



St. Clair County

Employees' Retirement System

December 31, 2017 Actuarial Valuation Report

Actuarial Certification	3
Executive Summary	5
Summary Results	5
Changes Since Prior Valuation and Key Notes	6
Assets and Liabilities	7
Present Value of Future Benefits	7
Funding Liabilities	8
Asset Information	9
Reconciliation of Gain/Loss	11
Contribution Requirements	12
Development of Recommended Contribution	12
Demographic Information	13
Participant Reconciliation	15
Plan Provisions	17
Actuarial Assumptions	20
Other Measurements	25
Asset Allocation by Group	26
Development of Recommended Contribution by Group	27
Amortization Bases	30
Demographic Information by Group	31
Plan Provisions by Group	38

At the request of the plan sponsor, this report summarizes the St. Clair County Employees' Retirement System valuation results as of December 31, 2017. The purpose of this report is to communicate the following results of the valuation:

- Funded Status;
- and Determine the Recommended Contribution as of December 31, 2017 for Fiscal Year beginning January 1, 2019;

This report has been prepared in accordance with the applicable Federal and State laws. Consequently, it may not be appropriate for other purposes. Please contact Nyhart prior to disclosing this report to any other party or relying on its content for any purpose other than that explained above. Failure to do so may result in misrepresentation or misinterpretation of this report.

The results in this report were prepared using information provided to us by other parties. The census information has been provided to us by the employer. Asset information has been provided to us by the County. We have reviewed the provided data for reasonableness when compared to prior information provided, but have not audited the data. Where relevant data may be missing, we have made assumptions we believe to be reasonable. We are not aware of any significant issues with and have relied on the data provided. Any errors in the data provided may result in a different result than those provided in this report. A summary of the data used in the valuation is included in this report.

The actuarial assumptions and methods were chosen by the Board. In our opinion, all actuarial assumptions and methods are individually reasonable and in combination represent our best estimate of anticipated experience of the plan. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

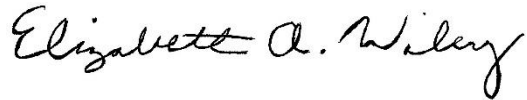
- plan experience differing from that anticipated by the economic or demographic assumptions;
- changes in economic or demographic assumptions;
- increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period);
and
- changes in plan provisions or applicable law.

We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement. This report has been prepared in accordance with generally accepted actuarial principles and practice.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

The undersigned are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States and are available for any questions.

Nyhart

A handwritten signature in cursive script that reads "Elizabeth A. Wiley".

Elizabeth A. Wiley, ASA, EA

A handwritten signature in cursive script that reads "Nick H. Meggos".

Nick H. Meggos, EA, FCA

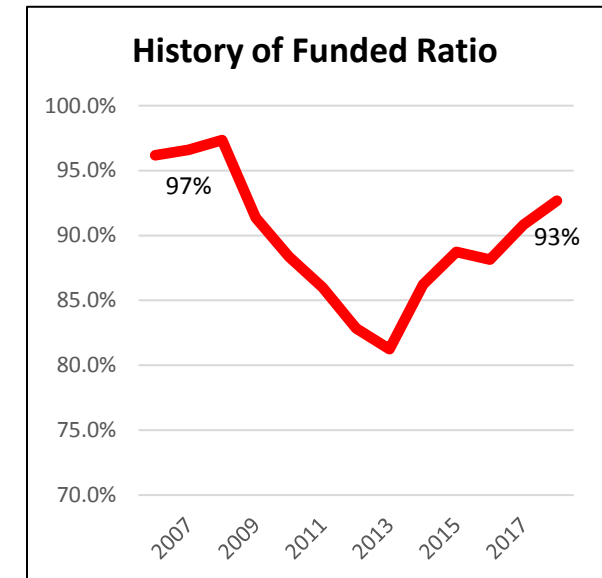
July 26, 2018

Date

Summary Results

The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay.

Valuation Date For Fiscal Year Beginning	December 31, 2016 January 1, 2018	December 31, 2017 January 1, 2019
Funded Status Measures		
Entry Age Accrued Liability	\$252,268,270	\$259,759,791
Actuarial Value of Assets	229,130,114	240,751,178
Unfunded Accrued Liability	\$23,138,156	\$19,008,613
Funded Percentage (AVA)	90.8%	92.7%
Funded percentage (MVA)	88.1%	93.0%
Cost Measures		
Recommended Contribution	\$5,396,056	\$5,174,822
Recommended Contribution (as a percentage of payroll)	15.1%	15.1%
Asset Performance		
Market Value of Assets (MVA)	\$222,271,940	\$241,595,039
Actuarial Value of Assets (AVA)	\$229,130,114	\$240,751,178
Actuarial Value/Market Value	103.1%	99.7%
Participant Information		
Active Participants	642	604
Terminated Vested Participants	173	152
Retirees, Beneficiaries, and Disabled Participants	704	733
Total	1,519	1,489
Expected Fiscal Year Payroll	\$35,708,838	\$34,265,366
Covered Payroll	\$36,811,921	\$35,236,433



Changes Since Prior Valuation and Key Notes

There have been no changes to the plan provisions since the last valuation.

The mortality table has been updated from the RP-2014 mortality table with generational improvements from 2006 based on the Social Security mortality improvement assumptions from the 2016 Trustees' Report to the RP-2014 mortality table with generational improvements from 2006 based on the Social Security mortality improvement assumptions from the 2017 Trustees' Report. This change resulted in a decrease in the Accrued Liability, Normal Cost, and Recommended Contribution.

