

Berrien County Employees' Retirement System

Year Ended
December 31,
2017

Financial
Statements

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BERRIEN COUNTY EMPLOYEES' RETIREMENT SYSTEM

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INDEPENDENT AUDITORS' REPORT

June 27, 2018

Board of Commissioners
Berrien County Employees' Retirement System
St. Joseph, Michigan

We have audited the accompanying statement of fiduciary net position of the *Berrien County Employees' Retirement System* (the "System"), a pension trust fund of the County of Berrien, Michigan, as of December 31, 2017 and the related statement of changes in fiduciary net position for the year then ended and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Independent Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States;. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on auditor judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System, as of December 31, 2017, and the changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Reporting Entity

As discussed in Note 1, the financial statements present only the Berrien County Employees' Retirement System pension trust fund and do not purport to, and do not, present fairly the financial position of the County of Berrien as of December 31, 2017, and the changes in its financial position for the year then ended, in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the schedules, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated June 27, 2018, on our consideration of the County of Berrien, Michigan's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the System's internal control over financial reporting and compliance.



FINANCIAL STATEMENTS

**BERRIEN COUNTY
EMPLOYEES' RETIREMENT SYSTEM**

Statement of Fiduciary Net Position
December 31, 2017

Assets	
Cash and cash equivalents	\$ 885,604
Investments in mutual funds, at fair value:	
Equity	100,249,695
Fixed income	50,090,122
Commodities	5,127,262
Real estate	17,205,771
Accounts receivable	<u>14,626</u>
Total assets	173,573,080
Liabilities	
Accounts payable	<u>173,156</u>
Net position restricted for pension benefits	<u><u>\$ 173,399,924</u></u>

The accompanying notes are an integral part of these financial statements.

**BERRIEN COUNTY
EMPLOYEES' RETIREMENT SYSTEM**

**Statement of Changes in Fiduciary Net Position
For the Year Ended December 31, 2017**

Additions

Investment income (expense):

Net change in fair value of investments	\$ 23,193,359
Interest and dividends	550
Less investment expenses	<u>(625,361)</u>

Net investment income	<u>22,568,548</u>
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Contributions:

Employer	7,727,058
Employees	<u>2,932,496</u>

Total contributions	<u>10,659,554</u>
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Total additions	<u>33,228,102</u>
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Deductions

Pension benefit payments	13,275,910
Contribution refunds	532,329
Administrative expenses	<u>86,025</u>

Total deductions	<u>13,894,264</u>
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Change in net position	19,333,838
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Net position, beginning of year	<u>154,066,086</u>
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Net position, end of year	<u><u>\$ 173,399,924</u></u>
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The accompanying notes are an integral part of these financial statements.

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NOTES TO FINANCIAL STATEMENTS

BERRIEN COUNTY EMPLOYEES' RETIREMENT SYSTEM

Notes to Financial Statements

1. SYSTEM DESCRIPTION

General. The County of Berrien, Michigan ("the County") administers the Berrien County Employees' Retirement System (the "System"), a single-employer defined benefit pension plan authorized by Section 12a of Act No. 156 of the Public Acts of 1851, which was adopted and established by the County in accordance with Michigan Compiled Laws Section 46.12a. Employer and employee contributions and benefit provisions are authorized and may be amended by County Board resolution and benefits may vary pursuant to collective bargaining agreements. Substantially all employees are covered by the System. Upon retirement, the System pays a benefit percentage (depending on group), calculated using the percentage of final average compensation times years of credited service.

The System is governed by the Finance Committee of the Berrien County Board of Commissioners. The Finance Committee is assisted by a Pension investment Trust Committee made up of three individuals appointed by the Board of Commissioners and the County's Financial Consultant.

The System is administered by the County; accordingly, it is included as a pension trust fund in the County's financial statements. System amendments are under the authority of County Ordinances. Changes in required contributions are subject to collective bargaining agreements and approval by the Berrien County Board of Commissioners.

