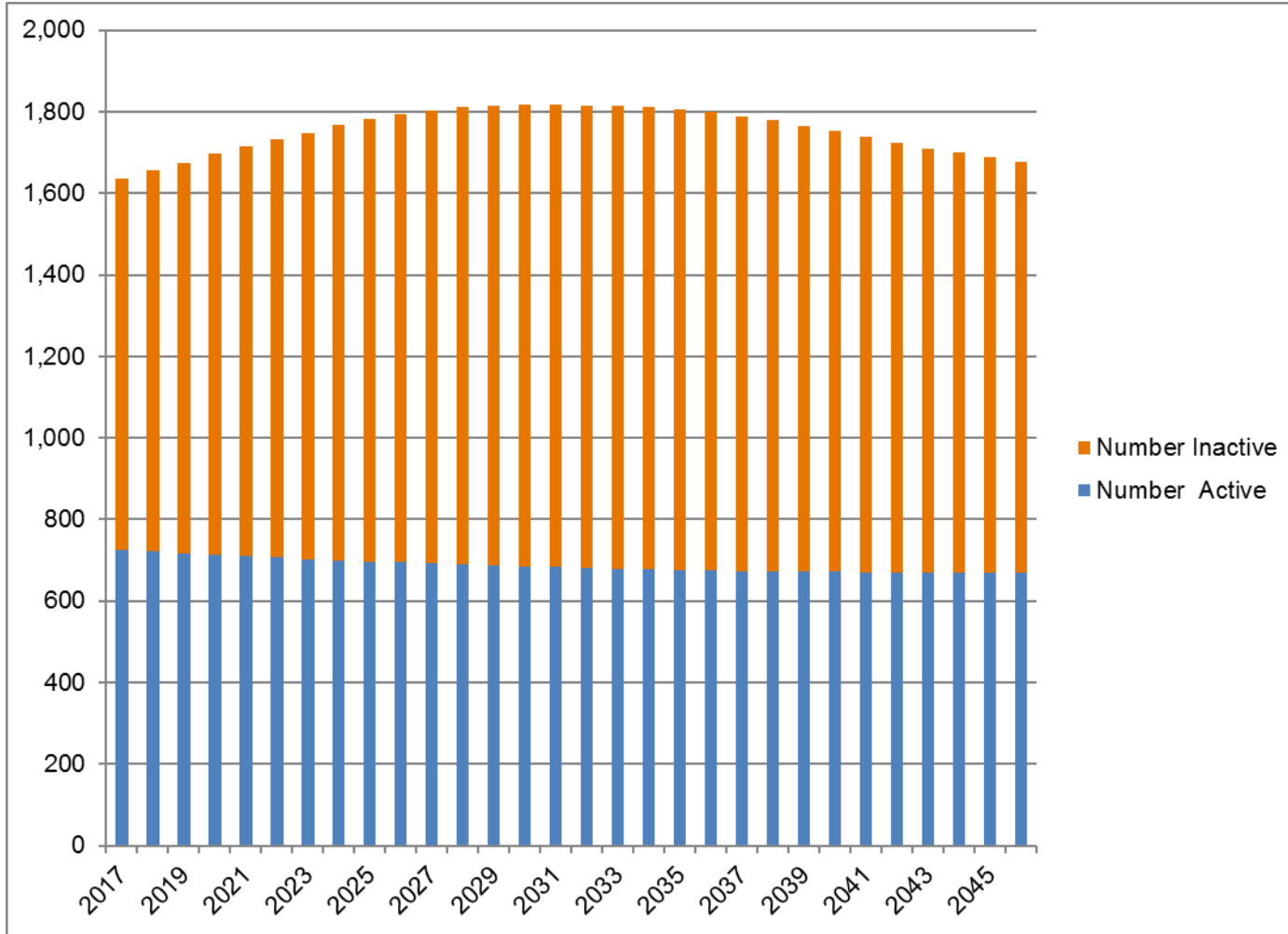
Section 4.1 - Projection Assumptions and Methods

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.
- Unfunded actuarial accrued liability is amortized over a 25-year layered amortization with 2% annual payment increases.

