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St. Clair County Employees' Retirement System

December 31, 2019

Actuarial Valuation Report

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Actuarial Certification

At the request of the plan sponsor, this report summarizes the actuarial results of the St. Clair County Employees' Retirement System as of December 31, 2019. The purpose of this report is to communicate the following results of the valuation:

- Funded Status;
- and Determine Recommended Contribution;

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 and asset 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 employer. 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.

Actuarial Certification

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

Elizabeth A. Wiley

Elizabeth A. Wiley, FSA, EA

Nick H. Meggos

Nick H. Meggos, EA, FCA

September 30, 2020

Date

Executive Summary

The actuarial report provides the plan sponsor with several ways to measure the funded status of the pension plan. The following detail is included in the report:

- Recommended Contribution
- Asset Performance
- Plan Demographics

This report is filled with actuarial terminology. However, the ultimate objective of the valuation is to provide a rational method of funding the plan. It is necessary to fund the benefit promised by the employer in a manner that is logical and employer friendly, yet safeguards the participants' interest. The actuarially derived contribution, however, is not the true cost of the pension plan. The true cost is illustrated by the following formula:

$$\text{Ultimate Pension Cost} = \text{Benefits Paid} - \text{Investment Income} + \text{Plan Expenses}$$

While the plan's liability and normal cost determine the current contribution recommendations, the true cost is controlled only by the "defined" benefit and investment income generated by the underlying assets. The actuarial process only controls the timing of costs.

We suggest that a plan sponsor treat the actuarial report as you would treat a scorecard. It is simply a measure of progress toward the ultimate goal of paying all pension benefits when participants retire.

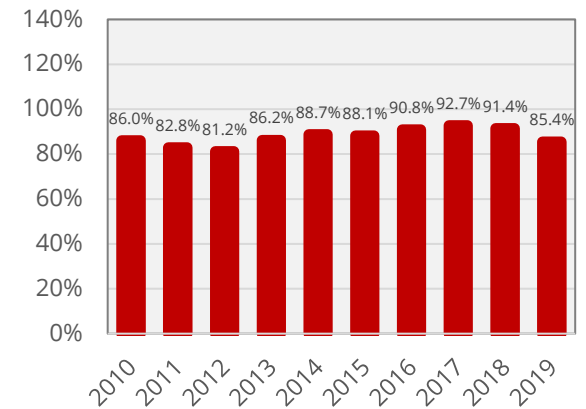
Executive Summary

Summary Results

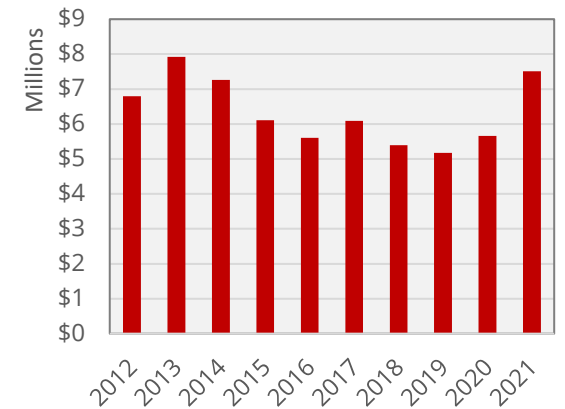
The actuarial valuation's primary purpose is to produce a scorecard measure displaying the funding progress of the plan toward the ultimate goal of paying benefits at retirement. The accrued liability is based on an entry age level percentage of pay.

Valuation Date For Fiscal Year Beginning	December 31, 2018 January 1, 2020	December 31, 2019 January 1, 2021
Funded Status Measures		
Entry Age Accrued Liability	\$267,201,290	\$294,855,467
Actuarial Value of Assets	244,280,219	251,879,408
Unfunded Actuarial Accrued Liability (UAAL)	\$22,921,071	\$42,976,059
Funded Percentage (AVA)	91.4%	85.4%
Funded Percentage (MVA)	83.4%	86.1%
Cost Measures		
Recommended Contribution	\$5,655,485	\$7,508,530
Recommended Contribution as a Percentage of Payroll	16.9%	23.5%
Asset Performance		
Market Value of Assets (MVA)	\$222,940,832	\$253,836,937
Actuarial Value of Assets (AVA)	\$244,280,219	\$251,879,408
Actuarial Value/Market Value	109.6%	99.2%
Market Value Rate of Return	-4.7%	18.0%
Actuarial Value Rate of Return	4.6%	6.7%
Participant Information		
Active Participants	578	549
Terminated Vested Participants	144	142
Retirees, Beneficiaries, and Disabled Participants	740	766
Total	1,462	1,457
Expected Fiscal Year Payroll	\$33,483,820	\$31,901,706
Covered Payroll	\$34,322,001	\$33,839,843

History of Funded Ratio



History of Recommended Contribution



Executive Summary

Changes since Prior Valuation and Key Notes

The interest rate has decreased from 7.50% to 7.00%. This change results in an increase in liability and normal cost.

The mortality table has been updated from the RP-2014 mortality table with generational improvements from 2006 based on the SOA Scale MP-2018 for all groups to the following:

- General: Pub-2010 General mortality table with generational improvements from 2010 based on the SOA Scale MP-2019
- Sheriff: Pub-2010 Public Safety mortality table with generational improvements from 2010 based on the SOA Scale MP-2019
- Mental Health: Pub-2010 General mortality table with generational improvements from 2010 based on the SOA Scale MP-2019
- Road Commission: RP-2014 Blue Collar mortality table with generational improvements from 2006 based on the SOA Scale MP-2019

This change results in an increase in liability and normal cost.

Effective December 31, 2019, the assumption for inflation was updated to reflect the recommended update from the Experience Study report dated December 13, 2019. This change is implicit with the interest rate assumption.