System membership. System membership consisted of the following at December 31, 2017:

Retirees and beneficiaries currently receiving benefits	685
Terminated employees entitled to but not yet receiving benefits	65
Vested active participants	<u>894</u>
Total membership	<u><u>1,644</u></u>

Benefits provided. System members may retire at age 55 or 60 with 5, 8, 10 or 25 years of credited service depending on bargaining unit. Members are vested after completing 5, 8 or 10 years of credited service. Retirement options that provide for survivor benefits are available to members. The System also provides death and disability benefits. If a member leaves employment or dies before vesting, accumulated member contributions plus interest are refunded to the member or designated beneficiary.

Contributions. The contribution requirements of System members and the County are established and may be amended by the County Board of Commissioners. System members are required to contribute 4.5% to 10.49% to the System, depending on their bargaining unit and hire date. The County is required to contribute at actuarially determined rates expressed as a percentage of covered payroll. The County's contribution rate for the year ended December 31, 2017 ranged from 7.59% to 30.48% of projected valuation payroll.

BERRIEN COUNTY EMPLOYEES' RETIREMENT SYSTEM

Notes to Financial Statements

Bargaining Unit / Employee Group	Benefits Multiplier	Employee Contribution Percentage
AFSCME (probate and juvenile court bargaining):	2.00%	7.06%
Riverwood		
Union members	2.2% - 1.7%	4.50%
Non-union members	2.20%	5.00%
Courthouse elected	2.2% - 1.7%	4.50%
Courthouse appointed	2.20%	5.00%
General non-bargaining members	2.20%	5.00%
FOPLC civilian members	2.20%	6.89%
Teamster FOC members	2.20%	8.00%
Road department	2.00%	6.00%
Sheriff POLC command unit	2.80%	10.49%
Police officers labor council (POLC)	2.80%	8.00%

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of accounting. The System's financial statements are prepared on the accrual basis of accounting. Member contributions are recognized in the period in which they are due. The County's contributions are recognized when due and the employer has made a formal commitment to provide them. Benefits and refunds are recognized when due and payable in accordance with the terms of the System.

Valuation of investments. The System's investments are stated at fair value which is determined as follows: (a) short-term investments are reported at cost, which approximates fair value; (b) securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates; (c) investments for which market quotations are not readily available are valued at their fair values as determined by the custodian under the direction of the System's Board of Directors, with the assistance of a valuation service; and (d) cash deposits are reported at carrying amounts which reasonably approximates fair value.

Administration. Administrative costs are financed through investment earnings.

3. DEPOSITS AND INVESTMENTS

Deposits

Custodial Credit Risk - Deposits. Deposits are exposed to custodial credit risk if they are not covered by depository insurance. At year-end, the carrying amount of the System's deposits was \$885,604. Because it is infeasible to allocate risk to individual component units or pool participants, aggregate cash and investment categorizations are presented in the County's basic financial statements.

Investments

The Michigan Public Employees Retirement Systems' Investment Act, Public Act 314 of 1965, as amended, authorizes the System to invest in stocks, government and corporate securities, mortgages, real estate, and various other investment instruments, subject to certain limitations.

BERRIEN COUNTY EMPLOYEES' RETIREMENT SYSTEM

Notes to Financial Statements

Investment allocation policy. The System's policy in regard to the allocation of invested assets is established and may be amended by its Board of Trustees. The policy pursues an investment strategy that protects the financial health of the System and reduces risk through the prudent diversification of the portfolio across a broad selection of distinct asset classes. System assets will be invested in the broad investment categories and asset classes to achieve the allocation targets below. Recognizing that asset returns may vary, causing fluctuations in the relative dollar value levels of assets within classes, the System may not maintain strict adherence to the targets in the short-term, but may allow the values to fluctuate within these ranges. Over the long-term, the System will strive to adhere to the given targets as financially practicable and move toward target allocations in a prudent manner consistent with its fiduciary duty.