The assumed administrative expenses for the Recommended Contribution have been updated from 0.2% of payroll to the preceding year's administrative expenses rounded up to the nearest \$10,000. Administrative expenses are assumed to be paid mid-year. Administrative expenses are allocated to each employer based on each employer's proportional share of the total actuarial value of assets. This change resulted in an increase to the Recommended Contribution.

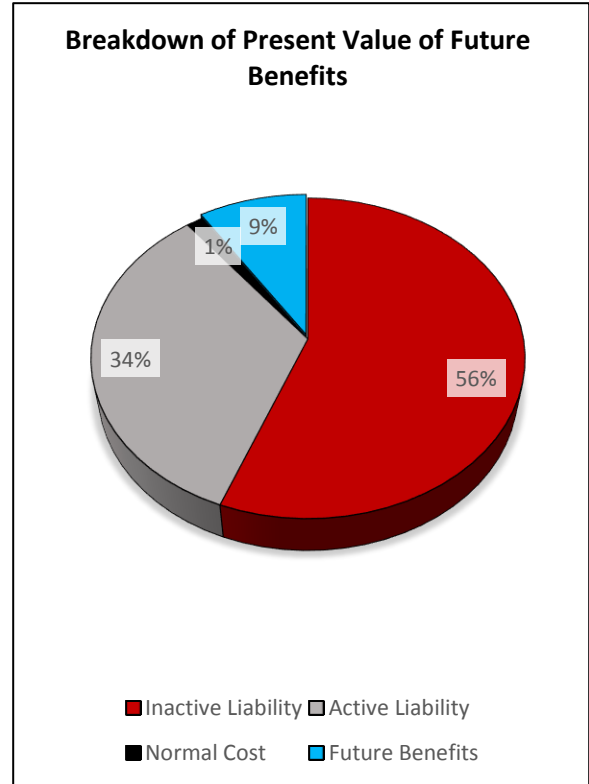
Present Value of Future Benefits

The Present Value of Future Benefits represents the future benefits payable to the existing participants.

December 31, 2017

Present Value of Future Benefits

Active participants	
Retirement	\$97,805,825
Disability	8,654,577
Death	1,364,998
Termination	20,164,928
Total active	<u>\$127,990,328</u>
Inactive participants	
Retired participants	\$141,536,147
Beneficiaries	10,301,001
Disabled participants	1,108,075
Terminated vested participants	9,255,948
Total inactive	<u>\$162,201,171</u>
Total	\$290,191,499
 Present value of future payrolls	 \$265,812,808



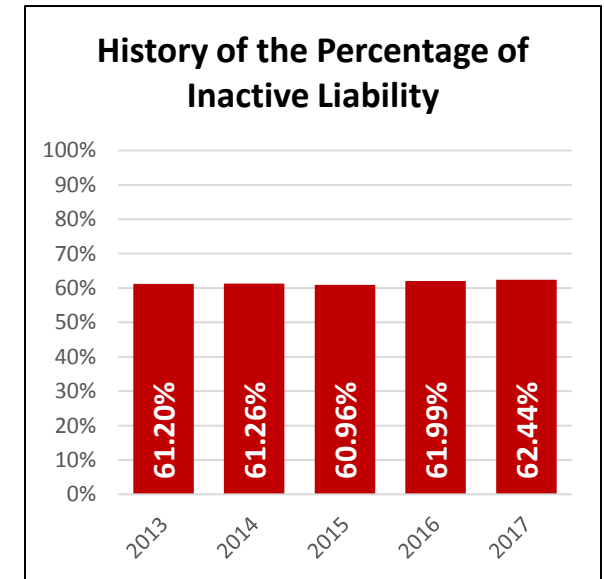
Entry Age Accrued Liability

The Funding Liability measures the present value of benefits earned as of the valuation date, using a specified set of actuarial assumptions.

December 31, 2017

Funding Liabilities

Active participants	
Retirement	\$80,220,430
Disability	6,133,403
Death	1,056,874
Termination	10,147,913
Total Active	\$97,558,620
Inactive participants	
Retired participants	\$141,536,147
Beneficiaries	10,301,001
Disabled participants	1,108,075
Terminated vested participants	9,255,948
Total Inactive	\$162,201,171
Total	\$259,759,791
 Normal Cost	 \$4,080,653



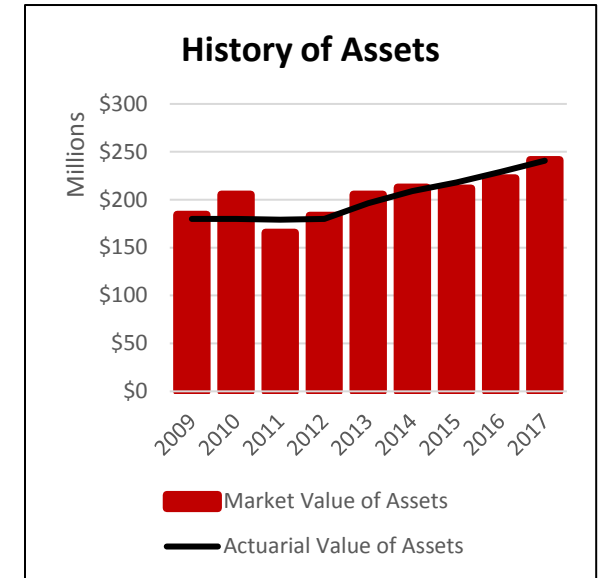
Asset Information

The amount of assets backing the pension promise is the most significant driver of volatility and future costs within a pension plan. The investment performance of the assets directly offsets the ultimate cost.