Effective December 31, 2019, the assumption for annual pay increases was updated based on a study of actual experience for the plan during 2013-2018. Please see the experience study report dated December 13, 2019. This change results in a decrease in liability and a decrease in normal cost.

Effective December 31, 2019, the assumption for retirement rates was updated based on a study of actual experience for the plan during 2013-2018. Please see the experience study report dated December 13, 2019. This change results in an increase in liability and an increase in normal cost.

Effective December 31, 2019, the assumption for withdrawal rates was updated based on a study of actual experience for the plan during 2013-2018. Please see the experience study report dated December 13, 2019. This change results in an increase in liability and an increase in normal cost.

Effective December 31, 2019, the assumption for participant payment form elections was updated based on a study of actual experience for the plan during 2013-2018. Please see the experience study report dated December 13, 2019. This change results in an increase in liability and an increase in normal cost.

Beginning January 1, 2020, participating employees must agree to contribute 6% of their compensation to the plan (8% for Road Commission), with the exception of employees in the following units, who must agree to contribute 5% of their compensation:

- SDEI Corrections Officers
- FOCP Friend of Court Supervisors
- PCJC Probate Court Juvenile Counselors
- SDEE Sheriff Deputies
- SDSP Sheriff Supervisors
- CPEA/PCSP Circuit Court Supervisors, Family and Probate Employees

This change results in an increase in liability and a decrease in employer normal cost.

Executive Summary

Five Year Valuation Summary

Valuation Date For Fiscal Year Beginning	12/31/2015 1/1/2017	12/31/2016 1/1/2018	12/31/2017 1/1/2019	12/31/2018 1/1/2020	12/31/2019 1/1/2021
Funding					
Entry Age Accrued Liability	\$247,490,511	\$252,268,270	\$259,759,791	\$267,201,290	\$294,855,467
Actuarial Value of Assets	218,132,651	229,130,114	240,751,178	244,280,219	251,879,408
Unfunded Actuarial Accrued Liability	\$29,357,860	\$23,138,156	\$19,008,613	\$22,921,071	\$42,976,059
Funded Percentage	88.1%	90.8%	92.7%	91.4%	85.4%
Normal Cost (NC)	\$4,390,796	\$4,196,619	\$4,080,653	\$3,967,039	\$3,702,345
NC as a Percent of Covered Payroll	11.3%	11.4%	11.6%	11.6%	10.9%
Actual Contributions	\$7,179,980	\$6,264,277	\$6,392,847	\$6,172,608	\$5,694,846
Recommended Contribution	\$6,108,936	\$5,608,719	\$6,090,683	\$5,396,056	\$5,174,822
Expected Fiscal Year Payroll	\$37,714,347	\$35,708,838	\$34,265,366	\$33,483,820	\$31,901,706
Recommended Contribution (% of Pay)	16.1%	15.1%	15.1%	16.9%	23.5%
Interest Rate	7.50%	7.50%	7.50%	7.50%	7.00%
Expense Load Assumption	\$77,577	\$73,624	\$170,000	\$160,000	\$210,000
Rate of Return					
Actuarial Value of Assets	6.6%	8.0%	8.1%	4.6%	6.7%
Market Value of Assets	1.6%	8.1%	11.9%	-4.7%	18.0%
Demographic Information					
Active Participants	696	642	604	578	549
Terminated Vested Participants	163	173	152	144	142
Retired Participants	585	599	629	641	664
Beneficiaries	102	97	95	90	93
Disabled Participants	7	8	9	9	9
Total Participants	1,553	1,519	1,489	1,462	1,457
Covered Payroll	\$38,788,593	\$36,811,921	\$35,236,433	\$34,322,001	\$33,839,843
Average Compensation*	\$53,777	\$55,579	\$56,587	\$58,248	\$61,286

*Average Compensation shown is the average pay received by Active Participants during the year of the Valuation Date

Executive Summary

Identification of Risks

The results presented in this report are shown as single point values. However, these values are derived using assumptions about future markets and demographic behavior. If actual experience deviates from our assumptions, the actual results for the plan will consequently deviate from those presented in this report. Therefore, it is critical to understand the risks facing this pension plan. The following table shows the risks we believe are most relevant to the St. Clair County Employees' Retirement System. The risks are generally ordered with those we believe to have the most significance at the top. Also shown are possible methods by which a more detailed assessment of the risk can be performed.

Type of Risk	Method to Assess Risk
Investment Return	Scenario Testing; Asset Liability Study
Contribution Risk	Scenario Testing; Stress Testing
Demographic Risk	Scenario Testing; Stress Testing; Experience Study
Participant Longevity	Stress Testing; Experience Study
Salary Growth	Scenario Testing; Experience Study
Interest Rates	Scenario Testing; Stochastic Modeling

Plan Maturity Measures - December 31, 2019

Each pension plan has a distinct life-cycle. New plans promise future benefits to active employees and then accumulate assets to pre-fund those benefits. As the plan matures, benefits are paid and the pre-funded assets begin to decumulate until ultimately, the plan pays out all benefits. A plan's maturity has a dramatic influence on how risks should be viewed. The following maturity measures illustrate where the St. Clair County Employees' Retirement System falls in its life-cycle.

Duration of Liabilities: 11.9

Duration is the most common measure of plan maturity. It is defined as the sensitivity of the liabilities to a change in the interest rate assumption. The metric also approximates the weighted average length of time, in years, until benefits are expected to be paid. A plan with high duration is, by definition, more sensitive to changes in interest rates. A plan with low duration is more susceptible to risk if asset performance deviates from expectations as there would be less time to make up for market losses in adverse market environments while more favorable environments could result in trapped surplus from gains. Conversely, high duration plans can often take on more risk when investing, and low duration plans are less sensitive to interest rate fluctuations.