The adopted asset allocation policy as of December 31, 2017, is as follows:

Asset class	Target Allocation	Allocation Range
Equities	61%	35% to 65%
Fixed income	30%	20% to 40%
Other investments	9%	0% to 15%
Cash	0%	0% to 5%
Total investments	<u>100%</u>	

Investments. The System's investments are primarily held in a bank administered trust fund. Following is a summary of the System's investments as of December 31, 2017:

Mutual funds at fair value, as determined by quoted market price:

Equity:

Russell Large Cap US Eq Fund	\$ 26,441,643
Russell 1000 Index Fund Series 1	34,381,728
Russell Small Cap Fund	12,049,514
Russell International Fund	20,501,405
Russell Emerging Markets Fund	3,480,887
Russell Global Infrastructure Fund	3,394,518

Fixed income -

Russell Quantitative Bond Fund	50,090,122
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Commodities -

Russell Commodities Fund	5,127,262
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Real estate:

Russell Real Estate Equity Fund	13,757,482
Russell Real Estate Security Fund	3,448,289

Total investments \$ 172,672,850

BERRIEN COUNTY EMPLOYEES' RETIREMENT SYSTEM

Notes to Financial Statements

Credit risk. Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The System's investment policy emphasizes appropriate risk/return parameters and compliance with Public Act 314, and gives discretionary authority to its investment managers as opposed to establishing specific credit rating benchmarks. The System invests in mutual funds, which are comprised of various securities. The percentages below represent the percent of the mutual funds that are invested in securities with a particular rating. As of December 31, 2017, the System's investments in debt securities (i.e. - fixed income mutual funds) were rated by Standard & Poor's as follows:

Rating	Percentage
AAA	65.4%
AA	8.9%
A	10.8%
BBB	14.9%
	100.0%

Custodial credit risk. For investments, custodial credit risk is the risk that, in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The System's investment policy requires that securities be held in trust by a third-party institution in the System's name or its nominee custodian's name or in bearer form. Although uninsured and unregistered, the System's investments are not exposed to custodial credit risk since the securities are held by the counterparty's trust department or agent in the System's name. Short-term investments in money market funds and open-end mutual funds are not exposed to custodial credit risk because their existence is not evidenced by securities that exist in physical or book form.

Concentration of credit risk. Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. At December 31, 2017, the System's investment portfolio was not concentrated to a particular issuer due to the only investments being in shares of mutual funds.

Interest rate risk. Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The System's investment policy does not discuss the maximum maturity for any single fixed income security or the weighted average portfolio maturity.

BERRIEN COUNTY EMPLOYEES' RETIREMENT SYSTEM

Notes to Financial Statements

The System invests in mutual funds, which are comprised of various securities. The percentages below represent the percent of the mutual funds that are invested in securities with a particular maturity. As of December 31, 2017, maturities of the System's debt securities (i.e. - fixed income mutual funds), were as follows:

Maturity Distribution (Years)	Percentage
0 to 3	21.3%
3 to 5	19.2%
5 to 7	20.1%
7 to 10	23.6%
10 to 15	1.5%
15 to 20	2.4%
20 to 25	4.0%
25+	7.9%
	100.0%

Rate of return. For the year ended December 31, 2017, the annual money-weighted rate of return on System investments, net of investment expenses, was 13.71%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Fair Value Measurements - The System categorizes the fair value measurements of its investments within the fair value hierarchy established by generally accepted accounting principles. Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are inputs - other than quoted prices included within Level 1- that are observable for the asset or liability, either directly or indirectly. Finally, Level 3 inputs are unobservable and are based on estimates and assumptions. These levels are determined by the management's review of the type and substance of investments held by the System. The System has the following recurring fair value measurements as of December 31, 2017:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Fair Value at December 31, 2017
Investments at fair value:				
Equity mutual funds	\$ -	\$ 100,249,695	\$ -	\$ 100,249,695
Fixed income mutual funds	-	50,090,122	-	50,090,122
Commodities mutual funds	-	5,127,262	-	5,127,262
Real estate mutual funds	-	17,205,771	-	17,205,771
		\$ 172,672,850		\$ 172,672,850
Total investments at fair value	\$ -	\$ 172,672,850	\$ -	\$ 172,672,850

BERRIEN COUNTY EMPLOYEES' RETIREMENT SYSTEM

Notes to Financial Statements

4. NET PENSION LIABILITY OF THE COUNTY

Net pension liability. The County's net pension liability was measured as of December 31, 2017, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2017.

