



Cavanaugh Macdonald
CONSULTING, LLC

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Report on the Annual Valuation of the Mississippi Municipal Retirement Systems

Prepared as of June 30, 2017





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

October 19, 2017

Board of Trustees
Mississippi Municipal Retirement Systems
429 Mississippi Street
Jackson, MS 39201-1005

Ladies and Gentlemen:

Presented in this report are the results of the annual actuarial valuation covering the participation of 17 municipalities in the Mississippi Municipal Retirement Systems (MRS). MRS is a closed defined benefit pension plan that was closed to new members beginning July 1, 1987. The purpose of the valuation was to measure the Systems' funding progress and to determine the contribution rates necessary for the period beginning October 1, 2018. The results may not be applicable for other purposes.

The date of the valuation was June 30, 2017.

The valuation was based upon data, furnished by the Executive Director and the PERS staff, concerning active, inactive and retired members along with pertinent financial information. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. The complete cooperation of the PERS staff in furnishing materials requested is hereby acknowledged with appreciation.

Your attention is directed particularly to the presentation of contribution rates on page 8 and the comments on page 10. Please note that with the adoption by the PERS Board in 2011 of a new funding policy which extended contributions beyond 2020 and generated an ultimate asset reserve level equal to projected benefit payments, we have calculated the contribution rates based on this new policy and the old funding policy. Ultimately, the municipality has the option of which contribution rate to set as their certified millage rate.

Since the previous valuation, assumed rates of mortality have been revised to reflect the results of the experience investigation for the four-year period ending June 30, 2016. These revised changes were adopted by the Board on April 25, 2017.

To the best of our knowledge, this report is complete and accurate. The valuation was performed by, and under the supervision of, independent actuaries who are members of the American Academy of Actuaries with experience in performing valuations for public retirement systems. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

The valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board. We have reviewed the actuarial methods, including the asset valuation method, and continue to believe they are appropriate for the purpose of determining contribution rates.

Future actuarial results may differ significantly from the current results 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 or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

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Board of Trustees
October 19, 2017
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This actuarial valuation was performed to determine the adequacy of statutory contributions to fund the plan. The asset values used to determine unfunded liabilities and funded ratios are not market values but less volatile market related values. A smoothing technique is applied to market values to determine the market related values. The unfunded liability amounts and funded ratios using the market value of assets would be different. The interest rate used for determining liabilities is based on the expected return on assets. Therefore, liability amounts in this report cannot be used to assess a settlement of the obligation.

The actuarial calculations were performed by qualified actuaries according to generally accepted actuarial procedures and methods. The calculations are based on the current provisions of the Systems, and on actuarial assumptions that are, in the aggregate, internally consistent and reasonably based on the actual experience of the Systems. In addition, the valuation was completed in compliance with the laws governing the Systems. Those laws state, as a financing objective, that contributions will be in amounts sufficient to maintain actuarial soundness for the Systems for all future years.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Edward A. Macdonald'.

Edward A. Macdonald, ASA, FCA, MAAA
President

A handwritten signature in blue ink, appearing to read 'Edward J. Koebel'.

Edward J. Koebel, EA, FCA, MAAA
Principal and Consulting Actuary

A handwritten signature in blue ink, appearing to read 'Jonathan T. Craven'.

Jonathan T. Craven, ASA, EA, FCA, MAAA
Consulting Actuary

EAM/EJK/JTC:bdm



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**REPORT ON THE ANNUAL VALUATION OF THE
MISSISSIPPI MUNICIPAL RETIREMENT SYSTEMS
PREPARED AS OF JUNE 30, 2017**

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. This report, prepared as of June 30, 2017, presents the results of the annual actuarial valuation of the 17 Systems. For convenience of reference, the principal results of the valuation and a comparison with the preceding year's results are summarized below. The current valuation reflects any amendments to the Systems effective through July 1, 2017.

SUMMARY OF PRINCIPAL RESULTS

VALUATION DATE	June 30, 2017	June 30, 2016
Active members included in valuation		
Number	6	8
Annual compensation	\$ 321,243	\$ 419,000
Retirees		
Number	1,754	1,798
Annual allowances	\$ 33,751,528	\$ 34,088,404
Assets		
Market related actuarial value	\$ 157,674,330	\$ 159,159,590
Market value	\$ 158,569,612	\$ 154,628,833
Unfunded employer liability	\$ 164,087,160	\$ 171,531,720

2. Actuarial present values for each Municipality are shown in Section III.
3. Rates of contribution payable by employers are given in Section IV and comments on the valuation results are given in Section V.



4. The current funding policy was adopted by the Board in February, 2011. In this funding policy, contributions were extended past 2020 and an employer contribution rate, expressed as a millage rate tax applied to assessed property values, is established that will generate an ultimate asset reserve level equal to a reasonable percentage (initially 100% - 150%) of the next year's projected benefit payment. At that point, employer contributions are set equal to the fiscal year's projected benefit payments (basically on a pay as you go basis) and adjusted as necessary to maintain the assets at the established reserve level. This calculation is performed using projected cash flow analysis using the current market value of assets as of the valuation date, a 6.50% assumption on investment earnings and an assumption that assessed property values will remain level over time. Schedule H of this report shows the projected cash flow of each municipality, including the certified millage rates, based on the funding policy.
5. Although the development of the certified millage rates assume a 6.50% investment rate on cash flow, the development of liabilities and funding progress assume the Board-adopted investment return rate of 7.75%. Since the trust fund assets are commingled with the PERS trust fund assets, it has the same investment portfolio as the PERS System.
6. Since the previous valuation, the following changes were made to the benefit provisions:
 - The City of Tupelo granted a 3% ad-hoc benefit increase for members who were retired for at least one full fiscal year as of September 30, 2015.
 - The City of Vicksburg increased the minimum monthly allowance from \$1,415 to \$1,515.
7. Since the previous valuation, assumed rates of mortality have been revised to reflect the results of the experience investigation for the four-year period ending June 30, 2016 and adopted by the Board on April 25, 2017. There were no other changes in actuarial assumptions since the last valuation.
8. Schedule A of this report presents the development of the actuarial value of assets. Schedule B details the actuarial assumptions and methods employed. Schedule C gives a summary of the benefit and contribution provisions of the plan.



9. GASB 67 replaced GASB 25 for accounting results and a separate GASB 67 report is prepared for the Board. For continuity and informational purposes, we have included disclosure information in Section VIII. In the development of this disclosure information and the Actuarially Determined Employer Contribution (ADEC) rate, we have assumed the current Board adopted investment return rate of 7.75% and a closed amortization period of 17 years, which was established in the prior funding policy.
10. The table on the following page provides a ten-year history of some pertinent figures.



Mississippi Municipal Retirement Systems

Comparative Schedule

Valuation Date Jun 30*	Active Members				Retired Lives				Valuation Results (\$ thousands)		
	Number	Payroll (\$ thousands)	Average Salary	% increase from previous year	Number	Active/ Retired Ratio	Annual Benefits (\$ thousands)	Benefits as % of Payroll	Employer Liability	Valuation Assets	Unfunded Employer Liability
2008	35	\$1,713	\$48,936	5.3%	2,123	.02	\$35,455.8	2,069.8%	\$368,780	\$208,479	\$160,301
2009	31	1,608	51,884	6.0	2,090	.01	35,456.7	2,205.0	381,655	191,179	190,476
2010	27	1,425	52,764	1.7	2,056	.01	35,418.6	2,485.5	373,310	175,988	197,322
2011	25	1,357	54,274	2.9	2,016	.01	35,164.6	2,591.3	363,953	167,604	196,349
2012	21	1,131	53,869	(0.7)	1,978	.01	35,097.3	3,103.2	356,829	155,484	201,345
2013	16	794	49,615	(7.9)	1,941	.01	35,105.9	4,421.4	349,737	153,241	196,496
2014	14	727	51,953	4.7	1,890	.01	34,723.5	4,776.3	340,505	157,970	182,535
2015	11	579	52,661	1.4	1,849	.01	34,478.4	5,954.8	341,617	162,616	179,001
2016	8	419	52,375	(0.5)	1,798	.00	34,088.4	8,135.7	330,691	159,160	171,531
2017	6	321	53,541	2.2	1,754	.00	33,751.5	10,514.5	321,761	157,674	164,087

* Valuation date is as of September 30 for years prior to 2013.



SECTION II – MEMBERSHIP DATA

Data regarding the membership of the Systems for use as a basis for the valuation were furnished by the PERS office. The following tables summarize the membership of the system as of June 30, 2017 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

Active Members

Employers	Number	Payroll	Salary	Group Averages	
				Age*	Service*
Biloxi	0	\$0	\$0	0.0	0.0
Clarksdale	1	54,821	54,821	65.4	43.0
Clinton	2	101,772	50,886	61.5	37.0
Columbus	0	0	0	0.0	0.0
Greenville	0	0	0	0.0	0.0
Greenwood	1	41,365	41,365	67.3	44.8
Gulfport	0	0	0	0.0	0.0
Hattiesburg	1	53,825	53,825	66.7	39.3
Jackson	0	0	0	0.0	0.0
Laurel	0	0	0	0.0	0.0
McComb	0	0	0	0.0	0.0
Meridian	1	69,460	69,460	81.6	50.0
Natchez	0	0	0	0.0	0.0
Pascagoula	0	0	0	0.0	0.0
Tupelo	0	0	0	0.0	0.0
Vicksburg	0	0	0	0.0	0.0
Yazoo City	0	0	0	0.0	0.0
Total in MRS	6	\$321,243	\$53,541	67.3	41.8

* Years

Retired Lives

Employers	Retirement	Disability	Survivor	Total	Annual Benefit
Biloxi	46	5	50	101	\$2,232,769
Clarksdale	29	2	18	49	593,051
Clinton	27	0	4	31	828,306
Columbus	44	3	30	77	1,178,703
Greenville	43	0	33	76	987,041
Greenwood	32	2	22	56	780,875
Gulfport	51	9	30	90	1,936,160
Hattiesburg	103	6	38	147	3,401,402
Jackson	359	8	201	568	12,043,213
Laurel	54	3	28	85	1,079,338
McComb	12	4	10	26	347,188
Meridian	108	4	59	171	2,477,477
Natchez	26	4	21	51	743,453
Pascagoula	47	5	18	70	1,363,858
Tupelo	47	1	27	75	1,388,205
Vicksburg	32	3	32	67	2,136,534
Yazoo City	10	0	4	14	233,955
Total in MRS	1,070	59	625	1,754	\$33,751,528



SECTION III – ACTUARIAL PRESENT VALUES

The following exhibit shows the assets and liabilities of each municipality's retirement system as of the current valuation date of June 30, 2017. The items shown in the exhibit are present values actuarially determined as of the relevant valuation date. The development of the actuarial value of assets is presented in Schedule A.