Demographic Distribution - Ratio of Actively Accruing Participants to All Participants: 37.7%

A plan with a high ratio is more sensitive to fluctuations in salary (if a salary-based plan) and statutory changes. A plan with a low ratio is at higher risk from demographic experience. Such a plan should pay close attention to valuation assumptions as there will be less opportunity to realize future offsetting gains or losses when current experience deviates from assumptions. Plans with a low ratio also have limited opportunities to make alterations to plan design to affect future funded status.

Asset Leverage - Ratio of Payroll for Plan Participants to Market Value of Assets: 13.3%

Younger plans typically have a large payroll base from which to draw in order to fund the plan while mature plans often have a large pool of assets dedicated to providing benefits to a population primarily consisting of members no longer on payroll. Plans with low asset leverage will find it more difficult to address underfunding, as the contributions needed to make up the deficit will represent a higher percentage of payroll than for a plan with high asset leverage.

Benefit Payment Percentage - Ratio of Annual Benefit Payments to Market Value of Assets: 6.2%

As a plan enters its decumulation phase, a larger percentage of the pre-funded assets are paid out each year to retirees. A high percentage is not cause for alarm as long as the plan is nearly fully funded. However, such a plan is more sensitive to negative asset performance, especially if cash contributions are not an option to make up for losses.

Assets and Liabilities

The basic building blocks of the actuarial report are contained in this section. These include:

- Actuarial Accrued Liabilities
- Asset Information
- Summary of Contributions

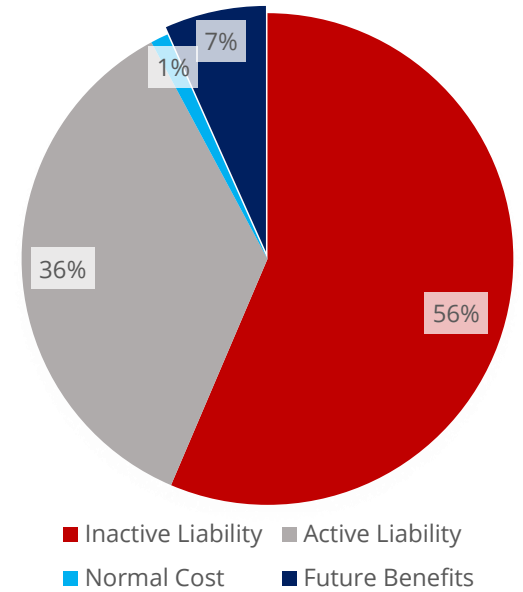
Assets and Liabilities

Present Value of Future Benefits

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

	December 31, 2019
Present Value of Future Benefits	
Active participants	
Retirement	\$114,097,635
Disability	7,127,676
Death	1,120,236
Termination	17,077,719
Total active	<u>\$139,423,266</u>
Inactive participants	
Retired participants	\$156,919,411
Beneficiaries	12,033,992
Disabled participants	1,067,834
Terminated vested participants	10,455,050
Total inactive	<u>\$180,476,287</u>
Total	<u>\$319,899,553</u>
 Present value of future payrolls	 \$226,888,216

Breakdown of Present Value of Future Benefits



Assets and Liabilities

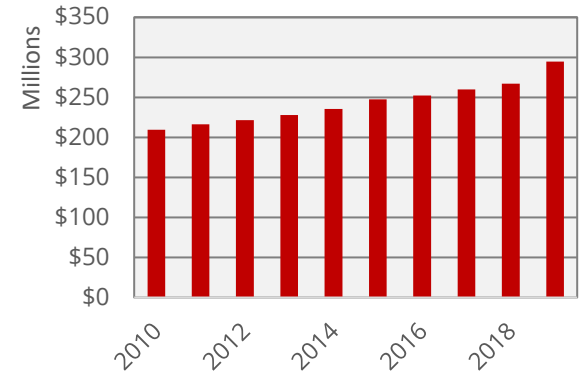
Entry Age Accrued Liability

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

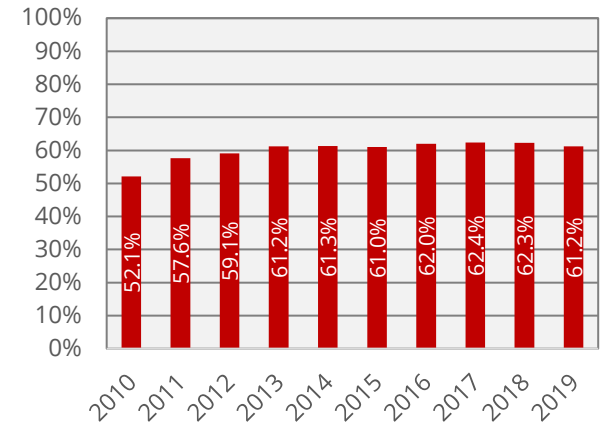
December 31, 2019

Active participants	
Retirement	\$98,167,898
Disability	5,322,877
Death	908,944
Termination	9,979,461
Total Active	<u>\$114,379,180</u>
Inactive participants	
Retired participants	\$156,919,411
Beneficiaries	12,033,992
Disabled participants	1,067,834
Terminated vested participants	10,455,050
Total Inactive	<u>\$180,476,287</u>
 Total Entry Age Accrued Liability	 \$294,855,467
 Normal Cost	 \$3,702,345
Interest Rate	7.00%

History of Liabilities



History of the Percentage of Inactive Liability



Assets and Liabilities

Reconciliation of Entry Age Accrued Liabilities

A plan's Entry Age Accrued Liability will change from one year to the next. It increases due to benefit accruals (Normal Cost) and interest, and it decreases as benefits are paid. Demographic experience, assumptions changes, and plan changes can cause increases or decreases.