December 31, 2017

Market Value Reconciliation

Market value of assets, beginning of prior year	\$222,271,940
Contributions	
Employer contributions	6,392,847
Member contributions	1,888,806
Total	8,281,653
Investment income	26,077,016
Benefit payments	(14,868,026)
Administrative expenses	(167,544)
Market value of asset, beginning of current year	\$241,595,039
Return on Market Value	11.9%
Market value of assets available for pension benefits	\$241,595,039
Actuarial value of assets	
Value at beginning of current year	\$240,751,178



Asset Information (continued) - 20% Phase in

Plan Assets are used to develop funded percentages and contribution requirements.

December 31, 2017

1.	Expected actuarial value of assets		
	(a) Actuarial value of assets, beginning of prior year		\$229,130,114
	(b) Contributions		8,281,653
	(c) Benefit payments		(14,868,026)
	(d) Expenses		(167,544)
	(e) Expected return		16,931,487
	(f) Expected actuarial value of assets, beginning of current year		\$239,307,684
2.	Market value of assets, beginning of current year		\$241,595,039
3.	Actual return on market value		\$26,077,016
4.	Amount subject to phase in [(3)-(1e)]		\$9,145,529
5.	Phase in of asset gain/(loss)		
	(a) Current year (20% x \$9,145,529)		\$1,829,106
	(b) First prior year (20% x \$850,184)		170,037
	(c) Second prior year (20% x (\$12,058,774))		(2,411,755)
	(d) Third prior year (20% x (\$3,126,900))		(625,380)
	(e) Fourth prior year (20% x \$12,407,429)		2,481,486
	(f) Total phase-in		\$1,443,494
6.	Preliminary actuarial value of assets, beginning of current year [(1f)+(5f)]		\$240,751,178
7.	80% Market value of assets		\$193,276,031
8.	120% Market value of assets		\$289,914,047
9.	Adjusted actuarial value of assets		\$240,751,178
10.	Final actuarial value of assets (9)		\$240,751,178
11.	Return on actuarial value of assets		8.1%



Reconciliation of Gain/Loss

December 31, 2017

Liability (gain)/loss

Actuarial liability, beginning of prior year	\$252,268,270
Normal cost	4,196,619
Benefit payments	(14,868,026)
Expected Interest	18,687,395
Change in actuarial assumptions	(324,260)
Expected actuarial liability, beginning of current year	\$259,959,998
Actual actuarial liability	\$259,759,791
Liability (gain)/loss	\$(200,207)

Asset (gain)/loss

Actuarial value of assets, beginning of prior year	\$229,130,114
Contributions	8,281,653
Benefit payments and expenses	(15,035,570)
Expected investment return	16,931,487
Expected actuarial value of assets, beginning of current year	\$239,307,684
Actual actuarial value of assets, beginning of current year	\$240,751,178
Asset (gain)/loss	\$(1,443,494)

Total (gain)/loss

\$(1,643,701)

Development of Recommended Contribution

The recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

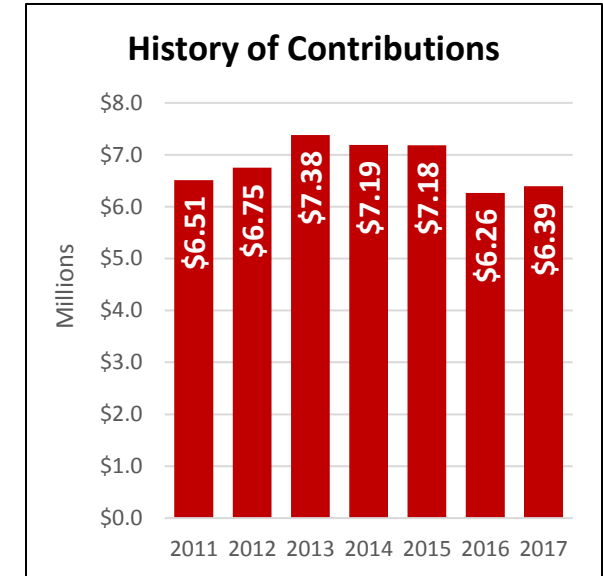
December 31, 2017

Funded Position

1. Entry age accrued liability	\$259,759,791
2. Actuarial value of assets	\$240,751,178
3. Unfunded actuarial accrued liability (UAAL)	\$19,008,613
4. Funded Ratio, (2) / (1)	92.7%

Employer Contributions

5. Normal Cost	
(a) Total normal cost	\$4,080,653
(b) Expected participant contributions	1,800,640
(c) Net normal cost	\$2,280,013
6. Administrative expenses	\$170,000
7. Amortization of UAAL	2,198,854
8. Applicable interest	525,955
9. Total recommended contribution	\$5,174,822
10. Estimated fiscal year payroll	\$34,265,366
11. Recommended contribution as a percentage of estimated payroll	15.1%



Demographic Information

The foundation of a reliable actuarial report is the participant information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

December 31, 2017

Participant Counts

Active Participants	604
Retired Participants	629
Beneficiaries	95
Disabled Participants	9
Terminated Vested Participants	<u>152</u>
Total Participants	1,489

Active Participant Demographics

Average Age	48.6
Average Service	14.8
Average Compensation	\$56,587
Estimated Fiscal Year Payroll	\$34,265,366
Covered Payroll	\$35,236,433