**MISSISSIPPI MUNICIPAL RETIREMENT SYSTEMS
ACTUARIAL PRESENT VALUES AS OF JUNE 30, 2017**

Actuarial Present Value, June 30, 2017							
Municipality	Active Members	Retired Members	Total	Portion Covered by Future Active Member Contributions	Total Employer Liability	Assets Used in Valuation	Unfunded Employer Liability
Biloxi	\$0	\$21,872,023	\$21,872,023	\$0	\$21,872,023	\$9,025,768	\$12,846,255
Clarksdale	405,455	5,419,237	5,824,692	0	5,824,692	1,560,922	4,263,770
Clinton	928,371	9,377,822	10,306,193	15,859	10,290,334	8,959,540	1,330,794
Columbus	0	10,616,919	10,616,919	0	10,616,919	1,007,524	9,609,395
Greenville	0	9,084,159	9,084,159	0	9,084,159	3,216,562	5,867,597
Greenwood	297,749	7,119,495	7,417,244	0	7,417,244	3,008,539	4,408,705
Gulfport	0	19,714,648	19,714,648	0	19,714,648	9,384,930	10,329,718
Hattiesburg	451,678	35,770,533	36,222,211	0	36,222,211	21,253,428	14,968,783
Jackson	0	109,172,997	109,172,997	0	109,172,997	55,935,726	53,237,271
Laurel	0	10,486,009	10,486,009	0	10,486,009	4,202,147	6,283,862
McComb	0	3,358,271	3,358,271	0	3,358,271	920,005	2,438,266
Meridian	347,617	22,040,370	22,387,987	0	22,387,987	12,482,644	9,905,343
Natchez	0	7,168,324	7,168,324	0	7,168,324	2,110,779	5,057,545
Pascagoula	0	11,929,166	11,929,166	0	11,929,166	7,485,017	4,444,149
Tupelo	0	13,090,391	13,090,391	0	13,090,391	5,662,927	7,427,464
Vicksburg	0	20,880,839	20,880,839	0	20,880,839	11,070,492	9,810,347
Yazoo City	0	2,245,276	2,245,276	0	2,245,276	387,380	1,857,896
Total in MRS	\$2,430,870	\$319,346,479	\$321,777,349	\$15,859	\$321,761,490	\$157,674,330	\$164,087,160



SECTION IV – COMPUTED EMPLOYER CONTRIBUTION RATES

Mississippi Municipal Retirement Systems Computed Employer Contribution Rates¹ June 30, 2017

Municipality	Members Contributions ²	Certified Rate for Fiscal Year Ending 9/30/2018	Current Millage Rate for Fiscal Year Ending 9/30/2018	Computed Rates for <u>2018-2019 Fiscal Year</u>		
				Pre-2011 Funding Policy Rate ⁴	Post-2011 Funding Policy Rate ⁵	Certified Rate for Fiscal Year Ending 9/30/2019
Biloxi	9.00%	2.30	2.30	11.65	2.03	2.03
Clarksdale	10.00	4.81	4.81	26.12	4.75	4.75
Clinton	8.00	1.03	1.03	3.15	0.80	0.80
Columbus	10.00	5.67	5.67	24.55	5.82	5.82
Greenville	10.00	2.86	2.86	15.53	2.76	2.76
Greenwood	10.00	4.03	4.03	20.70	3.73	3.73
Gulfport	8.00	1.38	1.38	7.34	1.23	1.23
Hattiesburg	10.00	3.33	3.33	17.97	3.08	3.08
Jackson	10.00	4.46	4.46	23.24	4.10	4.10
Laurel	10.00	3.45	4.46	19.29	3.29	3.29
McComb	10.00	2.53	2.90	12.30	2.16	2.16
Meridian ³	10.00	3.36	4.96	13.07	2.36	2.36
Natchez	10.00	3.50	3.90	18.61	3.21	3.21
Pascagoula	10.00	1.94	3.00	9.28	1.67	1.67
Tupelo	7.00	1.49	1.61	7.70	1.36	1.36
Vicksburg	10.00	2.83	2.66	15.86	2.79	2.79
Yazoo City	10.00	3.70	3.70	19.42	3.67	3.67

¹ Millage rates applied to assessed property

² % of Active Member Payroll

³ Meridian General Employees' contribution rate is 7.00%

⁴ 3 year amortization

⁵ Calculated using cash flow projections and 6.50% investment return assumption (see Schedule H)

The Systems are funded through taxes levied on assessed properties located in the Municipalities.



Since, under the new funding policy, the millage rates are developed assuming 0% annual growth in assessed property values in the future, the following table provides the recent history of assessed values as a guide to the appropriateness of that assumption.

**Mississippi Municipal Retirement Systems
Total Assessed Property Values
Last Five Fiscal Years**

Municipality	2012	2013	2014	2015	2016	Average % Increase
Biloxi	\$536,423,314	\$543,325,163	\$539,310,113	\$546,242,975	\$574,544,932	1.7%
Clarksdale	82,157,872	84,299,372	84,980,872	85,157,047	85,193,003	0.9
Clinton	196,727,591	202,132,944	203,433,087	208,834,622	208,729,466	1.5
Columbus	188,229,301	188,431,654	186,886,981	201,353,637	199,814,257	1.5
Greenville	188,790,708	204,581,799	204,466,100	201,281,727	198,785,980	1.3
Greenwood	110,076,908	111,119,134	111,065,244	110,861,169	110,569,319	0.1
Gulfport	712,643,161	715,776,860	712,273,192	711,742,489	737,909,261	0.9
Hattiesburg	416,993,266	425,665,993	425,665,993	432,115,121	437,346,637	1.2
Jackson	1,201,065,685	1,204,649,630	1,196,637,968	1,196,316,148	1,197,598,015	(0.1)
Laurel	156,631,234	162,457,763	163,138,096	169,085,361	166,322,618	1.5
McComb	92,659,996	94,434,136	94,837,146	94,847,079	100,951,928	2.2
Meridian	315,367,985	321,370,611	325,553,228	331,879,752	342,244,755	2.1
Natchez	131,817,912	141,619,607	130,647,499	132,429,491	139,808,455	1.5
Pascagoula	246,977,314	253,579,334	245,711,068	234,077,905	234,224,731	(1.3)
Tupelo	428,424,384	452,942,037	464,994,834	464,811,369	497,690,205	3.8
Vicksburg	306,562,861	320,028,001	315,300,118	322,195,038	326,807,260	1.6
Yazoo City	45,329,561	46,783,202	48,493,391	49,226,333	49,956,737	2.5



SECTION V – COMMENTS ON VALUATION

1. Based on the Board funding policy, the millage rates established by the municipalities must be set at a level which will ensure actuarial soundness of the Systems. As can be seen from the table on page 8, the current millage rate for the fiscal year ending September 30, 2018 for two of the municipalities is less than the certified rate for the fiscal year ending September 30, 2019 under the post-2011 funding policy. Therefore, the municipalities listed below need to increase their millage rate to the certified millage rate for the fiscal year ending September 30, 2019.
 - Columbus
 - Vicksburg
2. It should be noted that there is one municipality (Vicksburg) whose current millage rate is below the certified millage rate for the fiscal year ending September 30, 2018. This is not in accordance with the MRS funding policy.
3. As shown in the analysis of experience on pages 36 and 37, the System had an actuarial gain for the year. The gain was primarily due to the investment return on an actuarial value basis for the year being more than expected (10.06% vs. 7.75%). In addition, there was a gain due to more retiree and beneficiary deaths than expected. These gains were partially offset due to the increase in liabilities from the change in assumed rates of mortality as well as the change in benefit provisions for the Cities of Tupelo and Vicksburg.
4. From 2015 to 2016, the value of assessed property increased for twelve and decreased for five of the seventeen municipalities. Under the funding policy, the value of assessed property is assumed to remain level. In general, if assessed property values grow, it contributes to a decrease in the millage rate.



SECTION VI – SUPPLEMENTAL DISCLOSURE INFORMATION

1. The following supplemental disclosure information is provided for informational purposes only. One such item is a distribution of the number of employees by type of membership, as follows:

NUMBER OF ACTIVE AND RETIRED PARTICIPANTS AS OF JUNE 30, 2017

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	1,754
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	0
Inactive Participants	0
Active Participants	<u>6</u>
Total	1,760



2. The actuarial accrued liability is as follows:

ACTUARIAL ACCRUED LIABILITY

Municipality	Actives	Retirees	Total Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability
Biloxi	\$0	\$21,872,023	\$21,872,023	\$9,025,768	\$12,846,255
Clarksdale	405,455	5,419,237	5,824,692	1,560,922	4,263,770
Clinton	898,152	9,377,822	10,275,974	8,959,540	1,316,434
Columbus	0	10,616,919	10,616,919	1,007,524	9,609,395
Greenville	0	9,084,159	9,084,159	3,216,562	5,867,597
Greenwood	297,749	7,119,495	7,417,244	3,008,539	4,408,705
Gulfport	0	19,714,648	19,714,648	9,384,930	10,329,718
Hattiesburg	451,678	35,770,533	36,222,211	21,253,428	14,968,783
Jackson	0	109,172,997	109,172,997	55,935,726	53,237,271
Laurel	0	10,486,009	10,486,009	4,202,147	6,283,862
McComb	0	3,358,271	3,358,271	920,005	2,438,266
Meridian	347,617	22,040,370	22,387,987	12,482,644	9,905,343
Natchez	0	7,168,324	7,168,324	2,110,779	5,057,545
Pascagoula	0	11,929,166	11,929,166	7,485,017	4,444,149
Tupelo	0	13,090,391	13,090,391	5,662,927	7,427,464
Vicksburg	0	20,880,839	20,880,839	11,070,492	9,810,347
Yazoo City	0	2,245,276	2,245,276	387,380	1,857,896
Totals	\$2,400,651	\$319,346,479	\$321,747,130	\$157,674,330	\$164,072,800

During the year ended June 30, 2017, the Systems experienced a net decrease of \$8,915,666 in the actuarial accrued liability.



3. Another such item is the schedule of funding progress as shown below. As can be seen in column 3 of the table below, the funded ratio decreased over the first four years of the 10-year period but the funded ratio has begun to slowly improve in recent years. As this is a closed plan, the funded ratio should continue to increase to 100% when all the cities reach a pay-as-you-go status.

SCHEDULE OF FUNDING PROGRESS
(\$ Thousands)

Plan Year Ended	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Percent Funded (1)/(2)	(4) Unfunded AAL (2) – (1)	(5) Annual Covered Payroll	(6) Unfunded AAL as a Percentage of Covered Payroll (4)/(5)
09/30/08	\$208,479	\$368,131	56.6%	\$159,652	\$1,713	9,320.0%
09/30/09	191,179	381,036	50.2	189,857	1,608	11,807.0
09/30/10	175,988	372,897	47.2	196,909	1,425	13,818.2
09/30/11	167,604	363,604	46.1	196,000	1,357	14,443.6
09/30/12	155,484	356,571	43.6	201,087	1,131	17,779.6
06/30/13	153,241	349,588	43.8	196,347	794	24,728.8
06/30/14	157,970	340,385	46.4	182,415	727	25,091.5
06/30/15	162,616	341,525	47.6	178,909	579	30,899.7
06/30/16	159,160	330,663	48.1	171,503	419	40,931.5
06/30/17	157,674	321,747	49.0	164,073	321	51,113.1

Numbers shown above reflect all changes in benefit provisions, actuarial assumptions, and/or actuarial methods, if any.



History of Funding Progress

Municipality	Actuarial Value of Assets as Percentage of AAL									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Biloxi	50.93%	45.80%	45.13%	43.06%	39.41%	38.18%	39.49%	39.55%	40.41%	41.27%
Clarksdale	15.40	14.44	16.56	19.43	19.99	23.82	23.18	26.51	27.32	26.80
Clinton	92.34	86.80	80.83	79.26	75.02	74.38	79.09	82.74	84.38	87.19
Columbus	9.95	10.62	10.92	11.80	10.74	11.29	13.10	10.54	9.82	9.49
Greenville	44.25	40.58	39.28	36.89	34.25	34.11	36.12	36.64	35.56	35.41
Greenwood	36.46	34.24	33.94	36.63	34.72	35.05	36.61	38.27	39.47	40.56
Gulfport	50.66	48.14	46.52	49.00	46.37	45.03	46.99	47.63	47.01	47.60
Hattiesburg	68.39	62.14	59.03	57.32	54.17	53.82	56.90	58.53	58.29	58.68
Jackson	70.38	59.47	53.94	51.61	48.80	48.35	50.83	51.49	50.95	51.24
Laurel	28.86	26.77	26.79	27.31	26.79	29.51	33.03	36.20	40.17	40.07
McComb	37.07	32.66	29.72	32.26	27.48	25.52	24.99	25.49	25.94	27.40
Meridian	32.36	31.08	30.92	31.34	31.22	33.90	38.17	42.40	48.51	55.76
Natchez	27.83	26.33	27.06	28.24	28.55	30.03	30.21	29.61	30.24	29.45
Pascagoula	58.67	54.36	53.87	53.47	50.75	52.53	57.57	59.64	60.57	62.75
Tupelo	61.21	55.33	48.91	45.59	42.81	42.51	44.96	44.31	43.82	43.26
Vicksburg	67.51	57.85	53.87	52.28	47.83	49.26	52.08	53.82	53.77	53.02
Yazoo City	27.85	28.91	25.65	21.98	22.32	21.96	16.66	20.20	18.42	17.25



History of Funding Progress

Unfunded Actuarial Accrued Liability as a Percentage of Payroll										
Municipality	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Biloxi	8,832.26%	10,973.44%	10,266.41%	11,063.20%	19,963.01%	N/A	N/A	N/A	N/A	N/A
Clarksdale	15,126.83	15,704.88	13,639.53	12,467.44	12,162.79	10,770.71%	10,444.15%	9,409.47%	8,529.52%	7,777.62%
Clinton	241.37	417.52	599.06	639.13	758.97	986.40	758.81	770.04	1,587.03	1,293.51
Columbus	21,715.09	20,969.09	20,494.55	17,140.63	16,083.58	15,758.80	14,649.77	N/A	N/A	N/A
Greenville	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Greenwood	5,209.09	5,429.46	5,367.57	7,054.55	6,927.50	6,651.70	6,243.97	5,978.71	5,447.96	10,658.06
Gulfport	7,019.87	7,133.33	7,209.70	6,559.76	12,753.41	N/A	N/A	N/A	N/A	N/A
Hattiesburg	4,084.43	4,814.94	6,110.38	7,778.10	11,110.90	18,172.80	16,641.41	15,736.28	29,742.82	27,810.09
Jackson	17,669.86	28,242.41	64,956.99	62,297.98	151,185.71	154,839.64	115,483.11	120,998.39	92,170.95	N/A
Laurel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
McComb	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Meridian	12,080.38	12,031.71	11,550.00	11,062.72	10,638.01	14,285.66	23,079.51	21,336.86	17,680.30	14,260.50
Natchez	4,005.48	18,177.14	17,345.71	16,817.14	16,442.86	14,961.74	14,379.28	N/A	N/A	N/A
Pascagoula	10,610.17	14,785.11	14,182.98	13,479.59	14,578.72	13,564.67	N/A	N/A	N/A	N/A
Tupelo	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vicksburg	14,073.47	19,368.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Yazoo City	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



4. Under the prior funding policy, the accrued liability amount was based on the amortization of the unfunded actuarial accrued liability over a closed period from the valuation date. The period as of June 30, 2017 is 17 years. The calculation of this amount is shown below.