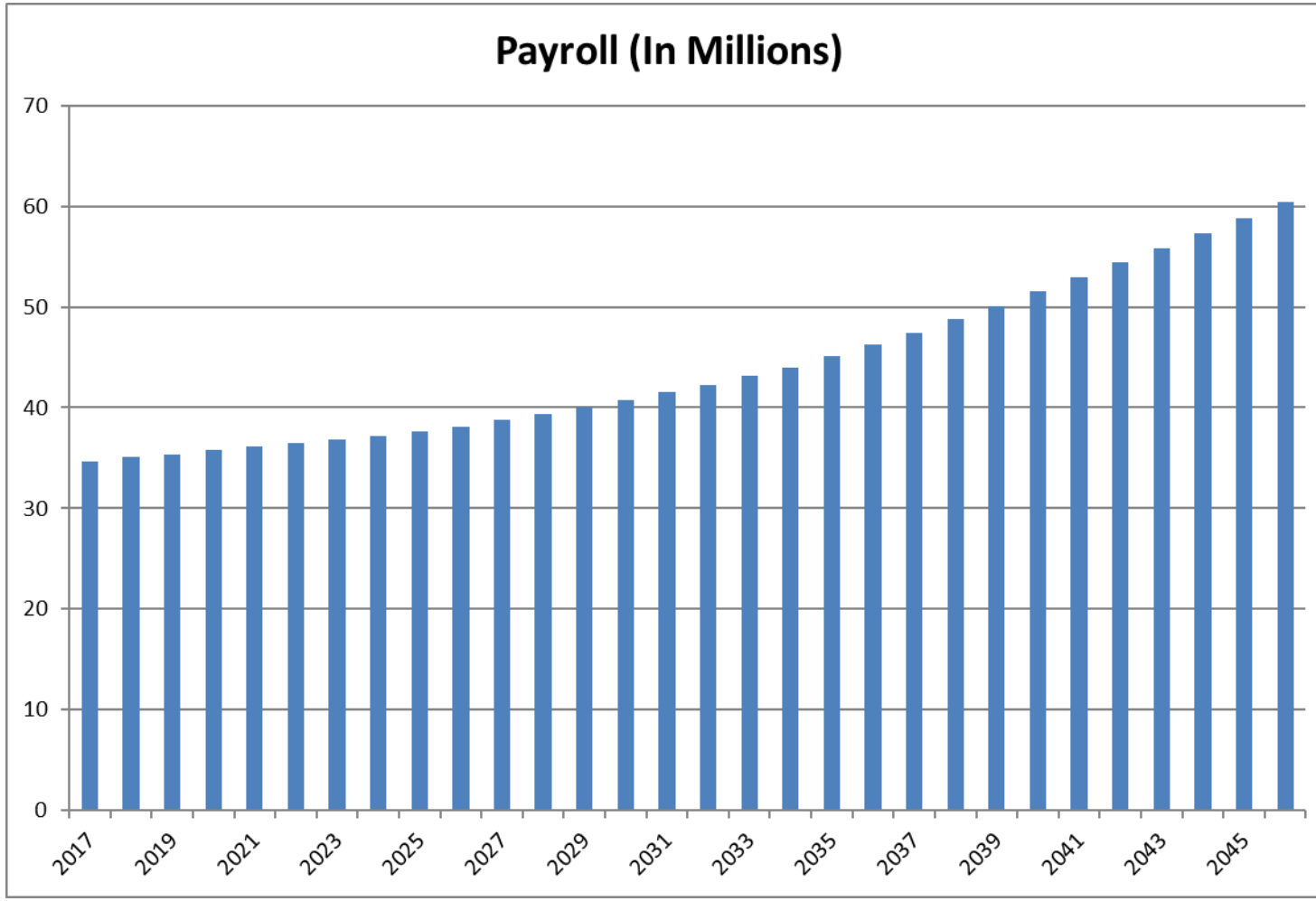
Section 4.2 - Membership Projection

Projected Member Count

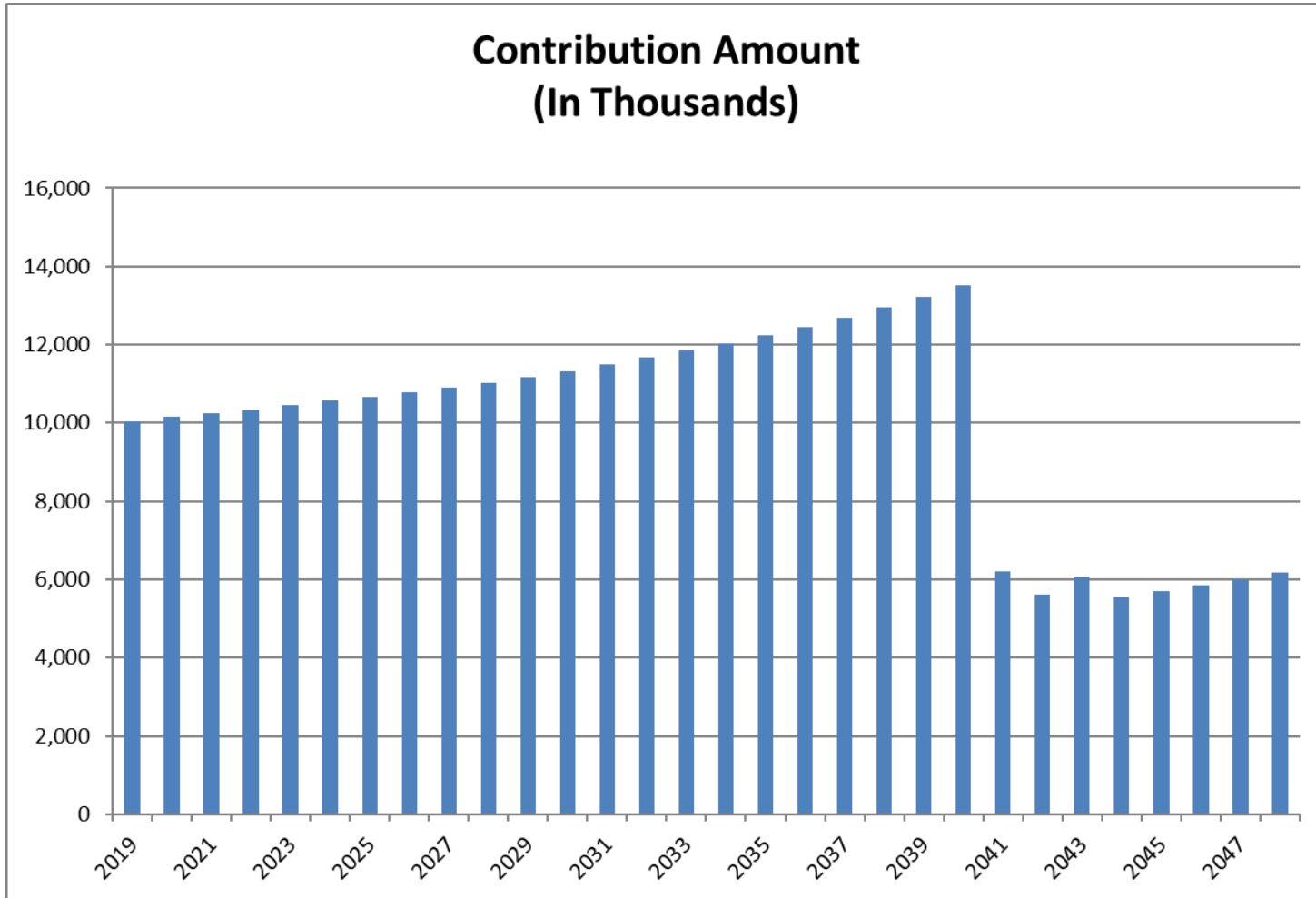


Section 4.2 - Membership Projection (cont'd)

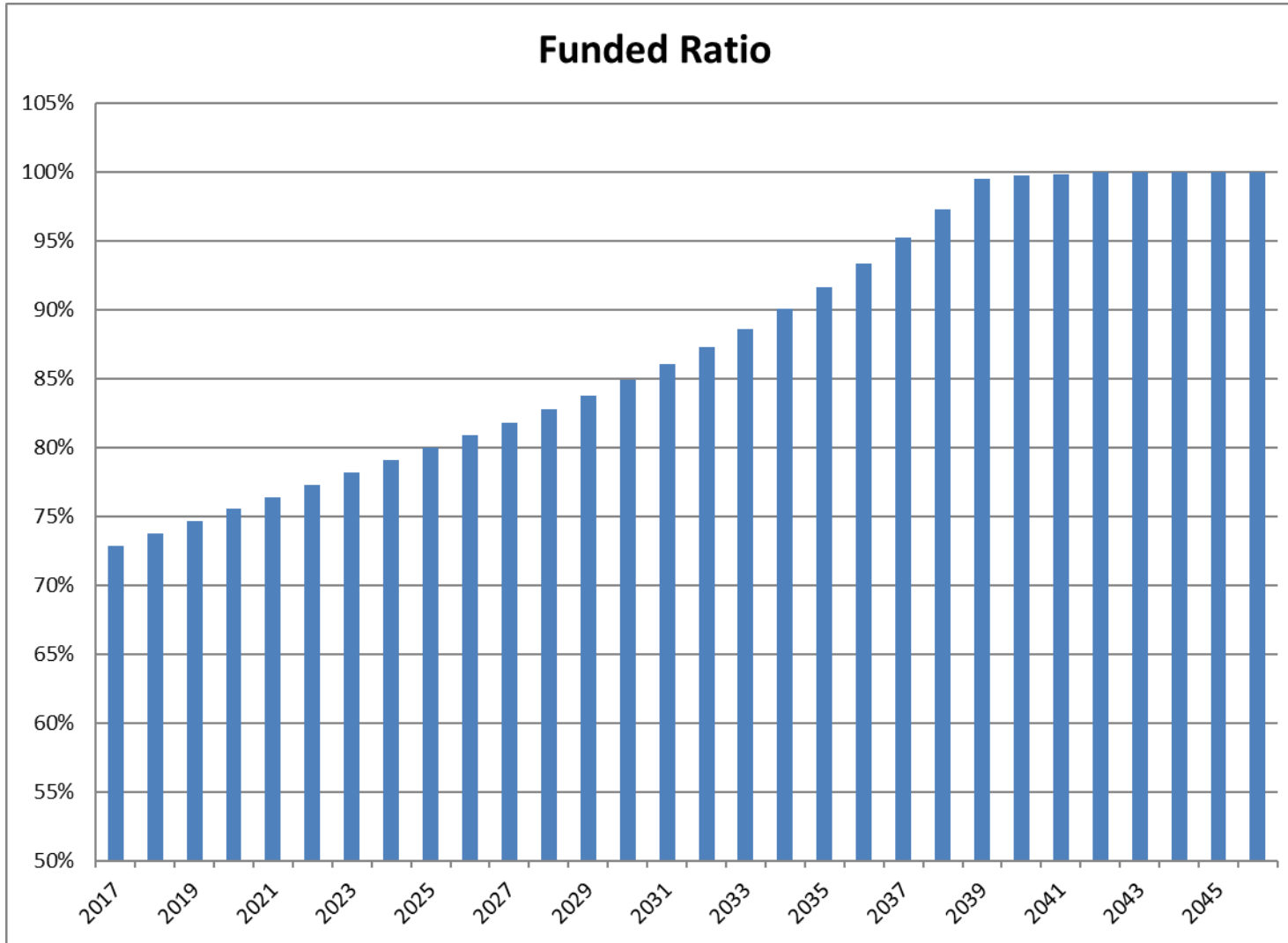
Projected Current and New Member Payroll