Demographic Information (continued)

December 31, 2017

Retiree Statistics

Average Age	69.6
Average Monthly Benefit	\$1,772

Beneficiary Statistics

Average Age	77.0
Average Monthly Benefit	\$1,093

Disabled Participants Statistics

Average Age	63.8
Average Monthly Benefit	\$953

Terminated Participants Statistics

Average Age	49.6
Number with Monthly Benefits	122
Average Monthly Benefit	\$953

Participant Reconciliation

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Totals
Prior Year	642	173	8	599	97	1,519
Active						
To Terminated Vested	(12)	12	0	0	0	0
To Retired	(24)	0	0	24	0	0
To Disabled	(1)	0	1	0	0	0
To Lump Sum Cash-Out	(7)	0	0	0	0	(7)
Terminated Vested						
To Active	1	(1)	0	0	0	0
To Disabled	0	0	0	0	0	0
To Retired	0	(11)	0	11	0	0
To Lump Sum Cash-Out	0	(23)	0	0	0	(23)
To Death	0	0	0	0	0	0
Disabled						
To Death	0	0	0	0	0	0
Retired						
To Death	0	0	0	(6)	0	(6)
Survivor						
To Death	0	0	0	0	(4)	(4)
To Lump Sum Cash-Out	0	0	0	0	(1)	(1)
Additions	5	2	0	1	3	11
Departures	0	0	0	0	0	0
Current Year	604	152	9	629	95	1,489

Active Participant Schedule

Active participant information grouped based on age and service.

	Years of Service										Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	
Under 25	1	3									4
25 to 29	1	7	1								9
30 to 34	1	11	16	14							42
35 to 39		6	11	42	4						63
40 to 44	2	8	17	29	33	4					93
45 to 49		3	15	36	41	26	6	2			129
50 to 54		6	11	27	20	27	9	7			107
55 to 59		2	6	22	28	13	3	4	1		79
60 to 64		4	3	15	24	6	4	3	2		61
65 to 69		1	2		3		1	1	1		9
70 & up				1	4	1			2		8
Total	5	51	82	186	157	77	23	17	6	0	604

Name of plan

St. Clair County Employees' Retirement System

Effective date

The plan was originally effective as of January 1, 1964.

Participation

A county policeman, sheriff, or deputy sheriff who agrees to make required participant contributions shall become a participant on his/her date of hire.

Plan is closed to new hires for most of General County employees, Road Commission, and Mental Health.

Benefits

Normal Retirement

Eligibility

Sheriffs	25 years of service regardless of age.
Others	Age 55 with 25 years of service.
All	Age 60 with 8 years of service. When age plus service equals 80 and service is at least 25 years.

Benefit

The pension payable for modified plan members is determined as the Final Average Compensation (FAC) multiplied by:

<u>Years of Service</u>	<u>Annual Multiplier</u>	<u>Annual Application</u>
1-10	1.75%	Accumulative
11-19	2.00%	Accumulative
20-24	2.00%	Retroactive to 1st Year
25-29	2.40%	Retroactive to 1st Year
	(2.50% for Sheriff Department Supervisors)	

The pension payable for original plan members is determined as the FAC multiplied by total service and 2.00%.

Final Average Compensation (FAC)

Highest 3 years out of last 10 (highest 5 years out of last 10 for Mental Health; Friend of the Court and Road Commission is the highest 3 years out of the last 5). Base pay only for certain General County and Sheriff's Department members.

Please see the appendix for applicable provisions by group

Non-Duty Disability Retirement

Eligibility	10 or more years of service
Benefit	Computed as a regular retirement, offsets apply.

Duty Disability Retirement

Eligibility	
Sheriffs	10 years of service
Others	No age or service requirements. Must be in receipt of Worker's Compensation payments.
Benefit	
Sheriffs	50% of compensation at the time of disability and offsets apply.
Others	Computed as a regular retirement. Upon termination of Worker's Compensation payments, additional service credit is granted and benefit is recomputed. Offsets apply.

Termination Benefit

Participants become vested in their accrued benefit after 8 years of service.

Supplemental Payments to Retirees Age 65 and Older

If a retiree had less than 20 years of service at retirement, an annual payment of \$14.00 per month will be made for the life of the retiree. For members with 20 or more years of service at retirement, an annual payment of \$16.00 per month.

Post-Retirement Life Insurance

The Retirement System provides \$3,500 of life insurance to retirees.

Credited Service

Service is credited for employees working more than 1,000 hours (nearest 1/12th). Full year of service is granted for more than 1,950 hours and partial credit is provided for hours worked between 1,000 and 1,950.

Optional forms of payment

A participant may choose to receive distributable benefits in an actuarially equivalent alternative form of benefit as follows.

- a monthly benefit payable for the participant's lifetime; or
- a monthly benefit payable for the participant's lifetime with a guarantee that the remainder, if any, of ether 120 monthly payments will be made to the participant's beneficiary following his death; or
- a monthly benefit payable for the participant's lifetime with 50% or 100% of such benefit continued to a surviving contingent annuitant following his death; or
- a monthly benefit payable for the participant's lifetime with a pop-up option with 50% or 100% of such benefit continued to a surviving contingent annuitant following his death

Employee Contributions

As a condition for participation, an employee must agree to contribute 5% of his compensation to the plan (8% for Road Commission).

Plan Provisions Not Included

We are not aware of any plan provisions not included in the valuation

Adjustments Made for Subsequent Events

We are not aware of any event following the measurement date and prior to the date of this report that would materially impact the results of this report.