**2017/2018 FISCAL YEAR
ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)
BASED ON THE VALUATION AS OF JUNE 30, 2017**

ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)	
Normal	\$ 7,368
Accrued liability	<u>17,385,660</u>
Total	\$ 17,393,028

5. Additional information as of June 30, 2017 follows.

Valuation date	6/30/17
Actuarial cost method	Entry age
Amortization method	Level dollar closed
Remaining amortization period	17 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return*	7.75%
Projected salary increases#	4.00% - 5.50%
*Includes price inflation at	3.00%
#Includes wage inflation at	3.75%
Cost of living adjustments	2.00% - 3.75% depending upon municipality



Schedule of Employer Contributions

Fiscal Year 10/1-9/30	Valuation date	Actuarially Determined Contribution	Percentage Contributed
2008-09	9/30/2008	\$14,764,994	114.4%
2009-10	9/30/2009	17,739,274	120.8
2010-11	9/30/2010	18,576,054	122.7
2011-12	9/30/2011	18,751,144	127.0
2012-13	9/30/2012	19,511,877	102.6
2013-14	6/30/2013	19,343,836	105.4
2014-15	6/30/2014	18,337,572	105.5
2015-16	6/30/2015	18,034,182	102.8
2016-17	6/30/2016	17,693,519	N/A
2017-18	6/30/2017	17,393,028	N/A

Contributions Required and Contributions Made

Municipality	Actuarially Determined Contribution	Actual 2015 – 2016 Contribution	Percentage Contributed
Biloxi	\$1,457,579	\$1,361,189	93.4%
Clarksdale	463,485	468,403	101.1
Clinton	213,203	190,177	89.2
Columbus	1,017,418	674,649	95.8
Greenville	601,139	612,832	101.9
Greenwood	502,678	465,290	92.6
Gulfport	1,083,302	899,471	83.0
Hattiesburg	1,562,148	1,326,942	84.9
Jackson	5,725,635	5,099,715	89.1
Laurel	725,378	994,419	137.1
McComb	268,105	260,013	97.0
Meridian	1,460,288	2,660,204	182.2
Natchez	553,128	468,000	84.6
Pascagoula	514,167	706,304	137.4
Tupelo	722,886	892,682	123.5
Vicksburg	977,243	1,009,216	103.3
Yazoo City	186,400	152,630	81.9
Total	\$18,034,182	\$18,542,135	102.8%



Solvency Tests
(\$ in Thousands)

Actuarial Accrued Liabilities for							
Date	(1) Accumulated Employee Contributions Including Allocated Investment Earnings	(2) Retirees and Beneficiaries Currently Receiving Benefits	(3) Active and Inactive Members Employer Financed Portion	Net Assets Available for Benefits	Portions of Accrued Liabilities Covered by Assets		
					(1)	(2)	(3)
9/30/08	\$2,688	\$356,413	\$9,030	\$208,479	100%	57.7%	0.0%
9/30/09	2,522	369,470	9,044	191,179	100	51.1	0.0
9/30/10	2,295	362,444	8,158	175,988	100	47.9	0.0
9/30/11	2,256	353,609	7,739	167,604	100	46.8	0.0
9/30/12	1,957	348,121	6,493	155,484	100	44.1	0.0
6/30/13	1,483	343,770	4,335	153,241	100	44.1	0.0
6/30/14	1,342	334,937	4,106	157,970	100	46.8	0.0
6/30/15	1,101	337,039	3,385	162,616	100	47.9	0.0
6/30/16	867	327,525	2,271	159,160	100	48.3	0.0
6/30/17	667	319,346	1,734	157,674	100	49.2	0.0

As can be seen from the table above, the MRS plan assets currently covers 100% of the active member contribution account balances as of the valuation date but only covers about 49.2% of the retiree liability. There remains zero assets to cover any employer financed active liabilities.



Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Number	Active Members		
			Annual Payroll	Annual Average Pay	% Increase in Average Pay
9/30/08	17	35	\$1,712,743	\$48,936	5.3%
9/30/09	17	31	1,608,396	51,884	6.0
9/30/10	17	27	1,424,636	52,764	1.7
9/30/11	17	25	1,356,858	54,274	2.9
9/30/12	17	21	1,131,252	53,869	(0.7)
6/30/13	17	16	793,841	49,615	(7.9)
6/30/14	17	14	727,347	51,953	4.7
6/30/15	17	11	579,267	52,661	1.4
6/30/16	17	8	419,000	52,375	(0.5)
6/30/17	17	6	321,243	53,541	2.2

Schedule of Retirants Added to and Removed From Rolls Last Ten Fiscal Years

Item	Fiscal Year Ended September 30									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Beginning of Year	2,167	2,123	2,090	2,056	2,016	1,978	1,941	1,890	1,849	1,798
Added	39	37	44	46	39	40	29	40	46	34
Removed	(83)	(70)	(78)	(86)	(77)	(77)	(80)	(81)	(97)	(78)
End of Year	2,123	2,090	2,056	2,016	1,978	1,941	1,890	1,849	1,798	1,754

*See Schedule D for a breakdown by type of retirement.



**Schedule of Benefit Payments Added to and Removed From Rolls
Last Six Fiscal Years**

Year Ending	2012	2013	2014	2015	2016	2017
Beginning of Year	\$35,164,599	\$35,097,293	\$35,105,891	\$34,723,473	\$34,478,364	\$34,088,404
Added	690,172	896,085	485,121	731,337	842,966	712,490
Removed	(942,832)	(1,083,209)	(1,041,083)	(1,119,680)	(1,365,194)	(1,174,872)
Benefit increase due to annual COLA	185,354	195,722	173,544	143,234	132,268	125,506
Benefit increase due to plan amendments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
End of Year	\$35,097,293	\$35,105,891	\$34,723,473	\$34,478,364	\$34,088,404	\$33,751,528



Schedule of Average Benefit Payments

	Years of Credited Service								TOTAL
	0-9	10-14	15-19	20-24	25	26-29	30	31+	
July 1, 2016 to June 30, 2017									
Average Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,424	\$2,424
Average Final Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43,631	\$43,631
Number of Active Retirants	0	0	0	0	0	0	0	2	2
July 1, 2015 to June 30, 2016									
Average Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,479	\$3,479
Average Final Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$44,155	\$44,155
Number of Active Retirants	0	0	0	0	0	0	0	3	3
July 1, 2014 to June 30, 2015									
Average Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$0	\$2,898	\$2,912	\$2,907
Average Final Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$51,253	\$56,520	\$54,764
Number of Active Retirants	0	0	0	0	0	0	1	2	3
July 1, 2013 to June 30, 2014									
Average Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,778	\$2,778
Average Final Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$47,160	\$47,160
Number of Active Retirants	0	0	0	0	0	0	0	2	2
October 1, 2012 to June 30, 2013									
Average Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$3,490	\$0	\$4,379	\$4,201
Average Final Salary	\$0	\$0	\$0	\$0	\$0	\$63,310	\$0	\$72,947	\$71,020
Number of Active Retirants	0	0	0	0	0	1	0	4	5
October 1, 2011 to September 30, 2012									
Average Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,423	\$3,423
Average Final Salary	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$61,607	\$61,607
Number of Active Retirants	0	0	0	0	0	0	0	4	4



SCHEDULE A
Development of Actuarial Value of Assets

	6/30/2016	6/30/2017	6/30/2018	6/30/2019	6/30/2020	6/30/2021
A. Actuarial Value Beginning of Year	\$162,616,440	\$159,159,590				
B. Market Value End of Year	154,628,833	158,569,612				
C. Market Value Beginning of Year	169,986,470*	154,628,833				
D. Cash Flow						
D1. Contributions	18,594,933	17,762,547				
D2. Other Revenue	0	0				
D3. Benefit Payments	(34,428,573)	(34,070,549)				
D4. Administrative Expenses	(370,842)	(354,630)				
D5. Investment Expenses	0	0				
D6. Net	(16,204,482)	(16,662,632)				
E. Investment Income						
E1. Market Total: B.-C.-D6.	846,845	20,603,411				
E2. Assumed Rate	7.75%	7.75%				
E3. Amount for Immediate Recognition	12,546,028	11,338,058				
E4. Amount for Phased-In Recognition	(11,699,183)	9,265,353				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	(2,339,837)	1,853,071	0	0	0	0
F2. First Prior Year	(1,648,574)	(2,339,837)	1,853,071	0	0	0
F3. Second Prior Year	3,799,650	(1,648,574)	(2,339,837)	1,853,071	0	0
F4. Third Prior Year	2,175,004	3,799,650	(1,648,574)	(2,339,837)	1,853,071	0
F5. Fourth Prior Year	<u>(2,440,169)</u>	<u>2,175,004</u>	<u>3,799,650</u>	<u>(1,648,574)</u>	<u>(2,339,837)</u>	<u>1,853,071</u>
F6. Total Recognized Investment Gain	(453,926)	3,839,314	1,664,310	(2,135,340)	(486,766)	1,853,071
G. Adjustment:	655,530	0				
H. Actuarial Value End of Year:						
A.+D6.+E3.+F6.+G.	\$159,159,590	\$157,674,330				
I. Difference Between Market & Actuarial Values	(4,530,757)	895,282	(769,028)	1,366,312	1,853,078	7

The Actuarial Valuation of Assets recognizes assumed investment income (line E3) fully each year. Differences between actual and assumed investment income (line E4) are phased in over a closed 5 year period. During periods when investment performance exceeds the assumed rate, Actuarial Value of Assets will tend to be less than market value. During periods when investment performance is less than the assumed rate, Actuarial Value of Assets will tend to be greater than market value. If assumed rates are exactly realized for 4 consecutive years, actuarial value will become equal to market value.



SCHEDULE B

STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

INTEREST RATE: 7.75% per annum, compounded annually (net after investment expenses) for prior funding policy rate determination and GASB disclosure.

6.50% per annum, compounded annually (net after investment expenses) for current funding policy rate determination.

PRICE INFLATION: 3.00% per annum, compounded annually.

SEPARATIONS FROM ACTIVE SERVICE: Representative values of the assumed annual rates of separation from active service are as follows:

Age	Withdrawal	Death		Disability	
		Non-Duty	Duty	Non-Duty	Duty
20	10.65%	.04%	.02%	.08%	.06%
25	8.64	.05	.03	.12	.12
30	6.87	.08	.04	.18	.26
35	4.86	.11	.05	.24	.52
40	2.97	.15	.07	.36	.60
45	1.44	.22	.09	.64	.54
50	0.24	.34	.14	1.10	.88
55		.44	.20	1.58	1.18
60		.51	.32	2.20	1.30
64		.57	.42	2.86	1.38

Service Retirement	
Years of Service	Percent
20	45.0%
21-28	17.5
29-33	35.0
34 and over	20.0
Age 65	100.0



SALARY INCREASES: 3.25% for wage inflation plus the following chart.

Ages	Merit and Seniority Salary Increase
Under 43	1.50%
43 – 47	1.00
48 – 52	0.50
53 and Over	0.00

DEATH AFTER RETIREMENT: The mortality table, for post-retirement mortality, used in evaluating allowances to be paid was the RP-2014 Healthy Annuitant Blue Collar Mortality Table projected with Scale BB to 2022 with male rates set forward one year and adjusted by 106% for males at all ages and as follows for females: 90% for ages less the 76, 95% for age 76, 105% for age 78, and 1.10% for ages 79 and greater. The RP-2014 Disabled Retiree Mortality Table set forward 4 years for males and 3 years for females was used for the period after disability retirement. This assumption is used to measure the probabilities of each benefit payment being made after retirement. Mortality improvement is anticipated under this assumption as recent mortality experience shows actual deaths 11.2% greater than expected under the selected table for non-disability mortality and 10.5% greater than expected under the selected table for disability mortality.