Total pension liability	\$ 252,911,962
System fiduciary net position	<u>173,399,924</u>
Net pension liability	<u>\$ 79,512,038</u>
System fiduciary net position as a percentage of the total pension liability	68.56%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of December 31, 2017, using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75 percent
Salary increases	3.55 to 6.25 percent, including inflation
Investment rate of return	7.50 percent, net of pension system investment expense, including inflation

Mortality rates were based on fully generational RP-2014 healthy annuitant tables after adjustment to the base year 2006 for males and females with MP-2015 mortality improvement scales. The margin for future mortality improvement is included in the MP-2015 mortality improvement scales.

The actuarial assumptions used in the December 31, 2017 valuation were based on the results of an actuarial experience study conducted in 2016 which covered the past 5 years experience (2011-2015). The next assumption review is scheduled for 2020.

BERRIEN COUNTY EMPLOYEES' RETIREMENT SYSTEM

Notes to Financial Statements

The long-term expected rate of return on pension System investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension System's target asset allocation as of December 31, 2017 (see the discussion of the System's investment allocation policy) are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return	Expected Money-Weighted Rate of Return
U.S. large cap equities	34.00%	5.61%	1.91%
U.S. small cap equities	7.00%	8.62%	0.60%
International equities	12.00%	6.97%	0.84%
Core fixed income	2.00%	7.95%	0.16%
Global real estate	2.00%	6.51%	0.13%
Global listed infrastructure	2.00%	6.57%	0.13%
Commodities	3.00%	3.38%	0.10%
U.S. private real estate	8.00%	5.09%	0.41%
U.S. aggregate	30.00%	0.53%	0.16%
	<u>100.00%</u>		4.44%
Inflation			2.75%
Risk adjustments			<u>0.31%</u>
Investment rate of return			<u>7.50%</u>

Discount rate. The discount rate used to measure the total pension liability was 7.15%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that County contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be exhausted in the year 2069. Therefore, the discount rate represents the single equivalent rate resulting from discounting at the long-term expected rate of return until 2069, and discounting with the 20-year AA municipal bond index rate of 3.31% thereafter. This projection is done on a closed group basis, per GASB requirements. On an ongoing, open group basis, it is unlikely that the funds will be depleted because funding progress is frequently reviewed and adjustments are made to contribution levels.

**BERRIEN COUNTY
EMPLOYEES' RETIREMENT SYSTEM**

Notes to Financial Statements

Sensitivity of the net pension liability to changes in the discount rate. The following presents the net pension liability of the County, calculated using the discount rate of 7.15 percent, as well as what the County's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.15 percent) or 1-percentage-point higher (8.15 percent) than the current rate:

	1% Decrease (6.15%)	Current Discount Rate (7.15%)	1% Increase (8.15%)
County's net pension liability	\$ 109,890,691	\$ 79,512,038	\$ 54,068,982



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REQUIRED SUPPLEMENTARY INFORMATION