Except where otherwise indicated, the following assumptions were selected by the plan sponsor with the concurrence of the actuary. Prescribed assumptions are based on the requirements of the relevant law, the Internal Revenue Code, and applicable regulation. The actuary was not able to evaluate the prescribed assumptions for reasonableness for the purpose of the measurement.

Valuation Date	December 31, 2017
Participant and Asset Information Collected as of	December 31, 2017
Cost Method (CO)	Individual Entry Age Level Percent of Pay Cost Method
Amortization Method (CO)	
Mental Health	18 year level dollar amortization of Unfunded Actuarial Accrued Liability
General County	15 year level dollar closed amortization of Unfunded Actuarial Accrued Liability
Road Commission	15 year level dollar closed amortization of Unfunded Actuarial Accrued Liability
	Each subsequent year after an employer who has closed participation reaches a 15 year amortization period of their unfunded accrued liability, a new amortization base for any assumption changes, plan changes, or actuarial gain/loss will be set up which will be fully amortized in 15 years.
Asset Valuation Method	20% Phase-In Method: Expected actuarial value of assets, adjusted by 20% of the asset gain/(loss from the previous five years. Where the asset gain/(loss) for a particular year is defined as the difference between the actual market value return and the expected actuarial value return. This method was first used for the December 31, 2005 valuation.
Interest Rates (CO)	7.50%
	The interest rate is the expected long term rate of return on assets. This assumption is supported by the investment mix of the plan assets as of 12/31/2017.

Retirement Rates (FE)

Age	General*	Road Commission	Sheriff**	Service	Sheriff**
50	15.0%	25.0%		25	25.0%
51	15.0%	25.0%		26	25.0%
52	15.0%	25.0%		27	25.0%
53	15.0%	25.0%		28	25.0%
54	15.0%	25.0%		29	25.0%
55	15.0%	25.0%		30+	100.0%
56	15.0%	25.0%			
57	15.0%	25.0%			
58	15.0%	25.0%			
59	15.0%	25.0%			
60	15.0%	15.0%	15.0%		
61	20.0%	15.0%	15.0%		
62	40.0%	40.0%	40.0%		
63	20.0%	20.0%	20.0%		
64	20.0%	20.0%	20.0%		
65	40.0%	100.0%	100.0%		
66	25.0%	100.0%	100.0%		
67	25.0%	100.0%	100.0%		
68	25.0%	100.0%	100.0%		
69	25.0%	100.0%	100.0%		
70+	100.0%	100.0%	100.0%		

*Includes Mental Health Authority

**Sherriff Retirement Rates are only based on age when the participant has less than 25 years of service.

Retirement rates are based on professional judgment and expectation for the general population adjusted as necessary for the specific provisions of the plan.

Annual Pay Increases (FE)

Pay increase assumption applies to all groups and includes 3.5% inflation. Pay increases compounded with inflation are based on service as follows:

<u>Service</u>	<u>Increase</u>
1	4.5%
2	3.5%
3	3.0%
4	2.5%
5	2.0%
6-19	0.5%
20+	0.0%

The annual pay increase reflects the employer's average target increase for a career employee.

Mortality Rates (FE)

RP-2014 Mortality Table with generational improvements from 2006 based on mortality improvement assumptions from the 2017 Social Security Administration Trustee's Report

Mortality assumptions are set to reflect general population trends.

Marital Status and Ages (FE)

100% of Participants assumed to be married with female spouse assumed to be 3 years younger

Expense and/or Contingency Loading (FE)

Preceding year's administrative expenses, rounded up to the nearest \$10,000. Expenses are assumed to be paid mid-year. Administrative expenses are allocated to each employer based on each employer's proportional share of the total actuarial value of assets.

Cost of Living Increases (FE)

None

Disability Rates (FE)

Ages	Percent Becoming Disabled within Next Year
20	0.08%
25	0.08%
30	0.08%
35	0.08%
40	0.20%
45	0.26%
50	0.49%
55	0.89%
60	1.41%

Disability rates are determined based on the results of broad population studies.
 50% of Disabilities are assumed to be duty related.
 50% of Disabilities are assumed to be non-duty related.

Withdrawal Rates (FE)

Age	Years of Service	Percent of Active Members Separating within Next Year	
		General*	Road Commission/Sheriff
ALL	0	11.0%	4.0%
	1	11.0%	4.0%
	2	11.0%	4.0%
	3	10.0%	4.0%
	4	10.0%	4.0%
	5+	6.0%	4.0%
20		6.0%	4.0%
25		6.0%	4.0%
30		6.0%	4.0%
35		4.0%	4.0%
40		4.0%	4.0%
45		4.0%	4.0%
50		4.0%	4.0%
55		4.0%	4.0%
60		4.0%	4.0%
65		4.0%	4.0%

*Includes Mental Health Authority

Withdrawal rates are based on professional judgment and expectation for the general population adjusted as necessary for the specific provisions of the plan.

FE indicates an assumption representing an estimate of future experience

MD indicates an assumption representing observations of estimates inherent in market data

CO indicates an assumption representing a combination of an estimate of future experience and observations of market data

The actuarial report also shows the necessary items required for plan reporting and any state requirements.

- ✓ Asset Allocation by Group
- ✓ Development of Recommended Contribution by Group
- ✓ Amortization Bases
- ✓ Demographic Information by Group
- ✓ Plan Provisions by Group

Asset Allocation by Group

The assets were originally allocated by group for the December 31, 2005 valuation. This asset allocation by group has been maintained for each valuation thereafter taking into account contributions and benefit payments by group. The table below shows how the assets changed by group since the last valuation.