MARRIAGE ASSUMPTION: 85% married with the husband three years older than his wife.

VALUATION METHOD: Unfunded employer liabilities are amortized over a closed 30 year period from September 30, 1990 as a level percent of each municipality's assessed property valuation.

ASSESSED PROPERTY VALUE RATE OF INCREASE: 2.0% per annum, compounded annually (used in determining the millage rate under the prior funding policy).

EXPENSE LOAD: 2.0% of employer contributions.



ASSET VALUATION METHOD: Actuarial value, as developed in Schedule A. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value. Actuarial assets were allocated to individual cities in the same proportion that their market value of assets was to the total market value of assets for all cities.



SCHEDULE C

SUMMARY OF BENEFIT PROVISIONS EVALUATED

The following summary presents the main provisions of the Systems in effect June 30, 2017, as interpreted in preparing the actuarial valuation. As used in the summary, "average compensation" means the average compensation of a member during the six month period prior to receipt of an allowance.

BENEFITS

Service Retirement

Condition for Retirement

A retirement allowance is payable to any member who retires and has completed at least 20 years of creditable service, regardless of age.

Any general employee member who has attained age 70 and any fireman or policeman who has attained age 65 shall be retired forthwith.

Amount of Allowance

The annual retirement allowance payable to a retired member is equal to:

1. 50% of average compensation, plus
2. 1.7% of average compensation for each year of credited service over 20.

The aggregate amount of (1) and (2) above shall not exceed 66-2/3% (87% for Clinton) of average compensation, regardless of service.

Disability Retirement

Condition for Retirement

A retirement allowance is payable to any member who is not eligible for a service retirement benefit but who becomes totally and permanently disabled, either physically or mentally, regardless of creditable service, if the disability is due to causes in the performance of duty. If the disability is not in the performance of duty, the member must have completed at least 5 years of creditable service to be eligible for retirement.



Amount of Allowance

The annual disability retirement allowance payable is equal to 50% of his salary at the time of retirement, if the disability is due to causes in the performance of duty.

If the disability is not in the performance of duty, the allowance is equal to 2.5% times credited service, not in excess of 20, times his salary at the time of retirement for firemen and policemen, and average compensation for general employees.

Death Benefit

Conditions for Benefit

A benefit is payable upon the death of a member under the following conditions:

- (a) the member has retired,
- (b) the member is eligible to retire,
- (c) the death is in the line of duty, or
- (d) the death is not in the line of duty, but occurs after the member has 5 years of credited service.

The benefit is payable to the surviving spouse until remarriage and to children under age 18, to dependent children through age 23 when full time students, and to dependent children of any age if handicapped. For Clarksdale, Columbus, Gulfport, Hattiesburg, Jackson, McComb, Meridian, Vicksburg and Yazoo City, benefits payable to spouses do not cease upon remarriage.

Amount of Benefit

The annual benefit payable under all conditions in the case of firemen and policemen and under other than condition (c) in the case of general employees is equal to 2.5% of average compensation for each year of credited service up to 20 and 1.7% of average compensation for each year over 20, with a maximum benefit of 66-2/3% (87% for Clinton) of average compensation.

For general employee members under condition (c), the annual benefit payable is equal to 50% of salary at the time of death.

Return of Contributions

Upon a member's termination of employment for any reason before retirement, his accumulated contributions are refunded. Upon the death of a member who is not eligible for any other death benefit, his accumulated contributions are paid to his beneficiary.



Minimum Allowances

The minimum monthly allowance paid to members from the following municipalities, for all retirement and death benefits, are:

Biloxi:	\$600
Columbus:	\$500
Gulfport:	\$500
Hattiesburg:	\$750
Jackson:	\$500
Meridian:	\$600
Tupelo:	\$750
Vicksburg:	\$1,515

Post-Retirement Adjustments In Allowances

The allowances of certain retired members are adjusted annually by a cost-of-living adjustment (COLA) on the basis of the annual percentage change in each fiscal year of the Consumer Price Index.

Those adjustments are limited as follows:

Biloxi: 3% per year (not to exceed 64.4%) for each full fiscal year of retirement after June 30, 2000 for all retirees and beneficiaries with the COLA being compounded beginning with the state fiscal year in which the retired member turns age 55. This is in addition to the previously granted maximum of 3% per year (not to exceed 9%) for all members who retired on or before December 31, 1995.

Clarksdale: Maximum of 2-1/2% per year for all retirees and beneficiaries.

Clinton: Maximum of 2-1/2% per year (not to exceed 10%) for service retirements only.

Columbus: Maximum of 2-1/2% per year (not to exceed 25%) for all retirees and beneficiaries.

Greenville: Maximum of 2-1/2% per year (not to exceed 25%) for all retirees and beneficiaries.

Gulfport: Maximum of 3% per year (not to exceed 27%) for each fiscal year of retirement after June 30, 2002 for all retirees and beneficiaries. This is in addition to the previously granted COLA of 2% per year (not to exceed 6%) for those retired before July 1, 2001. All Gulfport retirees and beneficiaries who were receiving a retirement allowance as of June 30, 2002 were granted a monthly ad-hoc benefit increase of \$2 per month for each year of service plus \$2 per month for each full fiscal year retired.



Hattiesburg: 2-1/2% per year for all retirees and beneficiaries (not to exceed 30%).

Jackson: Maximum aggregate increase of 19.5% for service and disability retirements only.

Laurel: 2% per year, compounded annually (maximum of 3 years) for each fiscal year of retirement after June 30, 2002 for all retirees and beneficiaries. COLA increases begin at the later of age 60 or after one full fiscal year of retirement.

McComb: Maximum of 2-1/2% per year for all retirees and beneficiaries (not to exceed 10%).

Meridian: All retirees and beneficiaries who were receiving a retirement allowance as of June 30, 1999 were granted a 3.9% ad-hoc benefit increase.

Pascagoula: Maximum of 2-1/2% per year for all retirees and beneficiaries (not to exceed 15%).

Tupelo: All retirees and beneficiaries received an increase of 5% in allowances effective December 1, 1991. Additional 3% ad-hoc benefit increases were granted to members who were retired for at least one full fiscal year as of September 30, 1995, as of September 30, 1997, as of September 30, 1998, and as of September 30, 2000. Furthermore, a 2% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 1999 and a 2.34% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2001. Furthermore, a 2% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2010. Furthermore, a 2% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2014. Furthermore, a 3% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2015. Furthermore, a 3% ad-hoc benefit increase was granted to members who were retired for at least one full fiscal year as of September 30, 2016.

Vicksburg: 3% per year for all retirees and beneficiaries.

Yazoo City: Maximum of 2-1/2% per year (not to exceed 25%) for all retirees and beneficiaries.



Post-retirement adjustments are included in System liabilities for future increases for Biloxi, Clinton, Columbus, Greenville, Gulfport, Hattiesburg, Jackson, Laurel, McComb, Pascagoula, Tupelo, Vicksburg, and Yazoo City.



SCHEDULE D

DETAILED TABULATIONS OF THE DATA

RECONCILIATION OF DATA RECEIVED FROM PERS

Reconciliation of Data received from PERS	Active File			Pensioner File			Total
	Active	Inactive NonVested	Inactive Vested	Retirees	Disableds	Survivors	
From PERS	9	2	0	1,112	64	652	1,839
Refunded		(2)					(2)
Deceased				(42)	(5)	(30)	(77)
Retired*	(3)						(3)
Added						3	3
For Valuation	6	0	0	1,070	59	625	1,760

*Also included in Pensioner File

STATUS RECONCILIATION FROM 2016 TO 2017

	Actives	Retirees	Disability	Survivor	Total
As of June 30, 2016	8	1,110	64	624	1,806
Retirements	(2)	2			0
Disabilities					
Death with Survivors		(30)	(2)	32	0
Deaths with no Survivors		(12)	(3)	(31)	(46)
Certain Period Ended					
Data Corrections					
As of June 30, 2017	6	1,070	59	625	1,760



SCHEDULE D

Retirants & Beneficiaries as of June 30, 2017

Tabulated by Year of Retirement

Year of Retirement	No.	Annual Benefits excluding COLA	COLA	Total Annual Benefits	Average Monthly Benefit
2017	1	\$ 29,960	\$ 0	\$ 29,960	\$ 2,497
2016	4	153,667	0	153,667	3,201
2015	1	25,335	0	25,335	2,111
2014	3	111,086	1,999	113,085	3,141
2013	9	364,151	24,872	389,023	3,602
2012	4	164,423	15,796	180,219	3,755
2011	1	25,791	0	25,791	2,149
2010	5	156,183	22,262	178,445	2,974
2009	3	79,418	5,221	84,639	2,351
2008	7	177,630	14,479	192,109	2,287
2007	8	250,897	51,401	302,298	3,149
2006	14	371,190	58,406	429,596	2,557
2005	28	714,241	127,172	841,413	2,504
2004	21	459,023	96,108	555,131	2,203
2003	33	870,365	196,175	1,066,540	2,693
2002	41	1,142,239	264,225	1,406,464	2,859
2001	25	710,322	143,508	853,830	2,846
2000	38	943,463	226,132	1,169,595	2,565
1999	37	873,936	195,142	1,069,078	2,408
1998	43	1,018,778	203,295	1,222,073	2,368
1997	53	1,143,800	202,083	1,345,883	2,116
1996	58	1,135,550	203,889	1,339,439	1,924
1995	104	1,785,568	280,088	2,065,656	1,655
1994	138	2,385,139	457,630	2,842,769	1,717
1993	98	1,651,089	322,925	1,974,014	1,679
1992	92	1,545,229	282,281	1,827,510	1,655
1991	78	1,325,908	222,478	1,548,386	1,654
1990	67	1,008,952	160,933	1,169,885	1,455
1989	51	697,655	165,892	863,547	1,411
1988	79	1,158,794	227,604	1,386,398	1,462
1987	48	605,182	129,033	734,215	1,275
1986	59	798,492	183,288	981,780	1,387
1985	49	640,625	132,783	773,408	1,315
1984	46	488,770	83,797	572,567	1,037
1983 & Prior	408	3,258,162	779,618	4,037,780	825
Totals	1,754	\$ 28,271,013	\$ 5,480,515	\$ 33,751,528	\$ 1,604



SCHEDULE D

Schedule of Retired Members by Type of Benefit

Benefits Payable June 30, 2017

Amount of Monthly Benefit	Number of Rets.	Ret. Type 1*	Ret. Type 2*	Ret. Type 3*
\$1 - \$300	15	1	2	12
301 - 600	96	17	5	74
601 - 900	227	90	22	115
901 - 1,200	352	173	19	160
1,201 - 1,500	220	151	7	62
1,501 - 1,800	235	175	1	59
1,801 - 2,100	159	121		38
2,101 - 2,400	148	114		34
2,401 - 2,700	126	80	3	43
Over 2,700	176	148		28
Totals	1,754	1,070	59	625

***Type of Retirement**

- 1 – Retirement for Age & Service
- 2 – Disability Retirement
- 3 – Survivor Payment



SCHEDULE D

**Retirant and Beneficiary Information June 30, 2017
Tabulated by Attained Ages**

Attained Age	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Total	
	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under 20								
20 – 24					1	\$18,170	1	\$18,170
25 – 29								
30 – 34								
35 – 39								
40 – 44					1	22,130	1	22,130
45 – 49					2	30,569	2	30,569
50 – 54	6	\$202,550			1	24,554	7	227,104
55 – 59	31	855,530			18	333,309	49	1,188,839
60 – 64	78	2,068,929	5	\$54,652	36	657,314	119	2,780,895
65 – 69	286	6,829,051	13	184,803	68	1,301,048	367	8,314,902
70 – 74	239	5,207,065	9	108,139	117	1,912,847	365	7,228,051
75 – 79	174	3,693,664	17	178,421	143	2,456,317	334	6,328,402
80 – 84	154	2,809,444	5	56,367	116	1,678,086	275	4,543,897
85 – 89	75	1,202,088	6	65,785	84	1,038,833	165	2,306,706
90 – 94	24	334,822	2	16,428	29	292,590	55	643,840
95	2	25,470	1	10,777	1	5,702	4	41,949
96	1	7,950			4	28,441	5	36,391
97			1	5,892	3	26,591	4	32,483
98								
99								
100 & Over					1	7,200	1	7,200
Totals	1,070	\$23,236,563	59	\$681,264	625	\$9,833,701	1,754	\$33,751,528



SCHEDULE D

**Total Active Members as of June 30, 2017
Tabulated by Attained Ages and Years of Service**

Attained Age	Years of Service to Valuation Date							Totals	
	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30+	No.	Valuation Payroll
Under 20									
20 – 24									
25 – 29									
30 – 34									
35 – 39									
40 – 44									
45 – 49									
50 – 54									
55 – 59							1	1	\$50,886
60 & Over							5	5	270,357
Totals							6	6	\$321,243

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Age: 67.3 years
Service: 41.8 years
Annual Pay: \$53,541



SCHEDULE E
ANALYSIS OF FINANCIAL EXPERIENCE

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common. Detail on the derivation of the experience gain/(loss) for the year ended June 30, 2017 is shown below.