	December 31, 2019
1. Entry Age Accrued Liability prior year	\$267,201,290
2. Increases or decreases due to:	
(a) Normal Cost	\$3,967,039
(b) Interest Adjustment	19,756,805
(c) Benefits Paid	(15,773,683)
(d) Demographic Experience	895,271
(e) Interest Rate Changes	14,839,195
(f) Mortality Changes	3,838,994
(g) Other Assumption Changes	130,556
(h) Plan Changes	0
(i) Other Changes	0
3. Entry Age Accrued Liability current year	\$294,855,467

Assets and Liabilities

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, 2019

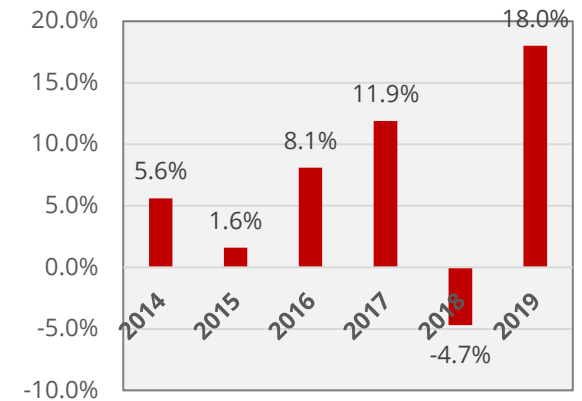
Market Value Reconciliation

Market value of assets, beginning of prior year	\$222,940,832
Contributions	
Employer contributions	\$5,694,846
Employee contributions	1,830,164
Total	<u>\$7,525,010</u>
Investment income	\$39,352,638
Benefit payments	(\$15,773,683)
Administrative expenses	<u>(\$207,860)</u>
Market value of assets, beginning of current year (without receivable contributions)	\$253,836,937
Discounted receivable contributions	\$0
Market value of assets, beginning of current year (with discounted receivables)	\$253,836,937
Historical Rates of Return	
Rate of return for 2019	18.0%
Rate of return for 2018	-4.7%
Rate of return for 2017	11.9%
Rate of return for 2016	8.1%

Actuarial Value of Assets

Value at beginning of current year	\$251,879,408
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Rates of Return



Monitoring the pension plan's investment performance is crucial to eliminating surprises.

Assets and Liabilities

Asset Information (continued) – 20% Phase in

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

December 31, 2019

Investment Gain or (Loss)

1. Prior year's actuarial value of assets	\$244,280,219
2. Employer contributions for the prior plan year	5,694,846
3. Employee contributions for the prior plan year	1,830,164
4. Benefit payments during the prior plan year	(15,773,683)
5. Administrative expenses during the prior plan year	(207,860)
6. Expected earnings at 7.50% to the end of the plan year on	
(a) Actuarial value of assets	\$18,321,016
(b) Contributions	282,188
(c) Benefit payments	(591,513)
(d) Administrative expenses	(7,795)
(e) Total expected earnings, (a) + (b) + (c) + (d)	\$18,003,896
7. Expected actuarial value of assets, beginning of current year	\$253,827,582
8. Market value of assets, beginning of current year	\$253,836,937
9. Actual return on market value	\$39,352,638
10. Investment Gain or (Loss), (9) – (6e)	\$21,348,742

Actuarial Value of Assets

11. Phase in of asset gain/(loss)	
(a) Current year (20% x \$21,348,742)	\$4,269,748
(b) First prior year (20% x (\$29,026,550))	(5,805,310)
(c) Second prior year (20% x \$9,145,529)	1,829,106
(d) Third prior year (20% x \$850,184)	170,037
(e) Fourth prior year (20% x (\$12,058,774))	(2,411,755)
(f) Total phase-in	(\$1,948,174)
12. Preliminary actuarial value of assets, [(1) + (2) + (3) + (4) + (5) + (6e)] + (10f)	\$251,879,408
13. 80% Market value of assets	\$203,069,550
14. 120% Market value of assets	\$304,604,324
15. Final actuarial value of assets	\$251,879,408
16. Return on actuarial value of assets	6.7%

Funding Results

The basic building blocks of the actuarial report are contained in this section. These include:

- Reconciliation of Gain/Loss
- Recommended Contribution

Funding Results

Reconciliation of Gain/Loss

December 31, 2019

Liability (Gain)/Loss

1. Entry Age Accrued liability, beginning of prior year	\$267,201,290
2. Normal cost for prior year	3,967,039
3. Benefit payments	(15,773,683)
4. Expected Interest	19,756,805
5. Change in Assumptions	18,808,745
6. Change in Plan Provisions	0
7. Expected Entry Age Accrued liability, beginning of current year	\$293,960,196
8. Actual Entry Age Accrued liability	\$294,855,467
9. Liability Gain/(Loss), (7) – (8)	(\$895,271)

Asset Gain/(Loss)

10. Actuarial value of assets, beginning of prior year	\$244,280,219
11. Contributions	7,525,010
12. Benefit payments	(15,773,683)
13. Administrative expenses	(207,860)
14. Expected Investment return	18,003,896
15. Expected actuarial value of assets, beginning of current year	\$253,827,582
16. Actual actuarial value of assets, beginning of current year	\$251,879,408
17. Asset Gain/(Loss), (16) – (15)	(\$1,948,174)

Total Gain/(Loss), (17) + (9)

(\$2,843,445)