Section 4.3 - Projection of Total 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					
2017	207,191	113,657	12,703	73,931	19,694	28,831	30,208	5,290	284,314	72.87%	(77,122)	2019	10,051	16,568
2018	215,300	115,702	13,003	76,144	20,492	29,850	31,186	5,511	291,887	73.76%	(76,587)	2020	10,155	17,228
2019	223,553	117,665	13,314	78,454	21,287	30,849	32,140	5,745	299,454	74.65%	(75,901)	2021	10,239	17,976
2020	231,784	119,502	13,610	80,797	22,073	31,816	33,048	5,991	306,836	75.54%	(75,052)	2022	10,351	18,733
2021	239,931	121,207	13,874	83,124	22,874	32,774	33,856	6,249	313,958	76.42%	(74,027)	2023	10,456	19,581
2022	247,973	122,769	14,113	85,399	23,678	33,699	34,601	6,523	320,783	77.30%	(72,810)	2024	10,568	20,442
2023	255,814	124,129	14,330	87,599	24,498	34,539	35,290	6,814	327,200	78.18%	(71,386)	2025	10,662	21,404
2024	263,407	125,271	14,529	89,668	25,343	35,277	35,940	7,118	333,145	79.07%	(69,738)	2026	10,771	22,308
2025	270,648	126,193	14,704	91,554	26,211	35,897	36,507	7,430	338,495	79.96%	(67,847)	2027	10,889	23,162
2026	277,580	126,913	14,854	93,241	27,104	36,436	37,018	7,711	343,275	80.86%	(65,695)	2028	11,020	23,926
2027	284,247	127,487	14,991	94,722	28,023	36,889	37,409	7,986	347,507	81.80%	(63,260)	2029	11,171	24,630
2028	290,743	127,867	15,124	96,003	28,985	37,299	37,728	8,258	351,263	82.77%	(60,520)	2030	11,322	25,344
2029	297,117	128,123	15,245	97,075	29,986	37,686	37,922	8,530	354,568	83.80%	(57,451)	2031	11,483	25,912
2030	303,362	128,221	15,352	97,948	31,016	38,032	38,018	8,802	357,388	84.88%	(54,026)	2032	11,665	26,437
2031	309,641	128,271	15,457	98,646	32,104	38,356	37,956	9,069	359,860	86.04%	(50,219)	2033	11,853	26,985
2032	316,007	128,274	15,542	99,191	33,257	38,648	37,766	9,328	362,007	87.29%	(46,000)	2034	12,039	27,507
2033	322,440	128,193	15,609	99,579	34,476	38,940	37,446	9,531	363,776	88.64%	(41,336)	2035	12,239	28,032
2034	328,985	127,983	15,649	99,779	35,770	39,231	37,044	9,724	365,180	90.09%	(36,194)	2036	12,446	28,284
2035	335,656	127,645	15,671	99,822	37,154	39,499	36,546	9,858	366,194	91.66%	(30,538)	2037	12,692	28,524
2036	342,780	127,244	15,692	99,764	38,647	39,811	35,953	9,997	367,108	93.37%	(24,328)	2038	12,948	28,650
2037	350,414	126,807	15,691	99,624	40,248	40,187	35,243	10,137	367,937	95.24%	(17,522)	2039	13,221	28,634
2038	358,729	126,312	15,703	99,444	41,958	40,650	34,444	10,294	368,806	97.27%	(10,076)	2040	13,511	28,667
2039	367,935	125,839	15,720	99,279	43,791	41,202	33,582	10,463	369,876	99.48%	(1,941)	2041	6,195	28,561
2040	370,173	125,381	15,758	99,098	45,760	41,879	32,611	10,622	371,109	99.75%	(936)	2042	5,597	28,478
2041	372,051	125,003	15,822	98,951	47,854	42,701	31,572	10,783	372,686	99.83%	(636)	2043	6,046	28,370
2042	374,604	124,738	15,922	98,864	49,999	43,681	30,439	10,962	374,604	100.00%	(0)	2044	5,541	28,277
2043	376,916	124,604	16,037	98,825	52,198	44,820	29,276	11,155	376,916	100.00%	(0)	2045	5,688	28,254
2044	379,632	124,620	16,186	98,857	54,429	46,082	28,092	11,365	379,632	100.00%	(0)	2046	5,841	28,226
2045	382,713	124,814	16,364	98,960	56,672	47,437	26,879	11,586	382,713	100.00%	(0)	2047	6,001	28,251
2046	386,195	125,204	16,593	99,099	58,951	48,869	25,663	11,817	386,195	100.00%	(0)	2048	6,170	28,394

Note: Forecast based on the employee group as of December 31, 2017 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