		\$ Thousands
(1)	UAAL* as of beginning of year	\$ 171,503.2
(2)	Total normal cost from last valuation	19.6
(3)	Total contributions**	17,407.9
(4)	Interest accrual: $\{[(1) + (2)] \times .0775\} - [(3) \times .03803]$	<u>12,631.0</u>
(5)	Expected UAAL before changes: $(1) + (2) - (3) + (4)$	\$ 166,745.9
(6)	Change due to plan amendments	889.3
(7)	Change due to new actuarial assumptions or methods	<u>887.2</u>
(8)	Expected UAAL after changes: $(5) + (6) + (7)$	\$ 168,522.4
(9)	Actual UAAL as of end of year	\$ 164,072.8
(10)	Gain/(loss): $(8) - (9)$	\$ 4,449.6

*Unfunded actuarial accrued liability.

**Net of administrative expenses.



**Gains & Losses in Liabilities Resulting from Differences
Between Assumed Experience & Actual Experience
(\$ Thousands)**

Type of Activity	\$ Gain (or Loss) For Year Ending 6/30/17	\$ Gain (or Loss) For Year Ending 6/30/16
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ 401.2	\$ 71.1
Disability Retirements. If disability claims are less than assumed, there is a gain. If more claims, a loss.	0.0	0.0
Death-in Service Benefits. If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	0.3	1.4
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	0.0	0.0
Pay Increases. If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	5.3	19.9
Investment Income. If there is greater investment income than assumed, there is a gain. If less income, a loss.	3,476.1	66.4
Death After Retirement. If retirants live longer than assumed, there is a loss. If not as long, a gain.	871.2	2,307.4
Other. Miscellaneous gains and losses resulting from data adjustments, COLAs, etc.	<u>(304.5)</u>	<u>(0.2)</u>
Gain (or Loss) During Year From Financial Experience	\$4,449.6	\$2,466.0
Non-Recurring Items. Adjustments for plan amendments, assumption changes, or method changes.	<u>(1,776.5)</u>	<u>0.0</u>
Composite Gain (or Loss) During Year	\$2,673.1	\$2,466.0



SCHEDULE F

GLOSSARY

Actuarial Accrued Liability. The difference between (i) the actuarial present value of future plan benefits, and (ii) the actuarial present value of future normal cost. Sometimes referred to as “accrued liability” or “past service liability”.

Accrued Service. The service credited under the plan which was rendered before the date of the actuarial valuation.

Actuarial Assumptions. Estimates of future plan experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Decrement assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

Actuarial Cost Method. A mathematical budgeting procedure for allocating the dollar amount of the “actuarial present value of future plan benefits” between the actuarial present value of future normal cost and the actuarial accrued liability. Sometimes referred to as the “actuarial funding method”.

Actuarial Equivalent. A series of payments is called an actuarial equivalent of another series of payments if the two series have the same actuarial present value.

Actuarial Present Value. The amount of funds presently required to provide a payment or series of payments in the future. It is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Amortization. Paying off an interest-bearing liability by means of periodic payments of interest and principal, as opposed to paying it off with a lump sum payment.

Experience Gain (Loss). A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, in accordance with the actuarial cost method being used.

Normal Cost. The annual cost assigned, under the actuarial funding method, to current and subsequent plan years. Sometimes referred to as “current service cost”. Any payment toward the unfunded actuarial accrued liability is not part of the normal cost.

Reserve Account. An account used to indicate that funds have been set aside for a specific purpose and are not generally available for other uses.

Unfunded Actuarial Accrued Liability. The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as “unfunded accrued liability”.

Valuation Assets. The value of current plan assets recognized for valuation purposes. Generally based on a market-related smoothing method.



SCHEDULE G

THE NATURE OF ACTUARIAL PROJECTIONS

Regular actuarial valuations measure the Retirement System's present financial position and contributions adequacy by calculating and financing the liabilities created by the present benefit program. This process involves discounting to present values the future benefit payments on behalf of present active and retired members and their survivors. However, valuations do not produce information regarding future changes in the makeup of the covered group or the amounts of benefits to be paid or investment income to be received – actuarial projections do.

Whereas valuations provide a snapshot of the retirement system as of a given date, projections provide a moving picture. Projected active and retired groups are developed from year to year by the application of assumptions regarding pre-retirement withdrawal from service, retirement, deaths and disabilities. Projected information regarding the retired life group leads to assumed future benefit payout. Combining future benefit payments with assumed contributions and expected investment earnings produces the net cash flow of the System each year, and thus end of year asset levels.

Projections are used for many purposes. Among them are (i) developing cash flow patterns for investment policy and asset mix consideration, (ii) exploring the effect of alternative assumptions about future experience, (iii) analyzing the impact on system funding progress of changes in the workforce, and (iv) examining the potential effect of changes in benefits on system financial activity.

Projection results are useful in demonstrating changing relationships among key elements affecting system financial activity. For example: how benefits payable and system assets will grow in future decades. Projections are not predictions of specific future events and do not provide numeric precision in absolute terms. For instance, cash flow projected to occur 10 years in the future will not be exact (except by coincidence), but understanding the changed relationships between future benefit payout and future investment income can be very useful.



SCHEDULE H

CASH FLOW PROJECTIONS BASED ON CURRENT FUNDING POLICY



**Mississippi Municipal Retirement Systems
City of Biloxi**

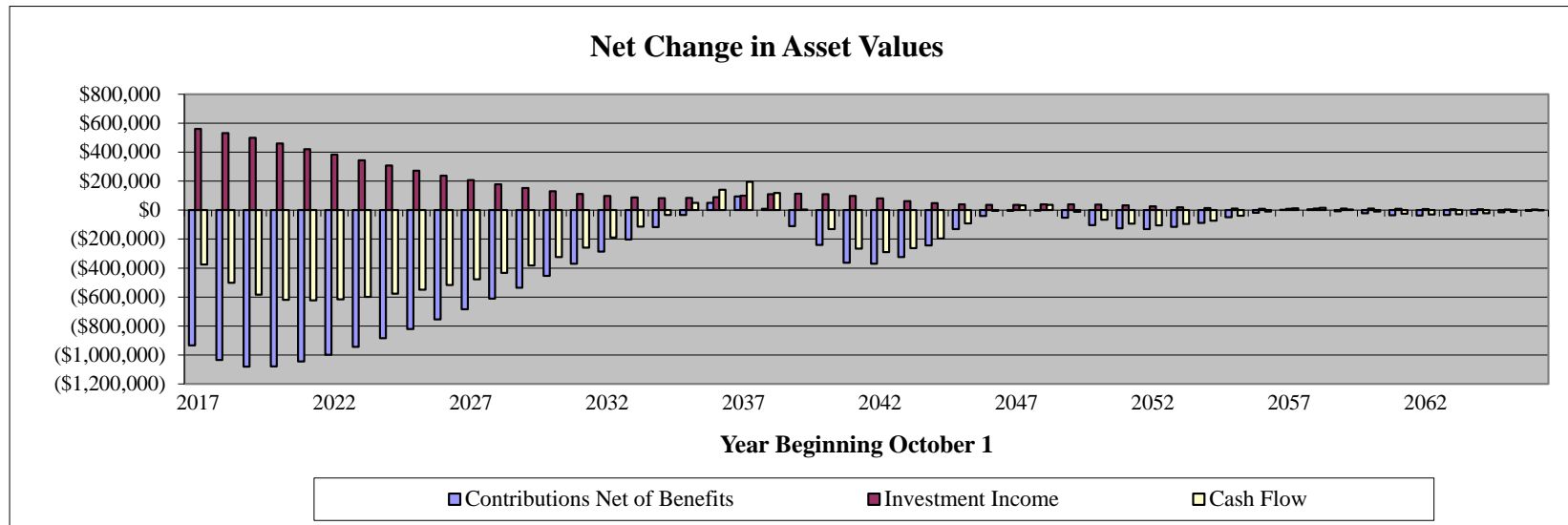
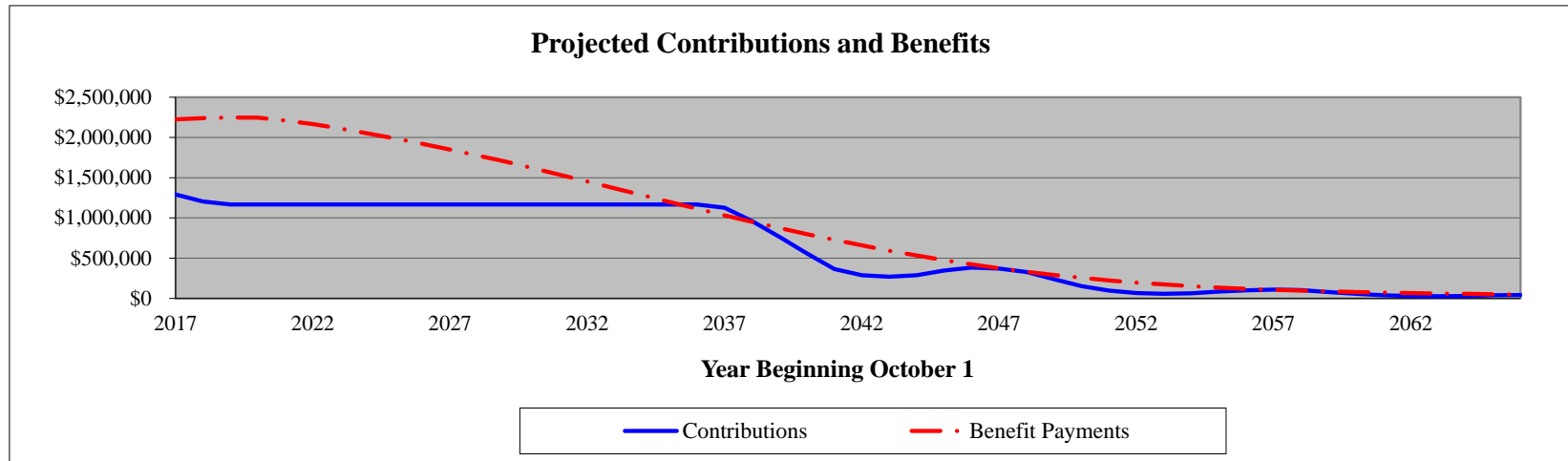
**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$574,544,932	\$9,077,017	0.00203	\$1,291,524	\$2,225,993	\$560,114	(\$374,355)	\$8,702,661	2018
2018	574,544,932	8,702,661	0.00203	1,205,108	2,239,370	532,589	(501,673)	8,200,988	2019
2019	574,544,932	8,200,988	0.00203	1,166,326	2,247,615	498,476	(582,813)	7,618,175	2020
2020	574,544,932	7,618,175	0.00203	1,166,326	2,245,974	460,645	(619,003)	6,999,173	2021
2021	574,544,932	6,999,173	0.00203	1,166,326	2,210,375	421,549	(622,500)	6,376,672	2022
2022	574,544,932	6,376,672	0.00203	1,166,326	2,164,936	382,540	(616,070)	5,760,603	2023
2023	574,544,932	5,760,603	0.00203	1,166,326	2,110,123	344,249	(599,548)	5,161,054	2024
2024	574,544,932	5,161,054	0.00203	1,166,326	2,050,595	307,182	(577,087)	4,583,967	2025
2025	574,544,932	4,583,967	0.00203	1,166,326	1,988,032	271,673	(550,033)	4,033,934	2026
2026	574,544,932	4,033,934	0.00203	1,166,326	1,921,011	238,065	(516,620)	3,517,314	2027
2031	574,544,932	1,900,824	0.00203	1,166,326	1,537,106	111,693	(259,087)	1,641,737	2032
2036	574,544,932	1,353,984	0.00194	1,166,326	1,115,874	89,623	140,075	1,494,058	2037
2041	574,544,932	1,681,421	0.00127	364,512	727,810	97,671	(265,627)	1,415,794	2042
2046	574,544,932	577,062	0.00074	382,559	423,606	36,196	(4,851)	572,211	2047
2051	574,544,932	563,137	0.00039	98,641	225,105	32,559	(93,905)	469,232	2052
2056	574,544,932	157,159	0.00021	101,288	120,135	9,612	(9,235)	147,924	2057
2061	574,544,932	169,841	0.00013	38,202	73,105	9,923	(24,980)	144,861	2062
2066	574,544,932	55,756	0.00008	42,832	47,805	3,465	(1,508)	54,248	2067