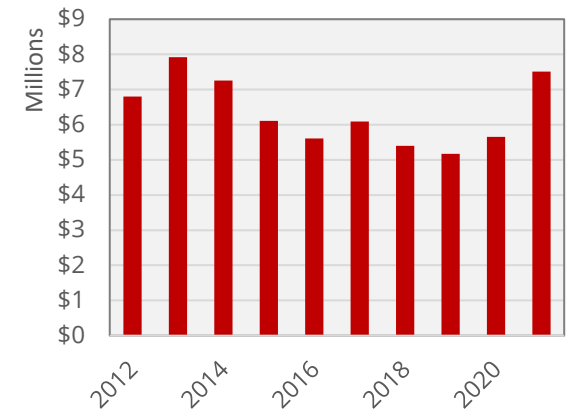
Development of Recommended Contribution

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

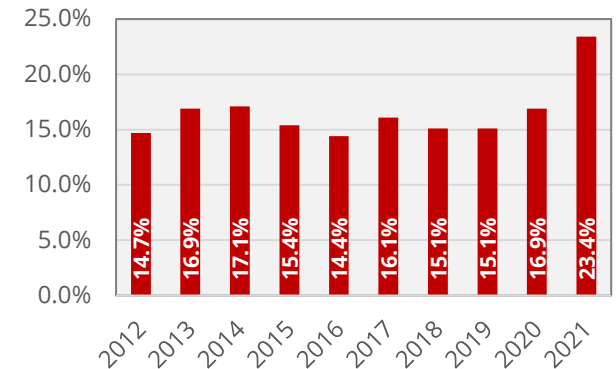
December 31, 2019	
Recommended Contribution	
1. Entry Age Accrued Liability	
(a) Active	\$114,379,180
(b) Terminated Vested Benefits	10,455,050
(c) Receiving Benefits	170,021,237
(d) Total, (a) + (b) + (c)	<u>\$294,855,467</u>
2. Actuarial value of assets	<u>\$251,879,408</u>
3. Unfunded accrued liability, (1d) - (2)	\$42,976,059
4. Amortization of (3)*	\$4,813,572
5. Normal Cost	
(a) Total Normal Cost	\$3,702,345
(b) Expected Participant Contributions	<u>(1,935,034)</u>
(c) Net Normal Cost	\$1,767,311
6. Administrative Expenses	\$210,000
7. Applicable Interest	717,647
8. Total Recommended Contribution, (4) + (5c) + (6) + (7)	<u>\$7,508,530</u>
9. Estimated Fiscal Year Payroll	\$31,901,706
10. Percent of Participating Payroll, (8) / (9)	23.5%

*More details are provided in the back of the report.

History of Recommended Contribution



History of Recommended Contribution (% of Payroll)



Data, Assumptions, and Plan Provisions

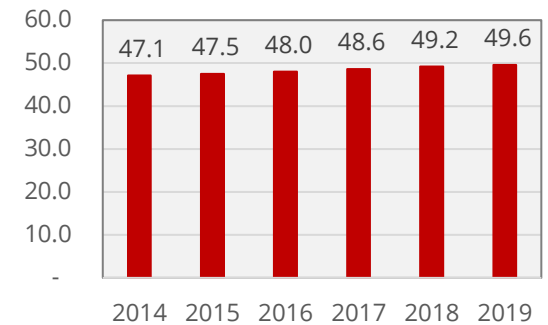
- Demographic Information
- Plan Provisions
- Assumptions and Methods

Demographic Information

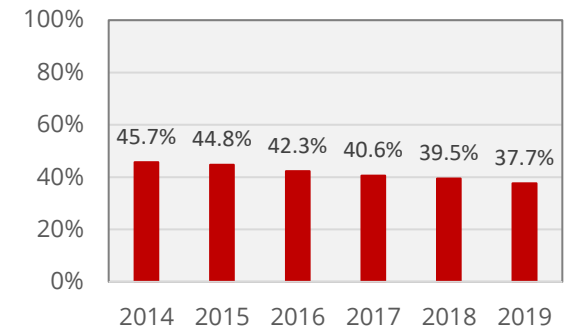
The foundation of a reliable actuarial report is the participant information provided by the plan sponsor. Monitoring trends in demographic information is crucial for long-term pension planning.

	December 31, 2018	December 31, 2019
Participant Counts		
Active Participants	578	549
Retired Participants	641	664
Beneficiaries	90	93
Disabled Participants	9	9
Terminated Vested Participants	144	142
Total Participants	1,462	1,457
Active Participant Demographics		
Average Age	49.2	49.6
Average Service	15.5	16.2
Average Compensation	\$58,248	\$61,286
Estimated Fiscal Year Payroll	\$33,483,820	\$31,901,706
Total Covered Payroll	\$34,322,001	\$33,839,843

History of Average Active Participant Age



History of Active Participant Ratio



Demographic Information (continued)

	December 31, 2018	December 31, 2019
Retiree Statistics		
Average Age	70.0	70.5
Average Monthly Benefit	\$1,795	\$1,793
Beneficiary Statistics		
Average Age	76.8	77.0
Average Monthly Benefit	\$1,182	\$1,235
Disabled Participant Statistics		
Average Age	64.8	65.9
Average Monthly Benefit	\$953	\$953
Terminated Vested Participant Statistics		
Number of Terminated Vested	144	142
Average Age	50.2	50.2
Number with Monthly Benefits	124	121
Average Monthly Benefit	\$981	\$992
Number due Employee Contribution Refund	20	21
Total Employee Contribution Dollars	\$155,487	\$147,898

Monitoring the average age of the population is important due to the relationship of actuarial cost to age. Generally speaking, an older population generates a higher actuarial cost.

Changes in the ratio of active to retired participants can be a significant driver of costs in a volatile asset market.