**BERRIEN COUNTY
EMPLOYEES' RETIREMENT SYSTEM**

Required Supplementary Information
Employees' Retirement System

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios

	2017	2016	2015	2014
Total pension liability				
Service cost	\$ 6,010,952	\$ 6,407,413	\$ 4,694,759	\$ 4,669,602
Interest on total pension liability	17,216,098	16,796,275	15,655,309	15,305,513
Benefit changes	115,505	79,619	(7,048)	112,918
Difference between expected and actual experience	(1,668,850)	(7,472,589)	694,777	(3,197,192)
Assumption changes	(456,848)	(14,114,633)	48,836,330	-
Benefit payments and refunds	(13,808,240)	(13,058,873)	(12,703,945)	(12,357,967)
Net change in total pension liability	<u>7,408,617</u>	<u>(11,362,788)</u>	<u>57,170,182</u>	<u>4,532,874</u>
Total pension liability, beginning of year	<u>245,503,345</u>	<u>256,866,133</u>	<u>199,695,951</u>	<u>195,163,077</u>
Total pension liability, end of year	<u>252,911,962</u>	<u>245,503,345</u>	<u>256,866,133</u>	<u>199,695,951</u>
Plan fiduciary net position				
Employer contributions	7,727,058	6,668,570	7,235,958	7,172,057
Employee contributions	2,932,496	2,790,452	2,829,257	2,742,953
Pension plan net investment income	22,568,548	11,732,141	(2,091,339)	11,163,083
Benefit payments and refunds	(13,808,239)	(13,058,873)	(12,703,946)	(12,357,967)
Pension plan administrative expense	(86,025)	(67,327)	(66,731)	(553,509)
Net change in plan fiduciary net position	<u>19,333,838</u>	<u>8,064,963</u>	<u>(4,796,801)</u>	<u>8,166,617</u>
Plan fiduciary net position, beginning of year	<u>154,066,086</u>	<u>146,001,123</u>	<u>150,797,924</u>	<u>142,631,307</u>
Plan fiduciary net position, end of year	<u>173,399,924</u>	<u>154,066,086</u>	<u>146,001,123</u>	<u>150,797,924</u>
Net pension liability	<u>\$ 79,512,038</u>	<u>\$ 91,437,259</u>	<u>\$ 110,865,010</u>	<u>\$ 48,898,027</u>
Plan fiduciary net position as a percentage of total pension liability	68.6%	62.8%	56.8%	75.5%
Covered payroll	<u>\$ 45,802,966</u>	<u>\$ 44,052,971</u>	<u>\$ 43,865,207</u>	<u>\$ 41,465,482</u>
Net pension liability as a percentage of covered payroll	173.6%	207.6%	252.7%	117.9%

Note: GASB 67 was implemented in fiscal year 2014. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

Changes in assumptions - In 2016, amounts reported as changes in assumptions resulted from decreases in the inflation rate used to calculate the discount rate, decreases in the expected salary increases, change in the single discount rate, and changes in the mortality tables. In 2017, amounts reported as changes in assumptions resulted from changes in the single discount rate.

**BERRIEN COUNTY
EMPLOYEES' RETIREMENT SYSTEM**

Required Supplementary Information
Employees' Retirement System

Schedule of the Employer's Net Pension Liability

Fiscal Year Ended	Total Pension Liability	Plan Fiduciary Net Pension	Net Pension Liability	Plan Fiduciary Net Position as Percentage of Total Pension Liability	Covered Payroll	Net Pension Liability as Percentage of Covered Payroll
12/31/2014	\$ 199,695,951	\$ 150,797,924	\$ 48,898,027	75.5%	\$ 41,465,482	117.9%
12/31/2015	256,866,133	146,001,123	110,865,010	56.8%	43,865,207	252.7%
12/31/2016	245,503,345	154,066,086	91,437,259	62.8%	44,052,971	207.6%
12/31/2017	252,911,962	173,399,924	79,512,038	68.6%	45,802,966	173.6%

Note: GASB 67 was implemented in fiscal year 2014. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

**BERRIEN COUNTY
EMPLOYEES' RETIREMENT SYSTEM**

Required Supplementary Information
Employees' Retirement System

Schedule of Investment Returns

Fiscal Year Ended	Annual Money-Weighted Rate of Return, Net of Investment Expense
12/31/2014	9.50%
12/31/2015	-1.26%
12/31/2016	3.50%
12/31/2017	13.71%

Note: GASB 67 was implemented in fiscal year 2014. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

**BERRIEN COUNTY
EMPLOYEES' RETIREMENT SYSTEM**

Required Supplementary Information
Employees' Retirement System

Schedule of Employer Contributions

Fiscal Year Ended	Actuarial Valuation Date	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
12/31/2014	12/31/2012	\$ 7,172,057	\$ 7,172,057	\$ -	\$ 41,465,482	17.3%
12/31/2015	12/31/2013	7,235,958	7,235,958	-	43,865,207	16.5%
12/31/2016	12/31/2014	6,668,570	6,668,570	-	44,052,971	15.1%
12/31/2017	12/31/2015	7,727,058	7,727,058	-	45,802,966	16.9%

Note: GASB 67 was implemented in fiscal year 2014. This schedule is being built prospectively. Ultimately, 10 years of data will be presented.