Mississippi Municipal Retirement Systems
City of Biloxi

50 Year Cash Flow Projection
Based on Valuation Assumptions



**Mississippi Municipal Retirement Systems
City of Clarksdale**



**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments**

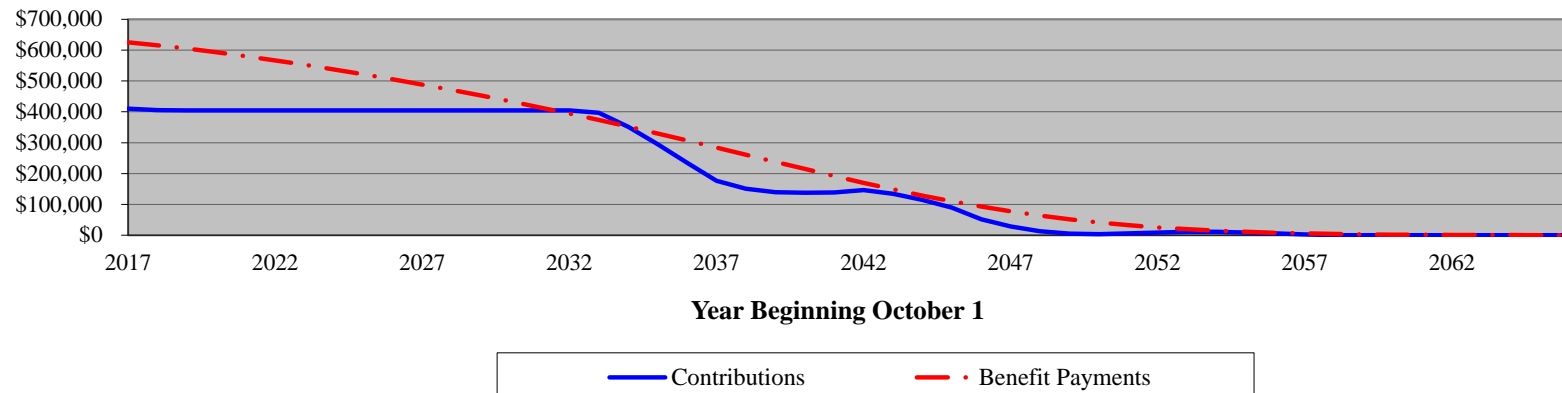
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$85,193,003	\$1,569,785	0.00475	\$410,374	\$625,366	\$95,159	(\$119,833)	\$1,449,952	2018
2018	85,193,003	1,449,952	0.00475	405,945	615,662	87,538	(122,179)	1,327,773	2019
2019	85,193,003	1,327,773	0.00475	404,667	604,925	79,899	(120,359)	1,207,414	2020
2020	85,193,003	1,207,414	0.00475	404,667	593,173	72,452	(116,054)	1,091,359	2021
2021	85,193,003	1,091,359	0.00475	404,667	580,454	65,315	(110,472)	980,887	2022
2022	85,193,003	980,887	0.00475	404,667	566,837	58,570	(103,600)	877,287	2023
2023	85,193,003	877,287	0.00475	404,667	552,411	52,298	(95,446)	781,841	2024
2024	85,193,003	781,841	0.00475	404,667	537,268	46,578	(86,023)	695,818	2025
2025	85,193,003	695,818	0.00475	404,667	521,482	41,491	(75,324)	620,495	2026
2026	85,193,003	620,495	0.00475	404,667	505,102	37,119	(63,316)	557,179	2027
2031	85,193,003	452,866	0.00475	404,667	414,345	29,127	19,449	472,315	2032
2036	85,193,003	611,304	0.00361	235,388	307,442	37,430	(34,624)	576,680	2037
2041	85,193,003	290,030	0.00225	138,735	192,037	17,147	(36,155)	253,875	2042
2046	85,193,003	243,854	0.00109	51,328	92,683	14,528	(26,827)	217,027	2047
2051	85,193,003	68,986	0.00038	5,841	32,425	3,634	(22,950)	46,036	2052
2056	85,193,003	22,225	0.00009	5,641	8,027	1,368	(1,018)	21,207	2057
2061	85,193,003	12,649	0.00002	0	1,363	779	(584)	12,066	2062
2066	85,193,003	13,079	0.00000	0	133	846	713	13,792	2067



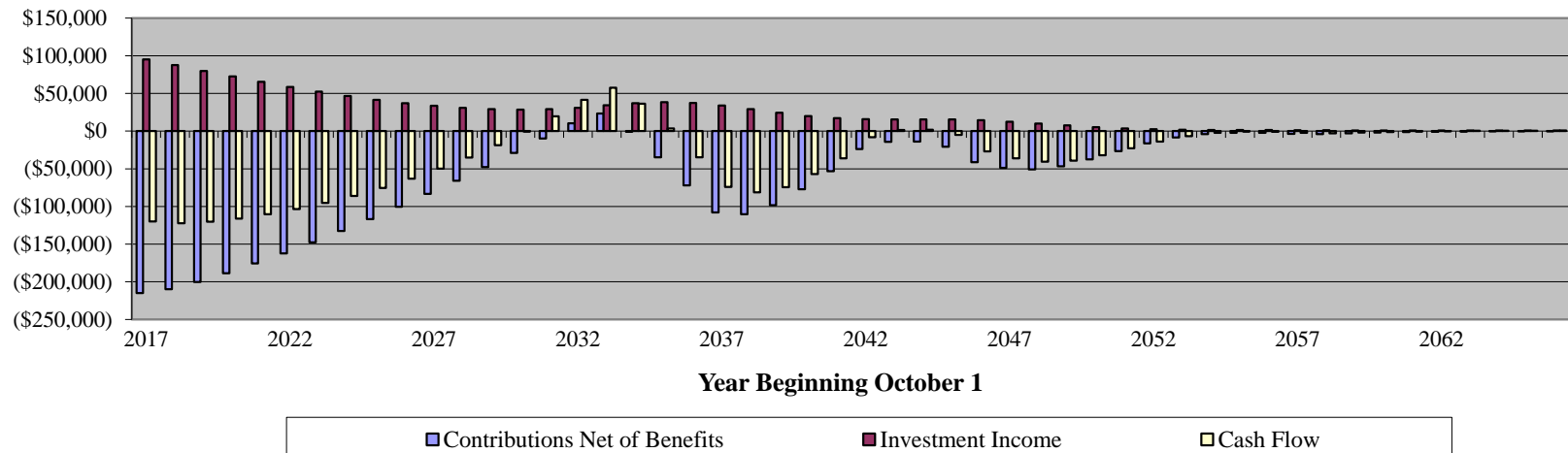
Mississippi Municipal Retirement Systems
City of Clarksdale

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Clinton**

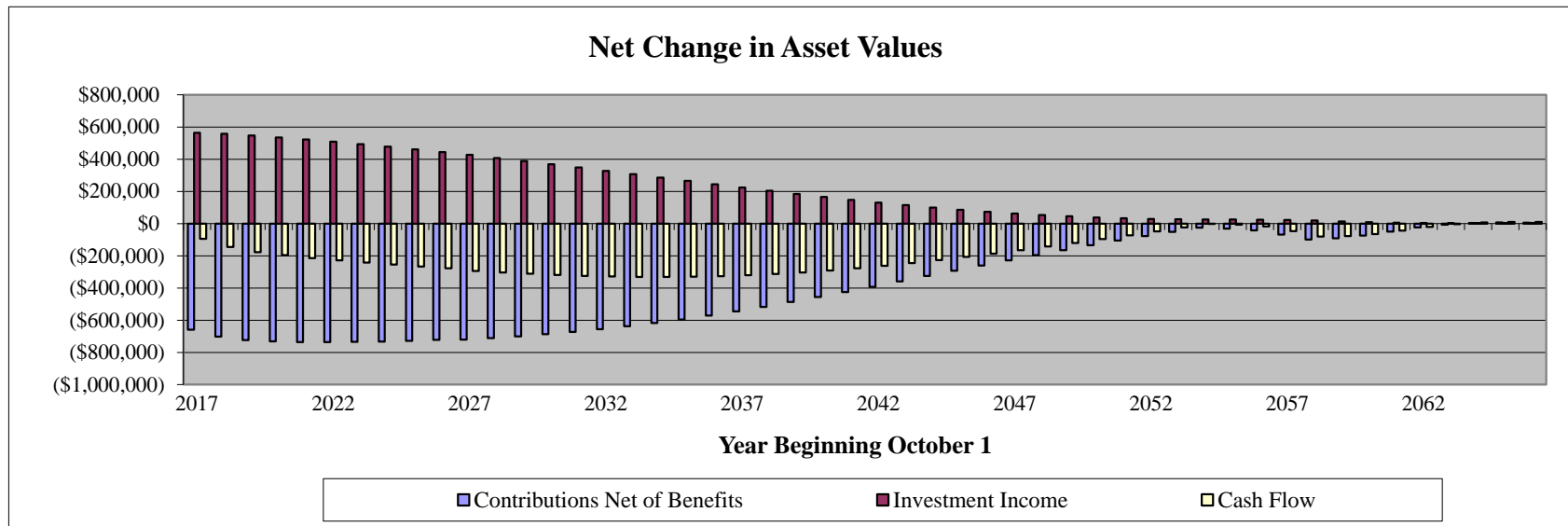
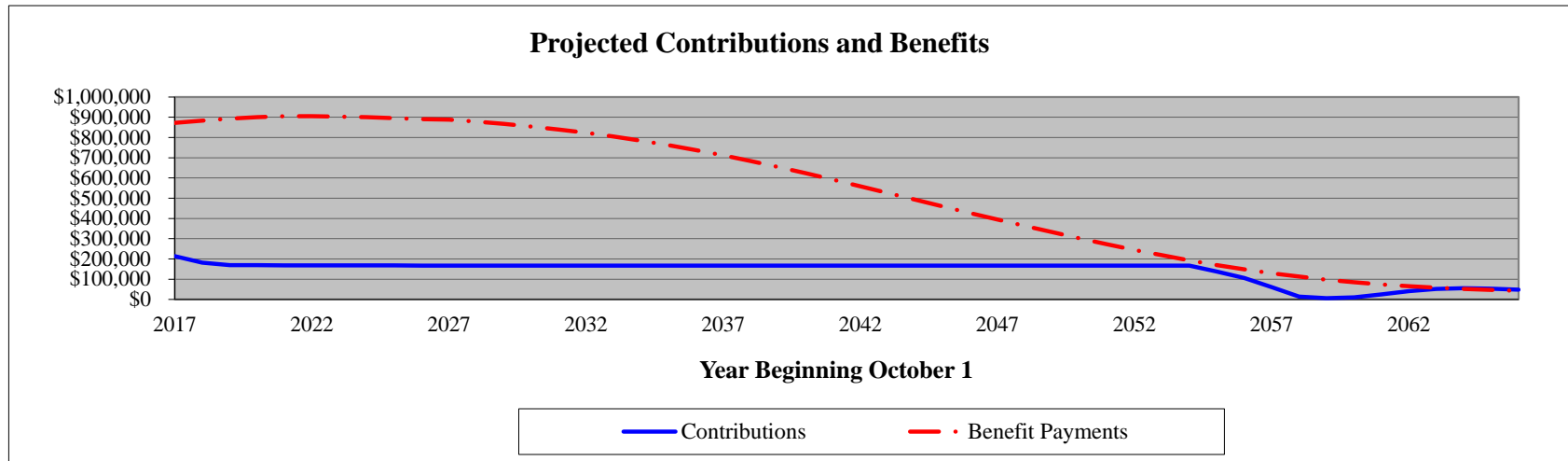
**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$208,729,466	\$9,010,413	0.00080	\$213,655	\$872,889	\$564,589	(\$94,645)	\$8,915,768	2018
2018	208,729,466	8,915,768	0.00080	181,717	883,693	557,070	(144,906)	8,770,862	2019
2019	208,729,466	8,770,862	0.00080	169,220	893,094	546,950	(176,924)	8,593,938	2020
2020	208,729,466	8,593,938	0.00080	168,813	900,188	535,210	(196,165)	8,397,773	2021
2021	208,729,466	8,397,773	0.00080	168,480	905,142	522,291	(214,371)	8,183,402	2022
2022	208,729,466	8,183,402	0.00080	168,207	904,910	508,355	(228,348)	7,955,053	2023
2023	208,729,466	7,955,053	0.00080	167,983	903,326	493,556	(241,787)	7,713,266	2024
2024	208,729,466	7,713,266	0.00080	167,800	900,365	477,929	(254,636)	7,458,630	2025
2025	208,729,466	7,458,630	0.00080	167,650	895,995	461,512	(266,833)	7,191,797	2026
2026	208,729,466	7,191,797	0.00080	167,527	890,180	444,350	(278,303)	6,913,494	2027
2031	208,729,466	5,683,711	0.00080	166,984	839,706	347,922	(324,800)	5,358,911	2032
2036	208,729,466	4,036,019	0.00080	166,984	738,079	244,073	(327,022)	3,708,997	2037
2041	208,729,466	2,479,976	0.00080	166,984	591,845	147,608	(277,253)	2,202,723	2042
2046	208,729,466	1,263,464	0.00080	166,984	427,094	73,805	(186,305)	1,077,158	2047
2051	208,729,466	552,494	0.00080	166,984	272,368	32,541	(72,843)	479,650	2052
2056	208,729,466	399,581	0.00071	105,988	148,424	24,615	(17,821)	381,760	2057
2061	208,729,466	112,282	0.00036	24,302	74,346	5,698	(44,346)	67,937	2062
2066	208,729,466	59,835	0.00020	47,873	42,351	4,066	9,588	69,424	2067