Participant Reconciliation

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Totals
Prior Year	578	144	9	641	90	1,462
Active						
To Death	0	0	0	0	0	0
To Terminated Vested	(7)	7	0	0	0	0
To Lump Sum Cash-Out	0	0	0	0	0	0
To Retired	(25)	0	0	25	0	0
Terminated Vested						
To Active	0	0	0	0	0	0
To Non-Participating	0	0	0	0	0	0
To Retired	0	(8)	0	8	0	0
To Survivor	0	0	0	0	0	0
To Lump Sum Cash-Out	0	(3)	0	0	0	(3)
To Death	0	0	0	0	0	0
Retired						
To Death	0	0	0	(11)	0	(11)
Survivor						
To Death	0	0	0	0	(4)	(4)
Additions	3	2	0	1	7	13
Departures	0	0	0	0	0	0
Current Year	549	142	9	664	93	1,457

Data, Assumptions, and Plan Provisions

Active Participant Schedule

Active participant information grouped based on age and service.

Age Group	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	2	1									3
25 to 29		8	1								9
30 to 34	1	7	7	4							19
35 to 39		2	13	32	9						56
40 to 44		5	16	27	32	6					86
45 to 49		1	14	30	31	23	7				106
50 to 54		1	5	29	33	34	14	4	1		121
55 to 59		2	6	13	22	20	4	10			77
60 to 64		2	4	9	18	9	2	5			49
65 to 69		1	1	6	5	1		4			18
70 & up		1			2	1		1			5
Total	3	31	67	150	152	94	27	24	1		549

Data, Assumptions, and Plan Provisions

Plan Provisions

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%.

Data, Assumptions, and Plan Provisions

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

Actuarial Equivalence

Interest Rate: 7.0%

Mortality: Pub-2010 General mortality table, blended 50% female and 50% male, projected to the valuation date for the year using the SOA MP improvement scale in effect for the previous valuation year.

Data, Assumptions, and Plan Provisions

Employee Contributions

As a condition for participation, employees must agree to contribute 6% of their compensation to the plan (8% for Road Commission), with the exception of employees in the following units, who must agree to contribute 5% of their compensation:

- SDEI Corrections Officers
- FOCP Friend of Court Supervisors
- PCJC Probate Court Juvenile Counselors
- SDEE Sheriff Deputies
- SDSP Sheriff Supervisors
- CPEA/PCSP Circuit Court Supervisors, Family and Probate Employees

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.

Data, Assumptions, and Plan Provisions

Actuarial Assumptions and Methods

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, 2019
Participant and Asset Information Collected as of	December 31, 2019
Cost Method (CO)	Individual Entry Age Level Percent of Pay Cost Method
Amortization Method (CO)	
Mental Health	16 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.
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Interest Rates (CO)	7.00%
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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 12/31/2019.

Data, Assumptions, and Plan Provisions

Retirement Rates (FE)

Age	General*	Road Commission	Sheriff**	Service	Sheriff**
50	20.0%	25.0%		25	50.0%
51	20.0%	25.0%		26	15.0%
52	20.0%	25.0%		27	15.0%
53	20.0%	25.0%		28	25.0%
54	20.0%	25.0%		29	25.0%
55	40.0%	25.0%		30+	100.0%
56	40.0%	25.0%			
57	40.0%	25.0%			
58	40.0%	25.0%			
59	40.0%	25.0%			
60	20.0%	15.0%	15.0%		
61	20.0%	15.0%	15.0%		
62	20.0%	40.0%	40.0%		
63	30.0%	20.0%	20.0%		
64	35.0%	20.0%	20.0%		
65	35.0%	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

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

The assumed retirement rates are based on a study of actual experience for the plan during 2013-2018. See the experience study report date December 13, 2019.

Data, Assumptions, and Plan Provisions

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	15.0%	2.0%	5.0%
	1	9.0%	2.0%	5.0%
	2	9.0%	2.0%	5.0%
	3	9.0%	2.0%	5.0%
	4	9.0%	2.0%	5.0%
	5	9.0%	2.0%	5.0%
	6+	9.0%	2.0%	2.0%
20		6.0%		
25		6.0%		
30		6.0%		
35		6.0%		
40		6.0%		
45		4.0%		
50		4.0%		
55		4.0%		
60		4.0%		
65		4.0%		

*Includes Mental Health Authority

The assumed withdrawal rates are based on a study of actual experience for the plan during 2013-2018. See the experience study report date December 13, 2019.

Data, Assumptions, and Plan Provisions

Annual Pay Increases (FE)

Pay increase assumption applies to all groups and includes 2.25% inflation. Pay increases compounded with inflation are based on service as follows:

<u>Service</u>	<u>Increase</u>
1	7.00%
2	6.00%
3	5.00%
4	4.00%
5	3.00%
6-19	2.25%
20+	2.25%

The assumed annual pay increases are based on a study of actual experience for the plan during 2013-2018 as well as the employer's average target increase for a career employee. See the experience study report date December 13, 2019.

Mortality Rates (FE)

Healthy:

General and Mental Health: Pub-2010 General mortality table with generational improvements from 2010 based on the SOA Scale MP-2019

Sheriff: Pub-2010 Public Safety mortality table with generational improvements from 2010 based on the SOA Scale MP-2019

Road Commission: RP-2014 Blue Collar mortality table with generational improvements from 2006 based on the SOA Scale MP-2019

Disabled:

General and Mental Health: Pub-2010 Non-Public Safety Disabled Retiree mortality table with generational improvements from 2010 based on the SOA Scale MP-2019

Sheriff: Pub-2010 Public Safety Disabled Retiree mortality table with generational improvements from 2010 based on the SOA Scale MP-2019

Road Commission: RP-2014 Disabled mortality table with generational improvements from 2006 based on the SOA Scale MP-2019

Beneficiaries:

Pub-2010 General mortality table with generational improvements from 2010 based on the SOA Scale MP-2019

Mortality assumptions are set to reflect general population trends.