Notes to Schedule of Contributions

Valuation date Actuarially determined contribution rates are calculated as of December 31 that is 12 months prior to the beginning of the fiscal year for which the contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry-age normal
Amortization method	Level percent of payroll, closed
Remaining amortization period	20 years
Asset valuation method	Market value with 5 year smoothing of gains and losses.
Inflation	3.25%
Salary increases	3.55%-6.25% including inflation
Investment rate of return	7.50% net of pension plan investment expense, including inflation
Mortality rates	RP-2014 healthy annuitant tables after adjustment to the base year 2006 for males and females with MP-2015 mortality improvement scales. The margin for future mortality improvement is included in the MP-2015 mortality improvement scales.

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SUPPLEMENTARY INFORMATION

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INDEPENDENT AUDITORS' REPORT
ON THE SCHEDULE OF CHANGES IN FIDUCIARY NET POSITION BY COMPONENT

June 27, 2018

Board of Commissioners
Berrien County Employees' Retirement System
St. Joseph, Michigan

Report on the Schedule

We have audited the fiduciary net position as of December 31, 2017 and the changes in fiduciary net position for the year then ended, included in the accompanying Schedule of Changes in Fiduciary Net Position by Component (the "Schedule") of the *Berrien County Employees' Retirement System*. We have also audited the fiduciary net position of each individual employer as of December 31, 2017 and the changes in fiduciary net position of each employer for the year then ended, included in the accompanying Schedule.

Management's Responsibility for the Schedule

Management is responsible for the preparation and fair presentation of the Schedule in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the Schedule that is free from material misstatement, whether due to fraud or error.

Independent Auditors' Responsibility

Our responsibility is to express an opinion on the Schedule based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedule is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Schedule. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the fiduciary net position and the changes in fiduciary net position included in the Schedule, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the fiduciary net position and the changes in fiduciary net position included in the Schedule in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the fiduciary net position and the changes in fiduciary net position included in the Schedule.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the Schedule referred to above presents fairly, in all material respects, the fiduciary net position of the Berrien County Employees' Retirement System as of December 31, 2017, and the changes in fiduciary net position for the year then ended, in accordance with accounting principles generally accepted in the United States of America. Also, in our opinion, the Schedule referred to above presents fairly, in all material respects, the fiduciary net position of each individual employer as of December 31, 2017, and the changes in fiduciary net position of each individual employer for the year then ended, in accordance with accounting principles generally accepted in the United States of America.

Restriction on Use

Our report is intended solely for the information and use of the Berrien County Employees' Retirement System management, Board of Trustees, participating employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

Rehmann Lobson LLC

**BERRIEN COUNTY
EMPLOYEES' RETIREMENT SYSTEM**

**Schedule of Changes in Fiduciary Net Position by Component
For the Year Ended December 31, 2017**

	County General	Mental Health	Total
Additions			
Investment income (expense):			
Net change in fair value of investments	\$ 19,893,072	\$ 3,300,287	\$ 23,193,359
Interest and dividends	473	77	550
Less investment expenses	(537,695)	(87,666)	(625,361)
Net investment income	<u>19,355,850</u>	<u>3,212,698</u>	<u>22,568,548</u>
Contributions:			
Employer	7,035,002	692,056	7,727,058
Employees	2,503,473	429,023	2,932,496
Total contributions	<u>9,538,475</u>	<u>1,121,079</u>	<u>10,659,554</u>
Total additions	<u>28,894,325</u>	<u>4,333,777</u>	<u>33,228,102</u>
Deductions			
Pension benefit payments	12,196,954	1,078,956	13,275,910
Contribution refunds	441,578	90,751	532,329
Administration	73,966	12,059	86,025
Total deductions	<u>12,712,498</u>	<u>1,181,766</u>	<u>13,894,264</u>
Change in net position	16,181,827	3,152,011	19,333,838
Net position, beginning of year	<u>132,676,165</u>	<u>21,389,921</u>	<u>154,066,086</u>
Net position, end of year	<u>\$ 148,857,992</u>	<u>\$ 24,541,932</u>	<u>\$ 173,399,924</u>