Valuation as of Dec. 31	Contribution for Fiscal Year*	General County	County Agency	Sheriff's Office	County Library	Road Commission	Central Dispatch	Mental Health	Total Contribution
2017	2019	4,072,000	578,000	2,820,000	849,000	750,000	274,000	708,000	10,051,000
2018	2020	4,114,000	589,000	2,863,000	862,000	756,000	279,000	692,000	10,155,000
2019	2021	4,144,000	597,000	2,900,000	880,000	763,000	283,000	672,000	10,239,000
2020	2022	4,186,000	606,000	2,932,000	913,000	773,000	289,000	652,000	10,351,000
2021	2023	4,228,000	616,000	2,958,000	937,000	788,000	294,000	635,000	10,456,000
2022	2024	4,273,000	625,000	2,992,000	965,000	796,000	300,000	617,000	10,568,000
2023	2025	4,316,000	635,000	3,008,000	995,000	802,000	305,000	601,000	10,662,000
2024	2026	4,367,000	645,000	3,024,000	1,025,000	821,000	309,000	580,000	10,771,000
2025	2027	4,422,000	656,000	3,040,000	1,055,000	846,000	306,000	564,000	10,889,000
2026	2028	4,487,000	667,000	3,055,000	1,086,000	869,000	310,000	546,000	11,020,000
2027	2029	4,554,000	680,000	3,082,000	1,121,000	895,000	313,000	526,000	11,171,000
2028	2030	4,626,000	692,000	3,104,000	1,155,000	921,000	318,000	506,000	11,322,000
2029	2031	4,704,000	705,000	3,132,000	1,190,000	944,000	321,000	487,000	11,483,000
2030	2032	4,788,000	719,000	3,167,000	1,230,000	972,000	324,000	465,000	11,665,000
2031	2033	4,872,000	733,000	3,209,000	1,268,000	999,000	328,000	444,000	11,853,000
2032	2034	4,962,000	747,000	3,251,000	1,307,000	1,029,000	320,000	423,000	12,039,000
2033	2035	5,052,000	761,000	3,289,000	1,348,000	1,056,000	326,000	407,000	12,239,000
2034	2036	5,143,000	775,000	3,335,000	1,392,000	1,088,000	321,000	392,000	12,446,000
2035	2037	5,246,000	789,000	3,392,000	1,435,000	1,121,000	330,000	379,000	12,692,000
2036	2038	5,352,000	805,000	3,456,000	1,479,000	1,157,000	336,000	363,000	12,948,000
2037	2039	5,463,000	821,000	3,521,000	1,528,000	1,194,000	344,000	350,000	13,221,000
2038	2040	5,581,000	838,000	3,591,000	1,577,000	1,231,000	352,000	341,000	13,511,000
2039	2041	1,985,000	263,000	1,396,000	1,398,000	727,000	183,000	243,000	6,195,000
2040	2042	1,798,000	233,000	1,182,000	1,343,000	746,000	143,000	152,000	5,597,000
2041	2043	1,896,000	250,000	1,307,000	1,354,000	919,000	177,000	143,000	6,046,000
2042	2044	1,753,000	215,000	1,100,000	1,350,000	946,000	157,000	20,000	5,541,000
2043	2045	1,802,000	221,000	1,124,000	1,392,000	972,000	161,000	16,000	5,688,000
2044	2046	1,852,000	229,000	1,149,000	1,435,000	1,000,000	164,000	12,000	5,841,000
2045	2047	1,908,000	236,000	1,173,000	1,478,000	1,028,000	169,000	9,000	6,001,000
2046	2048	1,963,000	244,000	1,203,000	1,525,000	1,057,000	172,000	6,000	6,170,000

* Contribution amounts listed are to be paid during the fiscal year ended December 31, and actuarial anticipated to be paid in the middle of the year.

Section 5: Member Data

Section 5.1 - Summary of Members Included

As of December 31	Summary of Members Included															
	General County		County Agency		Sheriff's Office		County Library		Road Commission		Mental Health		Central Dispatch		Total	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Active Members																
(1) Number	290	275	30	29	146	143	108	104	72	77	57	63	22	22	725	713
(2) Average Age	46.4	46.8	42.4	41.1	39.7	40.6	48.8	49.1	50.3	47.9	48.7	48.6	39.9	39.2	45.6	45.7
(3) Average Credited Service	12.9	13.4	15.3	14.2	13.5	14.1	8.8	10.7	18.5	16.6	15.5	15.1	9.8	8.8	13.2	13.5
(4) Average Annual Earnings	43,702	44,205	49,747	47,998	57,405	58,680	40,355	40,554	52,940	52,448	62,105	56,707	47,075	46,280	48,680	48,789
Retirees, Disableds and Beneficiaries																
(1) Number	364	363	28	29	133	129	57	52	76	77	97	90	13	12	768	752
(2) Average Age	69.8	69.7	68.7	67.4	64.7	64.9	70.7	72.1	74.6	73.9	67.6	67.3	64.0	63.5	69.0	69.0
(3) Average Monthly Pension Benefit	1,578	1,559	2,099	2,062	2,447	2,359	1,601	1,461	1,505	1,500	1,250	1,158	1,771	1,878	1,704	1,660
Vested Terminations (vested at time of termination, not refunded contributions or commenced benefit)																
(1) Number	57	60	4	4	11	11	4	7	10	10	56	58	1	1	143	151
(2) Average Age	50.6	50.5	40.1	39.1	45.8	45.4	49.3	51.2	52.0	50.9	50.4	50.2	30.5	29.5	49.8	49.6
(3) Average Monthly Pension Benefit	1,090	1,062	1,264	1,264	1,340	1,558	506	564	1,461	1,381	944	1,028	932	932	1,066	1,088
Total Number of Members	711	698	62	62	290	283	169	163	158	164	210	211	36	35	1636	1616

Section 5.2 - Age and Service Distribution of Active Members as of December 31, 2017

Total

Attained Age		0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total
15-19	Number	2	0	0	0	0	0	0	0	2
	Total Salary	62,947	0	0	0	0	0	0	0	62,947
	Average Salary	31,474	0	0	0	0	0	0	0	31,474
20-24	Number	36	0	0	0	0	0	0	0	36
	Total Salary	1,153,016	0	0	0	0	0	0	0	1,153,016
	Average Salary	32,028	0	0	0	0	0	0	0	32,028
25-29	Number	42	9	2	0	0	0	0	0	53
	Total Salary	1,591,092	355,563	93,822	0	0	0	0	0	2,040,477
	Average Salary	37,883	39,507	46,911	0	0	0	0	0	38,500
30-34	Number	15	17	14	0	0	0	0	0	46
	Total Salary	591,717	756,341	685,400	0	0	0	0	0	2,033,458
	Average Salary	39,448	44,491	48,957	0	0	0	0	0	44,206
35-39	Number	19	14	25	23	2	0	0	0	83
	Total Salary	697,012	649,733	1,402,282	1,335,918	93,096	0	0	0	4,178,041
	Average Salary	36,685	46,410	56,091	58,083	46,548	0	0	0	50,338
40-44	Number	10	17	14	40	21	1	0	0	103
	Total Salary	365,471	829,192	753,156	2,275,734	1,192,843	91,520	0	0	5,507,916
	Average Salary	36,547	48,776	53,797	56,893	56,802	91,520	0	0	53,475
45-49	Number	20	13	13	22	29	14	0	0	111
	Total Salary	619,961	556,000	829,108	1,375,877	1,747,231	921,032	0	0	6,049,209
	Average Salary	30,998	42,769	63,778	62,540	60,249	65,788	0	0	54,497
50-54	Number	13	22	5	28	19	24	18	1	130
	Total Salary	531,379	944,656	175,630	1,378,826	1,068,043	1,381,622	906,608	37,555	6,424,319
	Average Salary	40,875	42,939	35,126	49,244	56,213	57,568	50,367	37,555	49,418
55-59	Number	9	13	9	22	18	14	7	4	96
	Total Salary	382,889	433,554	363,436	1,068,738	893,803	817,744	413,503	295,417	4,669,084
	Average Salary	42,543	33,350	40,382	48,579	49,656	58,410	59,072	73,854	48,636
60-64	Number	4	10	7	10	8	5	2	2	48
	Total Salary	95,067	474,611	328,225	493,518	469,951	365,430	104,307	99,730	2,430,839
	Average Salary	23,767	47,461	46,889	49,352	58,744	73,086	52,154	49,865	50,642
65-69	Number	0	6	2	0	1	3	0	0	12
	Total Salary	0	169,110	95,466	0	38,373	173,834	0	0	476,783
	Average Salary	0	28,185	47,733	0	38,373	57,945	0	0	39,732
70+	Number	1	2	1	0	1	0	0	0	5
	Total Salary	14,110	96,359	61,355	0	94,797	0	0	0	266,621
	Average Salary	14,110	48,180	61,355	0	94,797	0	0	0	53,324
TOTAL	Number	171	123	92	145	99	61	27	7	725
	Total Salary	6,104,661	5,265,119	4,787,880	7,928,611	5,598,137	3,751,182	1,424,418	432,702	35,292,710
	Average Salary	35,700	42,806	52,042	54,680	56,547	61,495	52,756	61,815	48,680