Data, Assumptions, and Plan Provisions

Marital Status and Ages (FE)	100% of Participants assumed to be married with female spouse assumed to be 3 years younger
Payment Form Election (FE)	Single Life Annuity: 40% 50% Joint Life Annuity: 20% 100% Joint Life Annuity: 40%
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

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

Other Measurements

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

Other Measurements

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, 12/31/2018	\$ 161,261,832	\$ 44,566,307	\$ 38,452,080	\$ 244,280,219
Employer Contributions	3,555,904	1,071,447	1,067,495	5,694,846
Employee Contributions	1,074,567	480,922	274,675	1,830,164
Benefit Payments	(10,696,956)	(2,310,246)	(2,766,481)	(15,773,683)
Expenses	(137,219)	(37,922)	(32,719)	(207,860)
Investment Income	<u>10,578,429</u>	<u>2,954,176</u>	<u>2,523,117</u>	<u>16,055,722</u>
Actuarial Value of Assets, 12/31/2019	\$ 165,636,557	\$ 46,724,684	\$ 39,518,167	\$ 251,879,408

Other Measurements

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, 2019

Funded Position

1. Entry age accrued liability	\$195,709,934
2. Actuarial value of assets	\$165,636,557
3. Unfunded actuarial accrued liability (UAAL)	\$30,073,377
4. Funded Ratio, (2) / (1)	84.6%

Employer Contributions

5. Normal Cost	
(a) Total normal cost	\$2,372,524
(b) Expected participant contributions	(1,128,885)
(c) Net normal cost	<u>\$1,243,639</u>
6. Administrative expenses	\$138,096
7. Amortization of UAAL	3,465,218
8. Applicable interest	<u>512,651</u>
9. Total recommended contribution	\$5,359,604
10. Estimated fiscal year payroll	\$20,004,413
11. Recommended contribution as a percentage of estimated payroll	26.8%

Other Measurements

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, 2019

Funded Position

1. Entry age accrued liability	\$55,102,690
2. Actuarial value of assets	\$46,724,684
3. Unfunded actuarial accrued liability (UAAL)	\$8,378,006
4. Funded Ratio, (2) / (1)	84.8%

Employer Contributions

5. Normal Cost	
(a) Total normal cost	\$951,965
(b) Expected participant contributions	(553,367)
(c) Net normal cost	\$398,598
6. Administrative expenses	\$38,956
7. Amortization of UAAL	828,856
8. Applicable interest	133,839
9. Total recommended contribution	\$1,400,249
10. Estimated fiscal year payroll	\$8,920,174
11. Recommended contribution as a percentage of estimated payroll	15.7%

Other Measurements

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, 2019

Funded Position

1. Entry age accrued liability	\$44,042,843
2. Actuarial value of assets	\$39,518,167
3. Unfunded actuarial accrued liability (UAAL)	\$4,524,676
4. Funded Ratio, (2) / (1)	89.7%

Employer Contributions

5. Normal Cost	
(a) Total normal cost	\$377,856
(b) Expected participant contributions	<u>(252,782)</u>
(c) Net normal cost	\$125,074
6. Administrative expenses	\$32,948
7. Amortization of UAAL	519,498
8. Applicable interest	<u>71,157</u>
9. Total recommended contribution	\$748,677
10. Estimated fiscal year payroll	\$2,977,119
11. Recommended contribution as a percentage of estimated payroll	25.2%

Other Measurements

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	10	\$11,553,145	\$1,537,297
12/31/2015	11	2,288,565	285,230
12/31/2016	12	(1,795,649)	(211,286)
12/31/2017	13	(1,319,857)	(147,591)
12/31/2018	14	3,837,476	410,090
12/31/2019	15	15,509,697	1,591,478
Total		\$30,073,377	\$3,465,218

Mental Health

<u>Date Established</u>	<u>Years Remaining</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
12/31/2019	16	\$8,378,006	\$828,856

Road Commission

<u>Date Established</u>	<u>Years Remaining</u>	<u>Remaining Balance</u>	<u>Annual Payment</u>
12/31/2016	12	\$4,044,889	\$475,944
12/31/2017	13	(816,155)	(91,265)
12/31/2018	14	432,830	46,254
12/31/2019	15	863,112	88,565
Total		\$4,524,676	\$519,498

Total

\$42,976,059 **\$4,813,572**

Other Measurements

Demographic Information by Group

	General County	Mental Health	Road Commission	Plan Total
Active Participants				
Number accruing benefits	349	148	52	549
Average age	49.3	48.7	53.5	49.6
Average years of employment	16.7	13.1	21.3	16.2
Average pay*	\$60,255	\$62,761	\$64,007	\$61,286
Terminated Vested				
Number of Terminated Vested	73	60	9	142
Average age	50.2	50.0	51.2	50.2
Number with monthly benefits	64	49	8	121
Total deferred monthly benefits	\$58,143	\$54,039	\$7,817	\$119,998
Average deferred monthly benefit	\$908	\$1,103	\$977	\$992
Number due Employee Contribution Refund	9	11	1	21
Total Employee Contribution Dollars	\$51,733	\$96,049	\$116	\$147,898
Participants Receiving Benefits				
Number of Receiving Benefits	512	124	130	766
Average age	71.2	69.6	72.8	71.2
Total monthly benefits	\$892,092	\$194,289	\$227,375	\$1,313,755
Average monthly benefit	\$1,742	\$1,567	\$1,749	\$1,715

*Average Pay shown is average pay received during 2019

Other Measurements

Demographic Information by Group – Total Actives at 12/31/2019

Attained Age as of 12/31/2019	Credited Service								Average Pay*
	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 +	Total	
20 - 24	3							3	\$28,409
25 - 29	8	1						9	\$58,440
30 - 34	8	7	4					19	\$58,739
35 - 39	2	13	32	9				56	\$60,511
40 - 44	5	16	27	32	6			86	\$64,322
45 - 49	1	14	30	31	23	7		106	\$65,981
50 - 54	1	5	29	33	34	14	5	121	\$63,137
55 - 59	2	6	13	22	20	4	10	77	\$56,980
60	1	2	2	7			1	13	\$56,469
61			1	5	3	1		10	\$56,720
62	1	2	4	1	1		1	10	\$51,721
63			1	3	4	1		9	\$67,881
64			1	2	1		3	7	\$64,882
65 +	2	1	6	7	2		5	23	\$47,565
Total	34	67	150	152	94	27	25	549	\$61,286