	General	Mental Health	Road Commission	Total
Actuarial Value of Assets, 12/31/2016	\$ 152,281,293	\$ 40,218,736	\$ 36,630,085	\$ 229,130,114
Employer Contributions	3,946,975	1,357,418	1,088,454	6,392,847
Employee Contributions	1,105,447	504,804	278,555	1,888,806
Benefit Payments	(9,938,258)	(2,213,279)	(2,716,489)	(14,868,026)
Expenses	(111,350)	(29,409)	(26,785)	(167,544)
Investment Income	<u>12,191,432</u>	<u>3,258,085</u>	<u>2,925,464</u>	<u>18,374,981</u>
Actuarial Value of Assets, 12/31/2017	\$ 159,475,539	\$ 43,096,355	\$ 38,179,284	\$ 240,751,178

Development of Recommended Contribution by Group – General County (Including Sheriff Division)

The recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

December 31, 2017

Funded Position

1.	Entry age accrued liability	\$171,632,705
2.	Actuarial value of assets	\$159,475,539
3.	Unfunded actuarial accrued liability (UAAL)	\$12,157,166
4.	Funded Ratio, (2) / (1)	92.9%

Employer Contributions

5.	Normal Cost	
	(d) Total normal cost	\$2,602,945
	(e) Expected participant contributions	1,060,803
	(f) Net normal cost	\$1,542,142
6.	Administrative expenses	\$112,610
7.	Amortization of UAAL	1,489,681
8.	Applicable interest	355,844
9.	Total recommended contribution	\$3,500,277
10.	Estimated fiscal year payroll	\$21,648,797
11.	Recommended contribution as a percentage of estimated payroll	16.2%

Development of Recommended Contribution by Group – Mental Health

The recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

December 31, 2017

Funded Position

1. Entry age accrued liability	\$46,395,290
2. Actuarial value of assets	\$43,096,355
3. Unfunded actuarial accrued liability (UAAL)	\$3,298,935
4. Funded Ratio, (2) / (1)	92.9%

Employer Contributions

5. Normal Cost	
(a) Total normal cost	\$1,045,758
(b) Expected participant contributions	469,471
(c) Net normal cost	\$576,287
6. Administrative expenses	\$30,431
7. Amortization of UAAL	\$316,173
8. Applicable interest	104,543
9. Total recommended contribution	\$1,027,434
10. Estimated fiscal year payroll	\$9,418,249
11. Recommended contribution as a percentage of estimated payroll	10.9%

Development of Recommended Contribution by Group – Road Commission

The recommended contribution is the annual amount necessary to fund the plan according to funding policies and/or applicable laws.

December 31, 2017

Funded Position

1. Entry age accrued liability	\$41,731,796
2. Actuarial value of assets	\$38,179,284
3. Unfunded actuarial accrued liability (UAAL)	\$3,552,512
4. Funded Ratio, (2) / (1)	91.5%

Employer Contributions

5. Normal Cost	
(a) Total normal cost	\$431,950
(b) Expected participant contributions	270,366
(c) Net normal cost	\$161,584
6. Administrative expenses	\$26,959
7. Amortization of UAAL	\$393,000
8. Applicable interest	65,568
9. Total recommended contribution	\$647,111
10. Estimated fiscal year payroll	\$3,198,320
11. Recommended contribution as a percentage of estimated payroll	20.2%

Amortization Bases

General County (Including Sheriff Division)

<u>Date Established</u>	<u>Years Remaining</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
12/31/2014	12	\$13,019,485	\$1,565,703
12/31/2015	13	2,542,097	291,015
12/31/2016	14	(1,970,652)	(215,942)
12/31/2017	15	(1,433,764)	(151,095)
Total		\$12,157,166	\$1,489,681

Mental Health

<u>Date Established</u>	<u>Years Remaining</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
12/31/2017	18	\$3,298,935	\$316,173

Road Commission

<u>Date Established</u>	<u>Years Remaining</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
12/31/2016	14	\$4,439,101	\$486,432
12/31/2017	15	(886,589)	(93,432)
Total		\$3,552,512	\$393,000

Total **\$19,008,613** **\$2,198,854**

Demographic Information by Group

	General County	Mental Health	Road Commission	Plan Total
Active Participants				
Number accruing benefits	382	164	58	604
Average age	48.7	47.1	52.4	48.6
Average years of employment	15.5	11.5	20.0	14.8
Average pay	\$56,179	\$56,866	\$58,485	\$56,587
Terminated Vested				
Number of Terminated Vested	80	62	10	152
Average age	49.4	49.4	52.8	49.6
Number with monthly benefits	66	46	10	122
Total deferred monthly benefits	\$57,331	\$49,780	\$9,160	\$116,271
Average deferred monthly benefit	\$869	\$1,082	\$916	\$953
Participants Receiving Benefits				
Number of Receiving Benefits	480	117	136	733
Average age	70.3	68.3	73.0	70.5
Total monthly benefits	\$825,075	\$176,193	\$225,506	\$1,226,774
Average monthly benefit	\$1,719	\$1,506	\$1,658	\$1,674