Section 5.2 - Age and Service Distribution of Active Members as of December 31, 2017 (continued)

General County

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	26,927	0	0	0	0	0	0	0	26,927
	Average Salary	26,927	0	0	0	0	0	0	0	26,927
20-24	Number	14	0	0	0	0	0	0	0	14
	Total Salary	399,017	0	0	0	0	0	0	0	399,017
	Average Salary	28,501	0	0	0	0	0	0	0	28,501
25-29	Number	19	3	2	0	0	0	0	0	24
	Total Salary	622,007	92,024	93,822	0	0	0	0	0	807,853
	Average Salary	32,737	30,675	46,911	0	0	0	0	0	33,661
30-34	Number	4	4	4	0	0	0	0	0	12
	Total Salary	161,254	148,728	140,966	0	0	0	0	0	450,948
	Average Salary	40,314	37,182	35,242	0	0	0	0	0	37,579
35-39	Number	10	5	10	9	1	0	0	0	35
	Total Salary	331,018	195,064	546,641	458,063	37,658	0	0	0	1,568,444
	Average Salary	33,102	39,013	54,664	50,896	37,658	0	0	0	44,813
40-44	Number	6	7	7	12	4	0	0	0	36
	Total Salary	199,266	313,785	357,900	613,079	165,957	0	0	0	1,649,987
	Average Salary	33,211	44,826	51,129	51,090	41,489	0	0	0	45,833
45-49	Number	13	7	2	3	10	5	0	0	40
	Total Salary	374,537	263,139	116,979	148,790	566,334	299,225	0	0	1,769,004
	Average Salary	28,811	37,591	58,490	49,597	56,633	59,845	0	0	44,225
50-54	Number	7	5	4	11	6	8	8	1	50
	Total Salary	270,131	186,341	163,258	516,568	372,188	408,280	348,865	37,555	2,303,186
	Average Salary	38,590	37,268	40,815	46,961	62,031	51,035	43,608	37,555	46,064
55-59	Number	2	5	5	7	12	5	4	3	43
	Total Salary	60,960	171,797	162,207	301,853	583,951	352,112	269,656	187,631	2,090,167
	Average Salary	30,480	34,359	32,441	43,122	48,663	70,422	67,414	62,544	48,609
60-64	Number	3	6	3	5	5	3	2	1	28
	Total Salary	66,176	200,082	151,867	244,973	258,434	223,437	104,307	29,603	1,278,879
	Average Salary	22,059	33,347	50,622	48,995	51,687	74,479	52,154	29,603	45,674
65-69	Number	0	1	1	0	1	1	0	0	4
	Total Salary	0	14,110	56,654	0	38,373	45,724	0	0	154,861
	Average Salary	0	14,110	56,654	0	38,373	45,724	0	0	38,715
70+	Number	1	1	0	0	1	0	0	0	3
	Total Salary	14,110	65,359	0	0	94,797	0	0	0	174,266
	Average Salary	14,110	65,359	0	0	94,797	0	0	0	58,089
TOTAL	Number	80	44	38	47	40	22	14	5	290
	Total Salary	2,525,403	1,650,429	1,790,294	2,283,326	2,117,692	1,328,778	722,828	254,789	12,673,539
	Average Salary	31,568	37,510	47,113	48,581	52,942	60,399	51,631	50,958	43,702

Section 5.2 - Age and Service Distribution of Active Members as of December 31, 2017 (continued)

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	4	0	0	0	0	0	0	0	4
	Total Salary	149,971	0	0	0	0	0	0	0	149,971
	Average Salary	37,493	0	0	0	0	0	0	0	37,493
25-29	Number	2	1	0	0	0	0	0	0	3
	Total Salary	74,278	44,102	0	0	0	0	0	0	118,380
	Average Salary	37,139	44,102	0	0	0	0	0	0	39,460
30-34	Number	0	2	1	0	0	0	0	0	3
	Total Salary	0	106,938	46,563	0	0	0	0	0	153,501
	Average Salary	0	53,469	46,563	0	0	0	0	0	51,167
35-39	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
40-44	Number	2	1	0	2	1	1	0	0	7
	Total Salary	109,738	48,792	0	124,706	45,127	91,520	0	0	419,883
	Average Salary	54,869	48,792	0	62,353	45,127	91,520	0	0	59,983
45-49	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
50-54	Number	0	0	0	1	0	4	2	0	7
	Total Salary	0	0	0	44,061	0	201,391	117,218	0	362,670
	Average Salary	0	0	0	44,061	0	50,348	58,609	0	51,810
55-59	Number	0	0	0	2	1	2	1	0	6
	Total Salary	0	0	0	95,720	49,875	95,253	47,149	0	287,997
	Average Salary	0	0	0	47,860	49,875	47,627	47,149	0	48,000
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	8	4	1	5	2	7	3	0	30
	Total Salary	333,987	199,832	46,563	264,487	95,002	388,164	164,367	0	1,492,402
	Average Salary	41,748	49,958	46,563	52,897	47,501	55,452	54,789	0	49,747

Section 5.2 - Age and Service Distribution of Active Members as of December 31, 2017 (continued)

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	36,020	0	0	0	0	0	0	0	36,020
	Average Salary	36,020	0	0	0	0	0	0	0	36,020
20-24	Number	14	0	0	0	0	0	0	0	14
	Total Salary	491,271	0	0	0	0	0	0	0	491,271
	Average Salary	35,091	0	0	0	0	0	0	0	35,091
25-29	Number	11	2	0	0	0	0	0	0	13
	Total Salary	518,744	111,569	0	0	0	0	0	0	630,313
	Average Salary	47,159	55,785	0	0	0	0	0	0	48,486
30-34	Number	7	2	4	0	0	0	0	0	13
	Total Salary	309,264	104,975	262,733	0	0	0	0	0	676,972
	Average Salary	44,181	52,488	65,683	0	0	0	0	0	52,075
35-39	Number	6	2	6	10	1	0	0	0	25
	Total Salary	262,806	102,914	381,175	683,840	55,438	0	0	0	1,486,173
	Average Salary	43,801	51,457	63,529	68,384	55,438	0	0	0	59,447
40-44	Number	0	3	1	18	13	0	0	0	35
	Total Salary	0	148,315	64,028	1,141,642	833,829	0	0	0	2,187,814
	Average Salary	0	49,438	64,028	63,425	64,141	0	0	0	62,509
45-49	Number	1	1	3	8	9	7	0	0	29
	Total Salary	33,383	47,860	164,589	551,699	563,970	511,090	0	0	1,872,591
	Average Salary	33,383	47,860	54,863	68,962	62,663	73,013	0	0	64,572
50-54	Number	0	0	0	2	7	2	0	0	11
	Total Salary	0	0	0	105,799	429,546	170,493	0	0	705,838
	Average Salary	0	0	0	52,900	61,364	85,247	0	0	64,167
55-59	Number	0	0	0	2	2	0	0	0	4
	Total Salary	0	0	0	111,698	106,272	0	0	0	217,970
	Average Salary	0	0	0	55,849	53,136	0	0	0	54,493
60-64	Number	0	0	0	0	1	0	0	0	1
	Total Salary	0	0	0	0	76,190	0	0	0	76,190
	Average Salary	0	0	0	0	76,190	0	0	0	76,190
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	40	10	14	40	33	9	0	0	146
	Total Salary	1,651,488	515,633	872,525	2,594,678	2,065,245	681,583	0	0	8,381,152
	Average Salary	41,287	51,563	62,323	64,867	62,583	75,731	0	0	57,405