Mississippi Municipal Retirement Systems
City of Clinton

50 Year Cash Flow Projection
Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems
City of Columbus**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments**

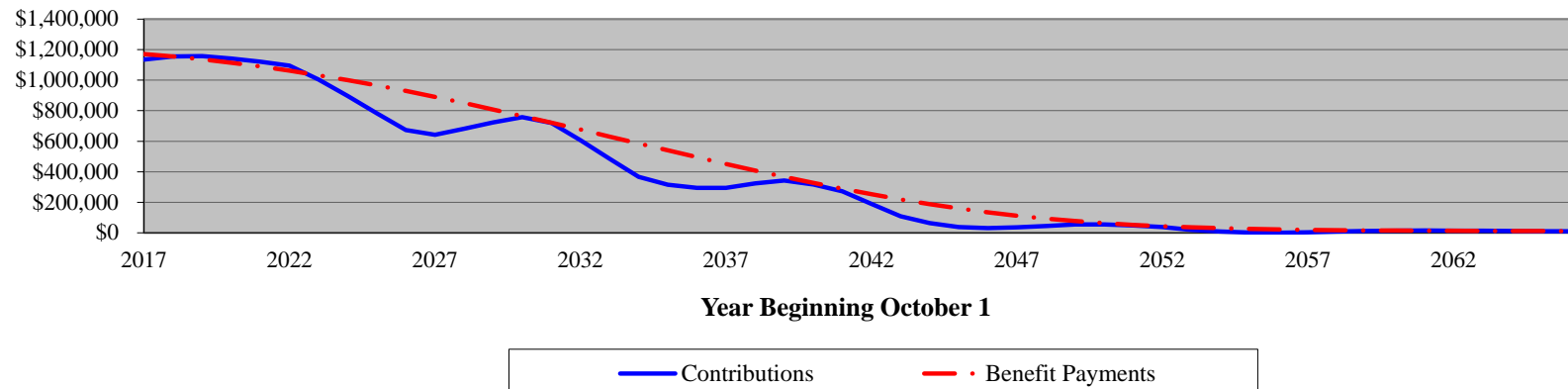
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$199,814,257	\$1,013,244	0.00582	\$1,135,129	\$1,171,069	\$64,711	\$28,771	\$1,042,015	2018
2018	199,814,257	1,042,015	0.00579	1,154,824	1,156,331	67,683	66,176	1,108,191	2019
2019	199,814,257	1,108,191	0.00569	1,157,777	1,137,282	72,688	93,183	1,201,374	2020
2020	199,814,257	1,201,374	0.00558	1,142,044	1,114,849	78,959	106,154	1,307,528	2021
2021	199,814,257	1,307,528	0.00545	1,120,458	1,089,803	85,970	116,625	1,424,153	2022
2022	199,814,257	1,424,153	0.00532	1,096,064	1,062,253	93,652	127,463	1,551,616	2023
2023	199,814,257	1,551,616	0.00517	1,004,229	1,032,328	99,956	71,857	1,623,473	2024
2024	199,814,257	1,623,473	0.00501	896,982	1,000,145	102,226	(937)	1,622,537	2025
2025	199,814,257	1,622,537	0.00483	783,280	965,871	99,624	(82,967)	1,539,569	2026
2026	199,814,257	1,539,569	0.00465	673,294	929,680	91,871	(164,515)	1,375,054	2027
2031	199,814,257	1,161,509	0.00361	720,640	720,778	75,494	75,356	1,236,866	2032
2036	199,814,257	860,745	0.00248	294,653	495,796	49,514	(151,629)	709,116	2037
2041	199,814,257	579,404	0.00144	272,162	288,470	37,140	20,832	600,236	2042
2046	199,814,257	304,186	0.00067	31,089	134,147	16,475	(86,583)	217,604	2047
2051	199,814,257	98,403	0.00026	48,728	52,162	6,286	2,852	101,255	2052
2056	199,814,257	56,021	0.00011	516	22,284	2,945	(18,823)	37,198	2057
2061	199,814,257	10,055	0.00007	15,047	13,750	695	1,992	12,047	2062
2066	199,814,257	18,537	0.00005	9,509	10,652	1,168	25	18,561	2067



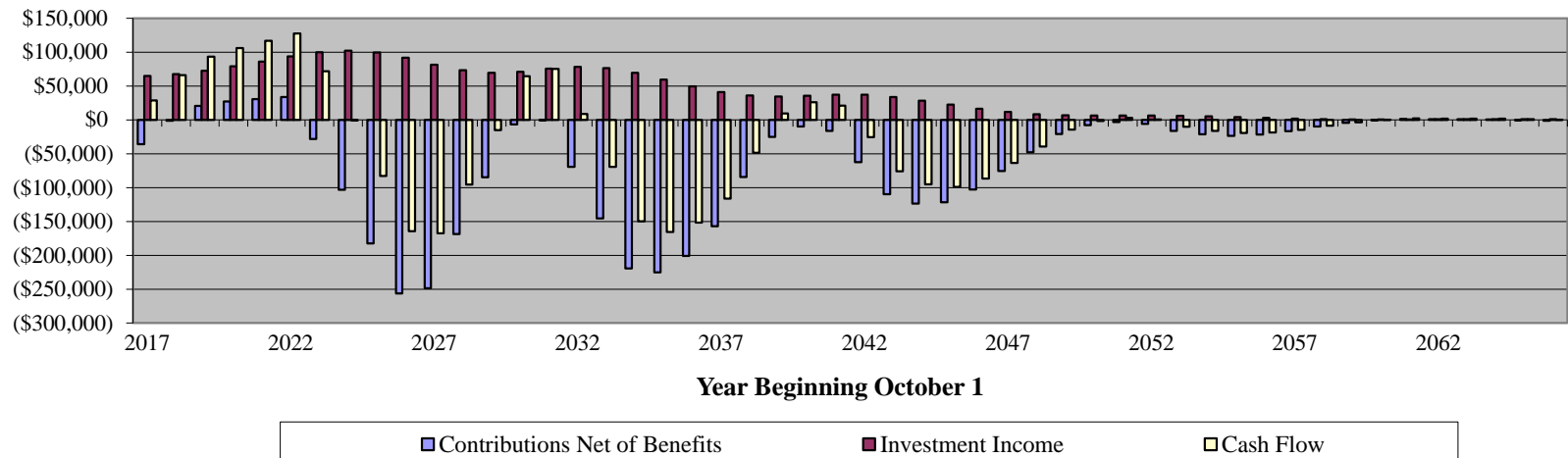
Mississippi Municipal Retirement Systems
City of Columbus

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Greenville**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

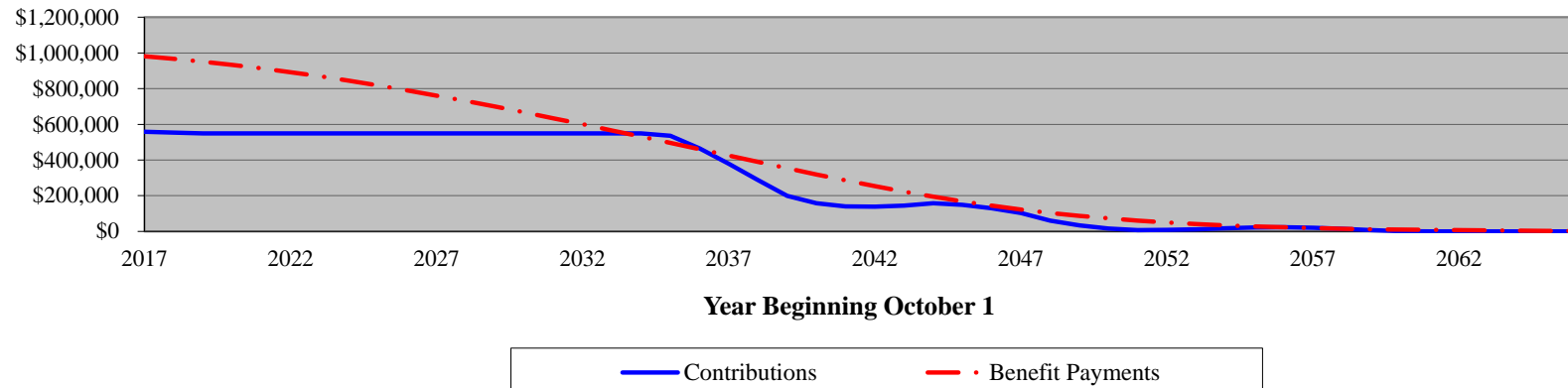
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$198,785,980	\$3,234,825	0.00276	\$558,235	\$981,022	\$196,739	(\$226,048)	\$3,008,778	2018
2018	198,785,980	3,008,778	0.00276	553,619	966,999	182,347	(231,033)	2,777,745	2019
2019	198,785,980	2,777,745	0.00276	548,649	951,059	167,681	(234,729)	2,543,016	2020
2020	198,785,980	2,543,016	0.00276	548,649	933,240	152,994	(231,597)	2,311,419	2021
2021	198,785,980	2,311,419	0.00276	548,649	913,576	138,569	(226,358)	2,085,061	2022
2022	198,785,980	2,085,061	0.00276	548,649	892,127	124,542	(218,936)	1,866,125	2023
2023	198,785,980	1,866,125	0.00276	548,649	868,964	111,052	(209,263)	1,656,863	2024
2024	198,785,980	1,656,863	0.00276	548,649	844,148	98,244	(197,255)	1,459,608	2025
2025	198,785,980	1,459,608	0.00276	548,649	817,779	86,265	(182,865)	1,276,743	2026
2026	198,785,980	1,276,743	0.00276	548,649	789,964	75,269	(166,046)	1,110,696	2027
2031	198,785,980	664,101	0.00276	548,649	633,830	40,442	(44,739)	619,362	2032
2036	198,785,980	772,990	0.00232	465,440	460,227	50,411	55,624	828,614	2037
2041	198,785,980	553,862	0.00144	139,863	285,744	31,335	(114,546)	439,316	2042
2046	198,785,980	270,765	0.00073	130,187	144,320	17,148	3,015	273,780	2047
2051	198,785,980	157,615	0.00031	7,915	60,695	8,557	(44,223)	113,392	2052
2056	198,785,980	33,261	0.00012	22,843	22,904	2,160	2,099	35,360	2057
2061	198,785,980	31,589	0.00004	0	8,107	1,794	(6,313)	25,276	2062
2066	198,785,980	10,147	0.00001	0	2,630	575	(2,055)	8,092	2067