*Average Pay shown is average pay received during 2019

Other Measurements

Demographic Information by Group – General County Actives at 12/31/2019

Attained Age as of 12/31/2019	Credited Service							Average Pay*	
	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 +		Total
20 - 24	3							3	\$28,409
25 - 29	6							6	\$58,865
30 - 34	4	3	3					10	\$60,478
35 - 39	2	4	29	6				41	\$60,607
40 - 44	2	6	21	22	5			56	\$66,090
45 - 49	1	4	21	20	17	2		65	\$66,954
50 - 54		2	18	22	23	8	2	75	\$60,311
55 - 59		2	9	16	12	4	7	50	\$53,021
60				6				6	\$52,469
61			1	3	2			6	\$50,001
62			4	1	1			6	\$43,427
63			1	3	1	1		6	\$60,841
64				2	1		1	4	\$67,599
65 +			6	6			3	15	\$50,856
Total	18	21	113	107	62	15	13	349	\$60,255

*Average Pay shown is average pay received during 2019

Other Measurements

Demographic Information by Group – Mental Health Actives at 12/31/2019

Attained Age as of 12/31/2019	Credited Service								Average Pay*
	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 +	Total	
20 - 24									
25 - 29	2	1						3	\$57,591
30 - 34	4	4						8	\$56,092
35 - 39		9	3	1				13	\$59,580
40 - 44	3	10	5	8				26	\$59,765
45 - 49		10	8	7	4	2		31	\$66,277
50 - 54	1	3	11	6	7	3	1	32	\$69,252
55 - 59	2	4	4	3	2		1	16	\$61,681
60	1	1	2	1				5	\$47,958
61				2	1			3	\$63,729
62	1	2					1	4	\$64,163
63					1			1	\$69,019
64							1	1	\$68,411
65 +	2	1					2	5	\$51,220
Total	16	45	33	28	15	5	6	148	\$62,761

*Average Pay shown is average pay received during 2019

Other Measurements

Demographic Information by Group – Road Commission Actives at 12/31/2019

Attained Age as of 12/31/2019	Credited Service								Average Pay*
	< 5	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 +	Total	
20 - 24									
25 - 29									
30 - 34			1					1	\$62,519
35 - 39				2				2	\$64,587
40 - 44			1	2	1			4	\$69,196
45 - 49			1	4	2	3		10	\$58,739
50 - 54				5	4	3	2	14	\$64,299
55 - 59				3	6		2	11	\$68,139
60		1					1	2	\$89,747
61						1		1	\$76,011
62									
63					2			2	\$88,434
64			1				1	2	\$57,681
65 +				1	2			3	\$25,020
Total		1	4	17	17	7	6	52	\$64,007

*Average Pay shown is average pay received during 2019

Other Measurements

Demographic Information by Group – Terminated Vested at 12/31/2019

Due Only Employee Contributions Refund

Attained Age as of 12/31/2019	General		Mental Health		Road Commission		Total	
	#	Dollars	#	Dollars	#	Dollars	#	Dollars
20 - 39	5	\$31,277	4	\$49,242	0	\$0	9	\$80,519
40 - 49	1	2,726	4	31,988	1	116	6	34,830
50 - 59	2	17,723	2	9,208	0	0	4	26,931
60 +	1	7	1	5,611	0	0	2	5,618
Total	9	\$51,733	11	\$96,049	1	\$116	21	\$147,898

Have a Vested Monthly Benefit Payable

Attained Age as of 12/31/2019	General		Mental Health		Road Commission		Total	
	#	Average Benefit	#	Average Benefit	#	Average Benefit	#	Average Benefit
20 - 39	7	\$955	5	\$1,014	0	\$0	12	\$980
40 - 49	18	886	16	1,196	4	812	38	1,009
50 - 59	33	976	24	1,110	3	1,180	60	1,040
60 +	6	552	4	795	1	1,028	11	683
Total	64	\$908	49	\$1,103	8	\$977	121	\$992

Other Measurements

Demographic Information by Group – Participants Receiving Benefits at 12/31/2019

Attained Age as of 12/31/2019	General		Mental Health		Road Commission		Total	
	#	Average Benefit	#	Average Benefit	#	Average Benefit	#	Average Benefit
<40	0	\$0	0	\$0	0	\$0	0	\$0
40 - 49	0	0	0	0	1	932	1	932
50 - 54	6	3,627	1	1,214	1	3,218	8	3,274
55 - 59	33	2,780	8	2,638	4	2,170	45	2,701
60 - 64	86	2,020	25	1,801	23	1,843	134	1,949
65 - 69	112	1,850	31	1,440	23	2,158	166	1,816
70 - 74	130	1,730	33	1,510	27	2,223	190	1,762
75 - 79	69	1,329	17	1,252	23	1,599	109	1,374
80 - 84	33	1,169	4	1,412	13	1,039	50	1,155
85 - 89	23	1,090	4	1,270	8	1,060	35	1,104
90 +	20	877	1	481	7	530	28	776
Total	512	\$1,742	124	\$1,567	130	\$1,749	766	\$1,715

Other Measurements

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
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

Other Measurements

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
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
Circuit Court Family Supervisors, Family & Probate Employees Modified	48	G	Rule of 80, 60 & 8, 55 & 25	Graded	75.00%	N	3	1/12009