Section 5.2 - Age and Service Distribution of Active Members as of December 31, 2017 (continued)

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	112,757	0	0	0	0	0	0	0	112,757
	Average Salary	28,189	0	0	0	0	0	0	0	28,189
25-29	Number	5	2	0	0	0	0	0	0	7
	Total Salary	177,780	62,242	0	0	0	0	0	0	240,022
	Average Salary	35,556	31,121	0	0	0	0	0	0	34,289
30-34	Number	3	5	4	0	0	0	0	0	12
	Total Salary	81,688	216,793	192,389	0	0	0	0	0	490,870
	Average Salary	27,229	43,359	48,097	0	0	0	0	0	40,906
35-39	Number	1	2	3	1	0	0	0	0	7
	Total Salary	33,424	89,509	162,334	62,188	0	0	0	0	347,455
	Average Salary	33,424	44,755	54,111	62,188	0	0	0	0	49,636
40-44	Number	2	2	1	0	0	0	0	0	5
	Total Salary	56,468	77,254	53,877	0	0	0	0	0	187,599
	Average Salary	28,234	38,627	53,877	0	0	0	0	0	37,520
45-49	Number	3	2	3	2	1	0	0	0	11
	Total Salary	83,845	81,448	129,905	117,512	62,685	0	0	0	475,395
	Average Salary	27,948	40,724	43,302	58,756	62,685	0	0	0	43,218
50-54	Number	6	11	0	3	0	3	0	0	23
	Total Salary	261,248	361,116	0	139,449	0	142,773	0	0	904,586
	Average Salary	43,541	32,829	0	46,483	0	47,591	0	0	39,330
55-59	Number	3	8	2	4	0	1	2	1	21
	Total Salary	121,810	261,758	66,194	177,102	0	59,697	96,698	107,786	891,045
	Average Salary	40,603	32,720	33,097	44,276	0	59,697	48,349	107,786	42,431
60-64	Number	1	3	2	3	0	0	0	1	10
	Total Salary	28,891	93,000	82,581	151,423	0	0	0	70,127	426,022
	Average Salary	28,891	31,000	41,291	50,474	0	0	0	70,127	42,602
65-69	Number	0	5	1	0	0	1	0	0	7
	Total Salary	0	155,000	38,813	0	0	57,760	0	0	251,573
	Average Salary	0	31,000	38,813	0	0	57,760	0	0	35,939
70+	Number	0	1	0	0	0	0	0	0	1
	Total Salary	0	31,000	0	0	0	0	0	0	31,000
	Average Salary	0	31,000	0	0	0	0	0	0	31,000
TOTAL	Number	28	41	16	13	1	5	2	2	108
	Total Salary	957,911	1,429,120	726,093	647,674	62,685	260,230	96,698	177,913	4,358,324
	Average Salary	34,211	34,857	45,381	49,821	62,685	52,046	48,349	88,957	40,355

Section 5.2 - Age and Service Distribution of Active Members as of December 31, 2017 (continued)

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	3	0	0	0	0	0	0	0	3
	Total Salary	123,425	0	0	0	0	0	0	0	123,425
	Average Salary	41,142	0	0	0	0	0	0	0	41,142
30-34	Number	0	0	1	0	0	0	0	0	1
	Total Salary	0	0	42,749	0	0	0	0	0	42,749
	Average Salary	0	0	42,749	0	0	0	0	0	42,749
35-39	Number	0	0	0	2	0	0	0	0	2
	Total Salary	0	0	0	96,335	0	0	0	0	96,335
	Average Salary	0	0	0	48,168	0	0	0	0	48,168
40-44	Number	0	1	3	4	1	0	0	0	9
	Total Salary	0	78,000	145,914	215,869	47,996	0	0	0	487,779
	Average Salary	0	78,000	48,638	53,967	47,996	0	0	0	54,198
45-49	Number	1	1	2	3	6	1	0	0	14
	Total Salary	44,203	48,489	137,039	152,299	339,169	60,928	0	0	782,127
	Average Salary	44,203	48,489	68,520	50,766	56,528	60,928	0	0	55,866
50-54	Number	0	0	0	8	6	4	5	0	23
	Total Salary	0	0	0	385,326	266,309	229,921	272,330	0	1,153,886
	Average Salary	0	0	0	48,166	44,385	57,480	54,466	0	50,169
55-59	Number	3	0	1	6	2	1	0	0	13
	Total Salary	156,119	0	52,168	346,673	101,589	49,364	0	0	705,913
	Average Salary	52,040	0	52,168	57,779	50,795	49,364	0	0	54,301
60-64	Number	0	0	1	2	2	2	0	0	7
	Total Salary	0	0	44,995	97,122	135,327	141,994	0	0	419,438
	Average Salary	0	0	44,995	48,561	67,664	70,997	0	0	59,920
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	7	2	8	25	17	8	5	0	72
	Total Salary	323,747	126,489	422,865	1,293,624	890,390	482,207	272,330	0	3,811,652
	Average Salary	46,250	63,245	52,858	51,745	52,376	60,276	54,466	0	52,940

Section 5.2 - Age and Service Distribution of Active Members as of December 31, 2017 (continued)