Demographic Information by Group - Total Actives at 12/31/2017

Attained Age as of 12/31/2017	Credited Service								Average Pay
	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 +	Total	
20 - 24	4							4	\$40,384
25 - 29	8	1						9	\$45,752
30 - 34	12	16	14					42	\$53,234
35 - 39	6	11	42	4				63	\$57,954
40 - 44	10	17	29	33	4			93	\$57,704
45 - 49	3	15	36	41	26	6	2	129	\$61,371
50 - 54	6	11	27	20	27	9	7	107	\$58,185
55 - 59	2	6	22	28	13	3	5	79	\$51,969
60	3	1	4	3			2	13	\$53,659
61		1	1	9	4	2		17	\$62,594
62		1	3	5			3	12	\$60,359
63	1		3			1		5	\$52,431
64			4	7	2	1		14	\$47,260
65 +	1	2	1	7	1	1	4	17	\$40,826
Total	56	82	186	157	77	23	23	604	\$56,587

Demographic Information by Group - General County Actives at 12/31/2017

Attained Age as of 12/31/2017	Credited Service								Average Pay
	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 +	Total	
20 - 24	4							4	\$40,384
25 - 29	2							2	\$24,276
30 - 34	4	10	11					25	\$55,634
35 - 39	1	9	33	4				47	\$57,417
40 - 44	3	7	19	24	3			56	\$60,530
45 - 49		9	24	27	16	5	1	82	\$60,733
50 - 54		5	20	13	16	7	5	66	\$56,722
55 - 59		3	14	21	8		2	48	\$47,961
60			4	2				6	\$40,909
61		1	1	5	4	2		13	\$60,229
62			1	5			1	7	\$64,363
63			3			1		4	\$58,460
64			4	6	1			11	\$50,061
65 +		1	1	5		1	3	11	\$43,811
Total	14	45	135	112	48	16	12	382	\$56,179

Demographic Information by Group - Mental Health Actives at 12/31/2017

Attained Age as of 12/31/2017	Credited Service								Average Pay
	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 +	Total	
20 - 24								0	\$0
25 - 29	6							6	\$50,816
30 - 34	8	6	3					17	\$49,704
35 - 39	5	2	7					14	\$59,249
40 - 44	7	10	8	5				30	\$51,710
45 - 49	3	6	11	8	7			35	\$63,930
50 - 54	6	6	5	5	3	1	1	27	\$61,286
55 - 59	2	2	7	4	1	2		18	\$52,832
60	3	1		1			2	7	\$64,588
61				1				1	\$63,808
62		1	1				1	3	\$54,968
63	1							1	\$28,316
64						1		1	\$47,431
65 +	1	1		1			1	4	\$48,879
Total	42	35	42	25	11	4	5	164	\$56,866

Demographic Information by Group - Road Commission Actives at 12/31/2017

Attained Age as of 12/31/2017	Credited Service							Total	Average Pay
	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 +		
20 - 24								0	\$0
25 - 29		1						1	\$58,318
30 - 34								0	\$0
35 - 39			2					2	\$61,507
40 - 44			2	4	1			7	\$60,779
45 - 49			1	6	3	1	1	12	\$58,270
50 - 54			2	2	8	1	1	14	\$59,100
55 - 59		1	1	3	4	1	3	13	\$65,569
60								0	\$0
61				3				3	\$72,435
62			1				1	2	\$54,434
63								0	\$0
64				1	1			2	\$31,767
65 +				1	1			2	\$8,299
Total	0	2	9	20	18	3	6	58	\$58,485

Demographic Information by Group - Terminated Vested at 12/31/2017

Due Only Employee Contributions Refund

Attained Age as of 12/31/2017	General		Mental Health		Road Commission		Total	
	#	Dollars	#	Dollars	#	Dollars	#	Dollars
20 - 39	6	\$32,653	7	\$68,388	0	\$0	13	\$101,041
40 - 49	5	42,105	3	8,554	0	0	8	50,659
50 - 59	3	27,235	4	21,300	0	0	7	48,535
60 +	0	-	2	9,275	0	0	2	9,275
Total	14	\$101,992	16	\$107,518	0	\$0	30	\$209,510

Have a Vested Monthly Benefit Payable

Attained Age as of 12/31/2017	General		Mental Health		Road Commission		Total	
	#	Average Benefit	#	Average Benefit	#	Average Benefit	#	Average Benefit
20 - 39	6	\$968	4	\$930	0	\$0	10	\$953
40 - 49	19	918	18	1,127	6	951	43	1,010
50 - 59	36	881	22	1,079	1	1,082	59	958
60 +	5	476	2	1,021	3	791	10	679
Total	66	\$869	46	\$1,082	10	\$916	122	\$953

Demographic Information by Group - Participants Receiving Benefits at 12/31/2017

Attained Age as of 12/31/2017	General		Mental Health		Road Commission		Total	
	#	Average Benefit	#	Average Benefit	#	Average Benefit	#	Average Benefit
<40	0	\$0	0	\$0	1	\$932	1	\$932
40 - 49	0	0	0	0	0	0	0	\$0
50 - 54	9	3,021	2	1,782	3	2,275	14	2,684
55 - 59	37	2,605	12	2,307	6	1,812	55	2,454
60 - 64	91	2,111	20	1,501	20	2,007	131	2,002
65 - 69	121	1,741	40	1,538	24	2,364	185	1,778
70 - 74	102	1,673	21	1,321	33	1,825	156	1,658
75 - 79	58	1,103	14	1,163	12	1,640	84	1,190
80 - 84	25	1,263	7	1,170	15	871	47	1,139
85 - 89	23	896	1	481	12	844	36	867
90 +	14	856	0	-	10	691	24	787
Total	480	\$1,719	117	\$1,506	136	\$1,658	733	\$1,674

Plan Provisions by Group

Group	Code	Category	Eligibility	Multiplier	Maximum	Lump Sums in FAC	Years in FAC period	Closed to New Hires
Bailiff and Court Security Officers Assoc. Modified	66	G	Rule of 80, 60 & 8, 55 & 25	Graded	hired prior 1/1/08 75% - hired after 1/1/08 70%	N	3	7/1/2012
Bailiff and Court Security Officers Assoc. Original	67	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	7/1/2012
Board Members Modified	13	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
Board Members Original	57	G	Rule of 80, 60 & 8, 55 & 25	2%	75.00%	N	3	1/1/2009
CANUE Non-Affiliated Modified	36	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
CANUE Non-Affiliated Original	37	G	Rule of 80, 60 & 8, 55 & 25	2%	75.00%	N	3	1/1/2009
Circuit Crt/Probate Crt Employees Assoc	72	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
Commissioners Modified	14	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
Communication Officers POAM Modified	69	G	Rule of 80, 25 & Out, 60 & 8, 55 & 25	Graded	75.00%	Y	3	7/1/2011
Communication Officers POAM Original	68	G	Rule of 80, 25 & Out, 60 & 8, 55 & 25	2%	64.00%	Y	3	7/1/2011
Corr. Ofcrs. & Support Staff Modified	24	G	Rule of 80, 25 & out (Corr Off Only), 60 & 8, 55 & 25	Graded	75.00%	Y	3	10/21/2009
Corr. Ofcrs. & Support Staff Original	23	G	Rule of 80, 25 & out (Corr Off Only), 60 & 8, 55 & 25	2%	64.00%	Y	3	10/21/2009
Corrections Officers Supervisors Modified	25	G	Rule of 80, 25 & out (Corr Off Only), 60 & 8, 55 & 25	Graded	75.00%	Y	3	1/1/2009
Corrections Officers Supervisors Original	26	G	Rule of 80, 25 & out (Corr Off Only), 60 & 8, 55 & 25	2%	64.00%	Y	3	1/1/2009
District Court AFSCME Modified	38	G	Rule of 80, 60 & 8, 55 & 25	Graded	hired prior 7/1/06 75% - hired after 7/1/06 70%	N	3	8/19/2009
District Court AFSCME Original	39	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	8/19/2009
Elected Officials Modified	15	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
Elected Officials Original	16	G	Rule of 80, 60 & 8, 55 & 25	2%	75.00%	N	3	1/1/2009
Friend of Court Supervisors Modified	32	G	Rule of 80, 60 & 8, 55 & 25	Graded	hired prior 1/1/07 75% - hired after 1/1/07 70%	N	3	7/1/2011
Friend of Court Supervisors Original	33	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	7/1/2011
Friend of the Court Modified	30	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	5/11/2011
Friend of the Court Original	31	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	5/11/2011
Human Resources Clerks and Specialists Modified	58	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
Human Resources Clerks and Specialists Original	59	G	Rule of 80, 60 & 8, 55 & 25	2%	75.00%	N	3	1/1/2009



Plan Provisions by Group

Group	Code	Category	Eligibility	Multiplier	Maximum	Lump Sums in FAC	Years in FAC period	Closed to New Hires
Judges Modified	35	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
Mental Health Chapter 10 Modified	17	MH	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	5	1/1/2016
Mental Health Chapter 10 Original	18	MH	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	5	1/1/2016
Mental Health Chapter 20 Modified	17	MH	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	Y	5	1/1/2016
Mental Health Chapter 20 Original	18	MH	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	Y	5	1/1/2016
Probate Clerical Modified	44	G	Rule of 80, 60 & 8, 55 & 25	Graded	hired prior 7/1/06 75% - hired after 7/1/06 70%	N	3	7/1/2011
Probate Court Juvenile Counselors Modified	46	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	12/16/2009
Probate Court Juvenile Counselors Original	47	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	12/16/2009
Probate Court Supervisors Modified	48	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
Probate Court Supervisors Original	49	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	1/1/2009
Prosecuting Attorneys Modified	42	G	Rule of 80, 60 & 8, 55 & 25	Graded	69.60%	N	3	1/1/2009
Prosecuting Attorneys Original	43	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	1/1/2009
Public Health Nurse Supervisors Modified	60	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
Public Health Nurse Supervisors Original	61	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	1/1/2009
Public Health Nurses Modified	52	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/1/2009
Public Health Nurses Original	53	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	1/1/2009
Public Service Employees Modified	50	G	Rule of 80, 60 & 8, 55 & 25	Graded	hired prior 7/1/06 75% - hired after 7/1/06 70%	N	3	7/1/2009
Public Service Employees Original	51	G	Rule of 80, 60 & 8, 55 & 25	2%	64.00%	N	3	7/1/2009
Road Commission Modified	20	RC	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	Y	3	8/23/2011
Road Commission Original	19	RC	Rule of 80, 60 & 8, 55 & 25	2%	75.00%	Y	3	8/23/2011
Sheriff Deputies Modified	22	G	Rule of 80, 25 & out, 60 & 8, 55 & 25	Graded	75.00%	Y	3	No
Sheriff Deputies Original	21	G	Rule of 80, 25 & out, 60 & 8, 55 & 25	2%	64.00%	Y	3	No
Sheriff Deputies Supervisors Modified	27	G	Rule of 80, 25 & out, 60 & 8, 55 & 25	Graded	hired prior 1/1/07 75% - hired after 1/1/07 70%	Y	3	7/1/2011