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	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	2	0	0	0	0	0	0	2
	Total Salary	0	101,109	0	0	0	0	0	0	101,109
	Average Salary	0	50,555	0	0	0	0	0	0	50,555
35-39	Number	0	3	4	1	0	0	0	0	8
	Total Salary	0	175,296	199,305	35,492	0	0	0	0	410,093
	Average Salary	0	58,432	49,826	35,492	0	0	0	0	51,262
40-44	Number	0	2	2	3	1	0	0	0	8
	Total Salary	0	116,452	131,437	134,068	37,371	0	0	0	419,328
	Average Salary	0	58,226	65,719	44,689	37,371	0	0	0	52,416
45-49	Number	1	1	2	4	2	1	0	0	11
	Total Salary	44,000	58,496	221,840	295,564	159,727	49,788	0	0	829,415
	Average Salary	44,000	58,496	110,920	73,891	79,864	49,788	0	0	75,401
50-54	Number	0	6	1	3	0	3	3	0	16
	Total Salary	0	397,200	12,372	187,623	0	228,764	168,195	0	994,154
	Average Salary	0	66,200	12,372	62,541	0	76,255	56,065	0	62,135
55-59	Number	1	0	1	1	0	5	0	0	8
	Total Salary	44,000	0	82,868	35,693	0	261,318	0	0	423,879
	Average Salary	44,000	0	82,868	35,693	0	52,264	0	0	52,985
60-64	Number	0	1	1	0	0	0	0	0	2
	Total Salary	0	181,529	48,782	0	0	0	0	0	230,311
	Average Salary	0	181,529	48,782	0	0	0	0	0	115,156
65-69	Number	0	0	0	0	0	1	0	0	1
	Total Salary	0	0	0	0	0	70,349	0	0	70,349
	Average Salary	0	0	0	0	0	70,349	0	0	70,349
70+	Number	0	0	1	0	0	0	0	0	1
	Total Salary	0	0	61,355	0	0	0	0	0	61,355
	Average Salary	0	0	61,355	0	0	0	0	0	61,355
TOTAL	Number	2	15	12	12	3	10	3	0	57
	Total Salary	88,000	1,030,082	757,959	688,440	197,098	610,219	168,195	0	3,539,993
	Average Salary	44,000	68,672	63,163	57,370	65,699	61,022	56,065	0	62,105

Section 5.2 - Age and Service Distribution of Active Members as of December 31, 2017 (continued)

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	1	0	0	0	0	0	0	3
	Total Salary	74,856	45,626	0	0	0	0	0	0	120,482
	Average Salary	37,428	45,626	0	0	0	0	0	0	40,161
30-34	Number	1	2	0	0	0	0	0	0	3
	Total Salary	39,511	77,799	0	0	0	0	0	0	117,310
	Average Salary	39,511	38,900	0	0	0	0	0	0	39,103
35-39	Number	2	2	2	0	0	0	0	0	6
	Total Salary	69,765	86,951	112,828	0	0	0	0	0	269,544
	Average Salary	34,883	43,476	56,414	0	0	0	0	0	44,924
40-44	Number	0	1	0	1	1	0	0	0	3
	Total Salary	0	46,594	0	46,371	62,562	0	0	0	155,527
	Average Salary	0	46,594	0	46,371	62,562	0	0	0	51,842
45-49	Number	1	1	1	2	1	0	0	0	6
	Total Salary	39,993	56,568	58,756	110,012	55,347	0	0	0	320,676
	Average Salary	39,993	56,568	58,756	55,006	55,347	0	0	0	53,446
50-54	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
55-59	Number	0	0	0	0	1	0	0	0	1
	Total Salary	0	0	0	0	52,116	0	0	0	52,116
	Average Salary	0	0	0	0	52,116	0	0	0	52,116
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	6	7	3	3	3	0	0	0	22
	Total Salary	224,125	313,538	171,584	156,383	170,025	0	0	0	1,035,655
	Average Salary	37,354	44,791	57,195	52,128	56,675	0	0	0	47,075

Section 5.3 - Member Data Reconciliation

	Active Members	With Deferred Benefits	Inactive Members		Beneficiaries	Total
			Retired Members	Disabled Members		
As of December 31, 2016	713	151	620	50	82	1,616
Age/Service Retirements	(23)	(11)	33		1	0
Disability Retirements	(2)			2		0
Deaths Without Beneficiary	(1)	(2)	(14)	(1)	(5)	(23)
Deaths With Beneficiary			(7)		7	0
Non-vested Terminations	(12)					(12)
Vested Terminations	(6)	6				0
Rehires	1	(1)				0
Cash-outs	(9)	(1)				(10)
Expiration of Benefits						0
Data Corrections						0
Transfers Out						0
Laid Off						0
Pick Ups		1				1
Net Change	(52)	(8)	12	1	3	(44)
New Entrants During the Year	64					64
As of December 31, 2017	725	143	632	51	85	1,636

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, 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	-0.1%
December 31, 2011	298	25	141	116	83	131	19	813	38,891,988	47,838	1.9%
December 31, 2012	289	27	140	113	74	108	20	771	37,587,747	48,752	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%
December 31, 2015	280	28	145	102	74	67	21	717	35,914,410	50,090	2.3%
December 31, 2016	275	29	143	104	77	63	22	713	34,786,368	48,789	-2.6%
December 31, 2017	290	30	146	108	72	57	22	725	35,292,710	48,680	-0.2%

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
December 31, 2015	62	1	10	8	9	59	1	150	1,883,411	12,556
December 31, 2016	60	4	11	7	10	58	1	151	1,970,828	13,052
December 31, 2017	57	4	11	4	10	56	1	143	1,828,575	12,787

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	30	21	9	0	12	2	7	0	9	
301 – 600	88	64	18	6	47	5	9	9	18	
601 – 900	92	67	16	9	50	4	9	13	16	
901 – 1,200	97	69	17	11	44	5	20	11	17	
1,201 – 1,500	81	66	8	7	47	5	9	12	8	
1,501 – 1,800	69	59	7	3	31	3	10	18	7	
1,801 – 2,100	75	63	3	9	42	2	10	18	3	
2,101 – 2,400	58	52	4	2	24	6	9	15	4	
2,401 – 2,700	43	39	2	2	19	2	5	15	2	
2,701 – 3,000	33	32	1	0	13	3	6	10	1	
3,001 – 3,300	19	19	0	0	9	0	3	7	0	
3,301 – 3,600	24	23	0	1	7	2	2	13	0	
3,601 – 3,900	19	19	0	0	9	1	1	8	0	
3,901 – 4,200	20	20	0	0	9	0	3	8	0	
Over \$4,200	20	19	0	1	9	1	3	7	0	
Totals	768	632	85	51	372	41	106	164	85	

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	2017	2016	2015
Age and Service			
(1) Number, Fiscal Year Start	620	656	647
(2) Net Change	12	(36) ¹	9
(3) Number, Fiscal Year End	632	620	656
(4) Average Current Age	69.1	69.0	69.1
(5) Average Monthly Pension Benefit	1,824	1,784	1,729
Surviving Spouse's Benefits			
(1) Number, Fiscal Year Start	82	19	11
(2) Net Change	3	63 ¹	8
(3) Number, Fiscal Year End	85	82	19
(4) Average Current Age	73.0	73.7	70.0
(5) Average Monthly Pension Benefit	1,000	942	1,046
Disabilities			
(1) Number, Fiscal Year Start	50	61	61
(2) Net Change	1	(11) ¹	0
(3) Number, Fiscal Year End	51	50	61
(4) Average Current Age	61.5	60.9	61.8
(5) Average Monthly Pension Benefit	1,383	1,302	1,147
Total			
(1) Number, Fiscal Year Start	752	736	719
(2) Net Change	16	16	17
(3) Number, Fiscal Year End	768	752	736
(4) Average Current Age	69.0	69.0	68.6
(5) Average Monthly Pension Benefit	1,704	1,660	1,663

¹ The status for 47 retirees and 10 disabled participants was changed to beneficiary.

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, 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	13,568,692	5.5%	19,384
December 31, 2014	33	718,532	14	66,374	719	14,120,850	4.8%	19,640
December 31, 2015	32	760,535	15	196,320	736	14,685,065	4.0%	19,953
December 31, 2016	38	642,654	22	348,793	752	14,978,926	2.0%	19,919
December 31, 2017	43	1,061,632	27	336,935	768	15,703,623	4.8%	20,447

Section 5.9 - Schedule of Benefit Payments

Attained Ages	Regular retirement & Survivor payment		Disability		Total	
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	1	7,196	0	0	1	7,196
45-49	0	0	0	0	0	0
50-54	1	13,230	2	69,609	3	82,839
55-59	20	819,803	11	217,260	31	1,037,063
60-64	50	1,762,847	12	230,488	62	1,993,335
65-69	152	3,396,958	8	120,839	160	3,517,797
70-74	195	4,026,995	9	122,762	204	4,149,757
75	120	2,249,465	5	49,371	125	2,298,836
76	24	412,440	0	0	24	412,440
77	16	232,507	0	0	16	232,507
78	17	288,714	0	0	17	288,714
79	14	274,053	3	28,285	17	302,338
80	10	172,594	1	7,845	11	180,439
81	13	212,488	0	0	13	212,488
82	13	90,637	0	0	13	90,637
83	7	94,433	0	0	7	94,433
84	14	163,509	0	0	14	163,509
85	3	49,560	0	0	3	49,560
86	11	157,539	0	0	11	157,539
87	7	112,195	0	0	7	112,195
88	7	108,991	0	0	7	108,991
89	2	21,135	0	0	2	21,135
90	8	91,674	0	0	8	91,674
91	0	0	0	0	0	0
92	3	35,304	0	0	3	35,304
93	4	18,559	0	0	4	18,559
94	1	4,978	0	0	1	4,978
95	1	21,468	0	0	1	21,468
96	0	0	0	0	0	0
97	2	13,946	0	0	2	13,946
98	1	3,946	0	0	1	3,946
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
Total	717	14,857,164	51	846,459	768	15,703,623

Section 5.9 - Schedule of Benefit Payments (continued)

Attained Ages	Inactive Members	
	No.	Estimated Annual Allowances
Under 30	0	0
30	1	11,178
31	0	0
32	0	0
33	0	0
34	3	29,246
35	0	0
36	1	10,917
37	4	37,030
38	3	30,548
39	3	37,418
40	6	75,316
41	5	75,245
42	2	36,550
43	4	72,220
44	6	56,386
45	8	118,345
46	5	60,975
47	5	74,501
48	2	61,503
49	8	89,544
50	7	123,445
51	5	40,455
52	7	43,874
53	7	83,600
54	7	107,011
55	11	148,745
56	11	114,146
57	5	86,215
58	7	82,490
59	9	99,701
60	1	21,971
61	0	0
62	0	0
63	0	0
64	0	0
65	0	0
66	0	0
67	0	0
68	0	0
Total	143	1,828,575

Section 6: Basis of the Actuarial Valuation

Section 6.1 – Brief Summary of Benefit Provisions

Eligibility	Amount
Regular Retirement	
General, Library, Road Commission, Mental Health, Sheriff's Office and Central Dispatch.	<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>
Deferred Retirement	
8 or more years of service	Computed as a regular retirement but based upon service and final average earnings at termination date.
Non-Duty Death-In-Service	
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.
Duty Death-In-Service	
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.
Non-Duty Disability	
10 or more years of service	Computed as a regular retirement.
Duty Disability	
No age or service requirements.	Computed as a regular retirement benefit but computed as if the member had at least 10 years of service.
Post-Retirement Increases	
<p>Automatic Cost of Living Adjustment: None</p> <p>13th Check: Please see Section 6.3</p>	
Member Contributions	
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	TPOAM Nurses	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	POAM/District Court Unit I	7	2.50%	3 yr.	3.00%	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.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	POAM 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	POAM Youth Center Supervisors	28	2.50%	3 yr.	3.00%	55/30 or 60/8	1/1/2011	1.50%	3 yr.	3.00%	60/8
General	POAM/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	TPOAM Family 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	COAM/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	COAM/Corrections Supv 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)			
Dispatchers	COAM/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	POAM/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

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
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	12/1/2014	2.00%	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	12/1/2014	2.00%	3 yr.	3.25%	55/30 or 60/8
Road Commission	Road Commission - Management	46	2.25%	3 yr.	3.25%	55/30 or 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	AFLCIO/County Agency	2	2.50%	3 yr.	3.00%	55/30 or 60/8	12/1/2014	1.50%	3 yr.	3.00%	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 13th 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	Employer	Employer	N/A	Employer
13th check Excess Reserve fund	Closed	Closed	Closed	N/A	Closed	N/A	Closed
Supplemental pension benefit contribution for 2017	\$32,500	\$6,250	\$10,000	\$0	\$0	N/A	\$1,250

*The Road Commission Excess Earnings Reserve Fund is no longer in existence and the Road Commission is now using general funds to fund the distribution of these benefits. Under Policy No. 2016-04, \$50,000 is to be taken each year from the general funds to fund the Post-Retirement Supplemental Benefits Distribution Program and evenly distributed to all Monroe County Road Commission retirees, regardless of the year they retired, their age, or how long they have been retired.

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, 2017 valuation the corridor is 20%.

Financing of Unfunded Actuarial Accrued Liabilities

Unfunded actuarial accrued liabilities are amortized over a 25-year layered amortization with 2% annual payment increases.

Actuarial Assumptions Used for the Valuation

The following assumptions were selected by the plan's actuary and adopted by the Board at its September 21, 2015 meeting. The assumptions are based on an experience study for the period January 1, 2010 to December 31, 2014.

Investment Return

(net of investment expenses).

7.00% rate of return for Funding (inflation assumption of 3.00% 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, 2015 valuation.

Section 6.4 - Description of Actuarial Methods and Valuation Procedures (continued)

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, Central Dispatch	Road Commission	Mental Health	General, Library, County Agency, Sheriff's Office, Central Dispatch	Road Commission	Mental Health
1	3.00%	2.50%	2.00%	2.00%	5.50%	5.00%	5.00%
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%	.50%	.50%	.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.

Section 6.4 - Description of Actuarial Methods and Valuation Procedures (continued)

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 and County 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 Expense Load

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.

Section 6.4 - Description of Actuarial Methods and Valuation Procedures (continued)

Rates of Separation from Active Employment before Retirement, Death or Disability

Member Ages	Years of Service	Percent of Active Members Separating During the Year		
		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%	0.6560%
45	0.3975%	0.4050%
50	0.7380%	0.5970%
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.

Section 6.4 - Description of Actuarial Methods and Valuation Procedures (continued)

Miscellaneous and Technical Assumptions

Marriage Assumption

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.

Pay Increase Timing

On the valuation date.

Decrement Timing

Decrements of all types are assumed to occur mid-year.

Eligibility Testing

Eligibility for benefits is determined using the age nearest birthday and the service nearest whole year on the anniversary of the valuation date.

Benefit Service

Exact fractional service is used to determine the amount of benefit payable.

Decrement Relativity

Decrement rates are used directly from the experience study, without adjustment for multiple decrement table effects.

Normal Form of Benefit

The assumed normal form of benefit is straight life form.

Benefit Loads

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.