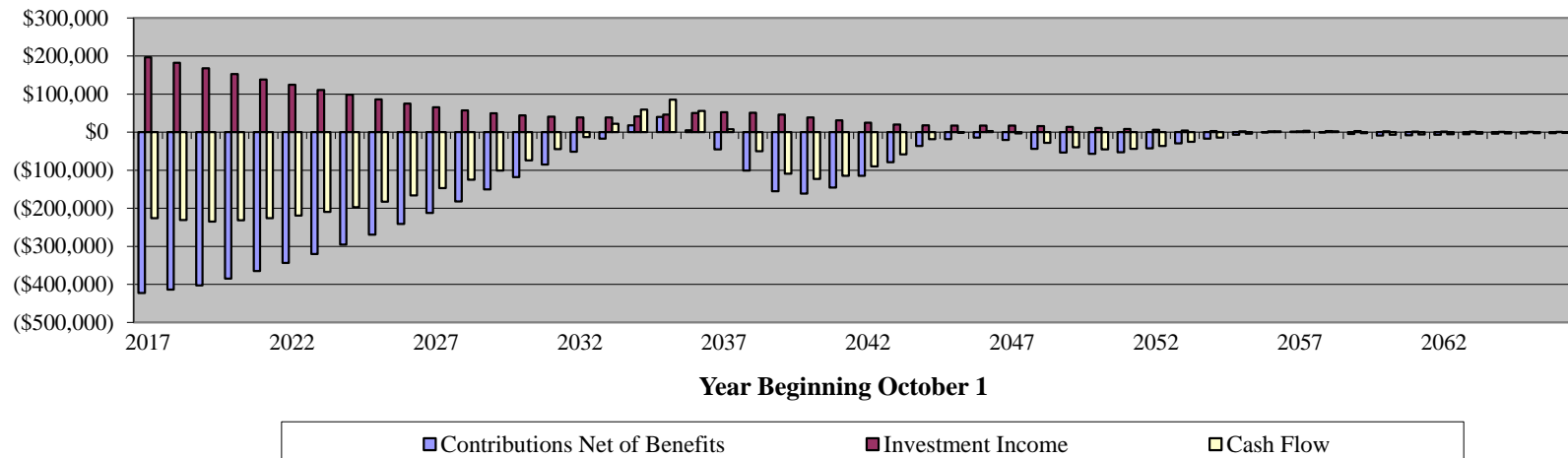
Mississippi Municipal Retirement Systems
City of Greenville

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Greenwood**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

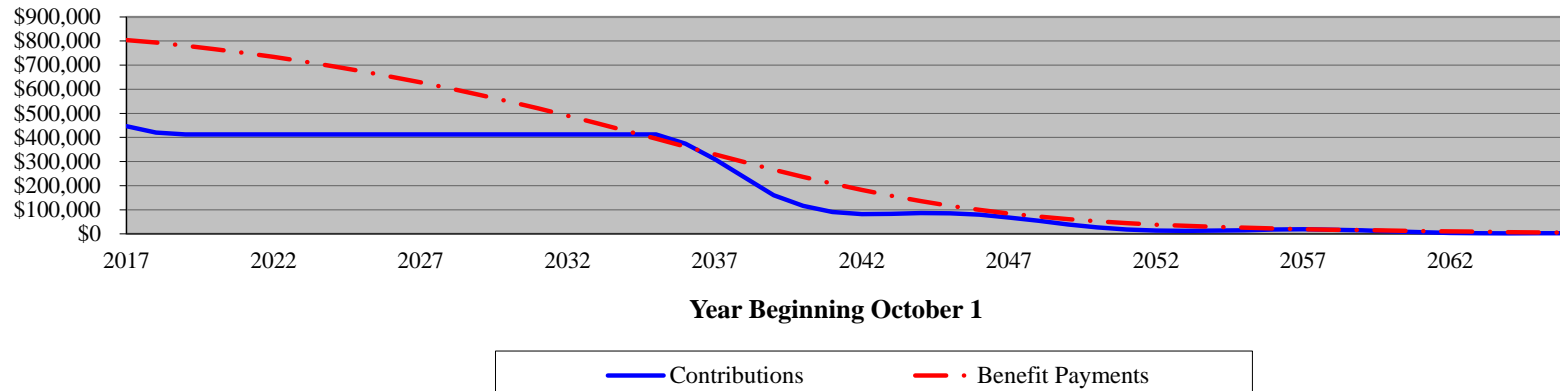
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$110,569,319	\$3,025,621	0.00373	\$446,720	\$804,064	\$185,235	(\$172,109)	\$2,853,512	2018
2018	110,569,319	2,853,512	0.00373	420,716	793,491	173,554	(199,221)	2,654,291	2019
2019	110,569,319	2,654,291	0.00373	412,424	780,930	160,741	(207,765)	2,446,526	2020
2020	110,569,319	2,446,526	0.00373	412,424	766,706	147,691	(206,591)	2,239,935	2021
2021	110,569,319	2,239,935	0.00373	412,424	750,994	134,766	(203,804)	2,036,132	2022
2022	110,569,319	2,036,132	0.00373	412,424	733,863	122,066	(199,373)	1,836,759	2023
2023	110,569,319	1,836,759	0.00373	412,424	715,365	109,699	(193,242)	1,643,517	2024
2024	110,569,319	1,643,517	0.00373	412,424	695,527	97,773	(185,330)	1,458,188	2025
2025	110,569,319	1,458,188	0.00373	412,424	674,352	86,404	(175,524)	1,282,663	2026
2026	110,569,319	1,282,663	0.00373	412,424	651,870	75,714	(163,732)	1,118,931	2027
2031	110,569,319	626,000	0.00373	412,424	520,221	37,242	(70,555)	555,445	2032
2036	110,569,319	564,521	0.00328	373,993	362,213	37,071	48,851	613,373	2037
2041	110,569,319	450,032	0.00188	91,135	208,225	25,507	(91,583)	358,449	2042
2046	110,569,319	162,630	0.00090	79,214	99,131	9,934	(9,983)	152,647	2047
2051	110,569,319	106,531	0.00040	18,374	44,272	6,096	(19,802)	86,729	2052
2056	110,569,319	29,944	0.00020	17,446	22,170	1,795	(2,929)	27,015	2057
2061	110,569,319	29,976	0.00011	6,402	11,769	1,777	(3,590)	26,385	2062
2066	110,569,319	8,876	0.00004	2,358	4,962	494	(2,110)	6,767	2067



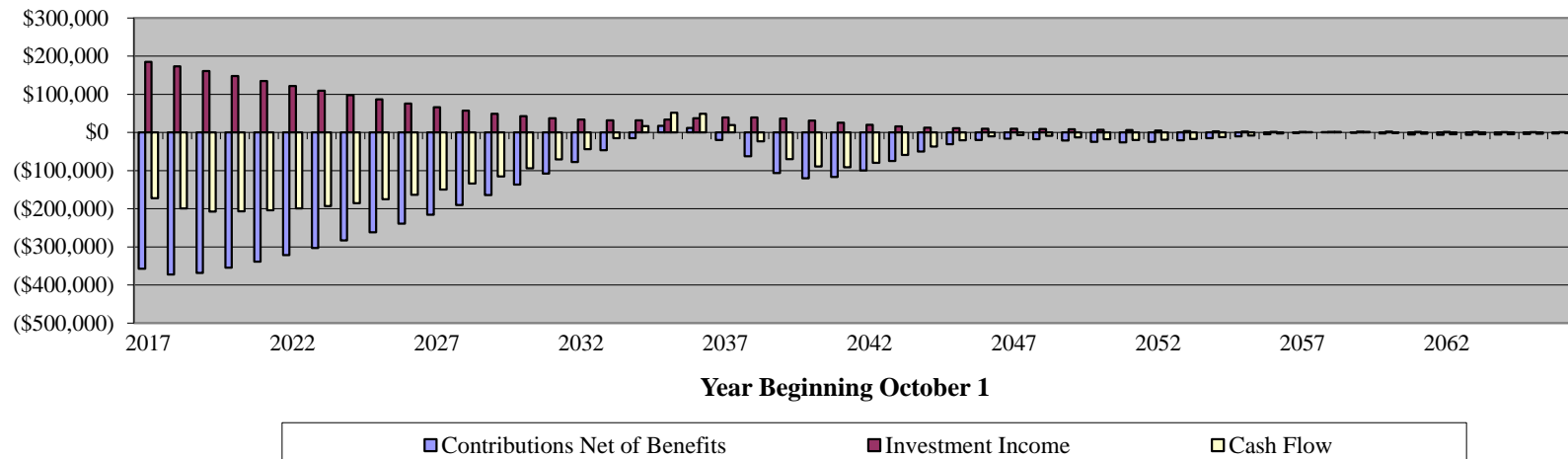
Mississippi Municipal Retirement Systems
City of Greenwood

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Gulfport**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

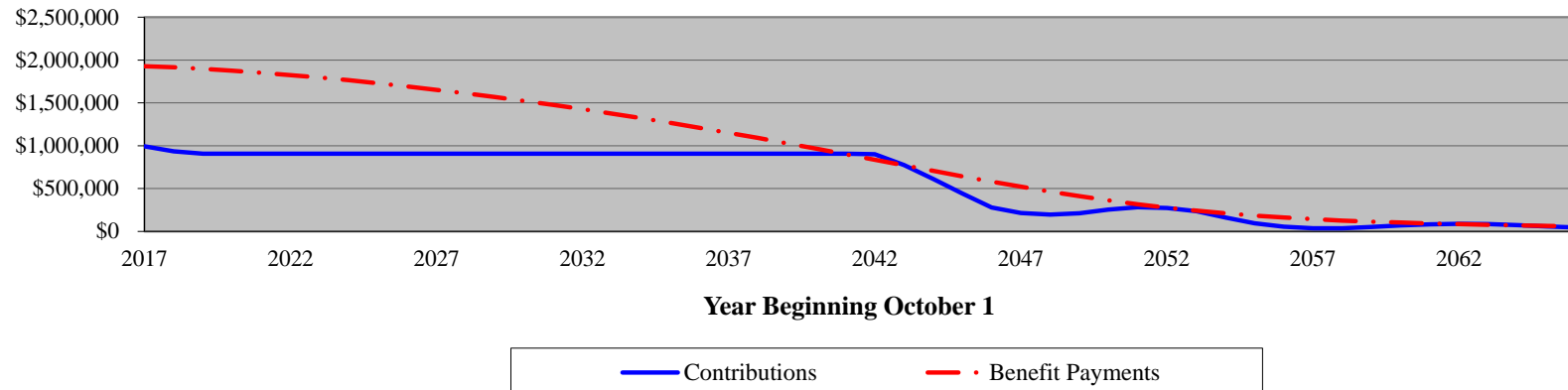
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$737,909,261	\$9,438,218	0.00123	\$993,273	\$1,927,593	\$583,597	(\$350,723)	\$9,087,494	2018
2018	737,909,261	9,087,494	0.00123	935,300	1,915,280	559,339	(420,641)	8,666,854	2019
2019	737,909,261	8,666,854	0.00123	907,628	1,897,266	531,689	(457,949)	8,208,905	2020
2020	737,909,261	8,208,905	0.00123	907,628	1,875,245	502,626	(464,991)	7,743,914	2021
2021	737,909,261	7,743,914	0.00123	907,628	1,850,725	473,186	(469,911)	7,274,003	2022
2022	737,909,261	7,274,003	0.00123	907,628	1,823,847	443,502	(472,717)	6,801,286	2023
2023	737,909,261	6,801,286	0.00123	907,628	1,795,030	413,697	(473,705)	6,327,581	2024
2024	737,909,261	6,327,581	0.00123	907,628	1,763,873	383,903	(472,342)	5,855,239	2025
2025	737,909,261	5,855,239	0.00123	907,628	1,729,186	354,310	(467,248)	5,387,991	2026
2026	737,909,261	5,387,991	0.00123	907,628	1,691,497	325,145	(458,724)	4,929,267	2027
2031	737,909,261	3,231,943	0.00123	907,628	1,474,817	191,933	(375,256)	2,856,687	2032
2036	737,909,261	1,657,050	0.00123	907,628	1,209,524	98,051	(203,845)	1,453,205	2037
2041	737,909,261	1,161,522	0.00122	907,628	900,680	75,721	82,669	1,244,191	2042
2046	737,909,261	1,375,133	0.00079	279,528	581,800	79,714	(222,558)	1,152,576	2047
2051	737,909,261	456,101	0.00043	284,018	317,879	28,563	(5,298)	450,804	2052
2056	737,909,261	422,638	0.00022	55,960	162,041	24,078	(82,003)	340,635	2057
2061	737,909,261	95,699	0.00013	82,237	93,400	5,863	(5,300)	90,398	2062
2066	737,909,261	128,743	0.00008	44,391	58,981	7,902	(6,688)	122,054	2067



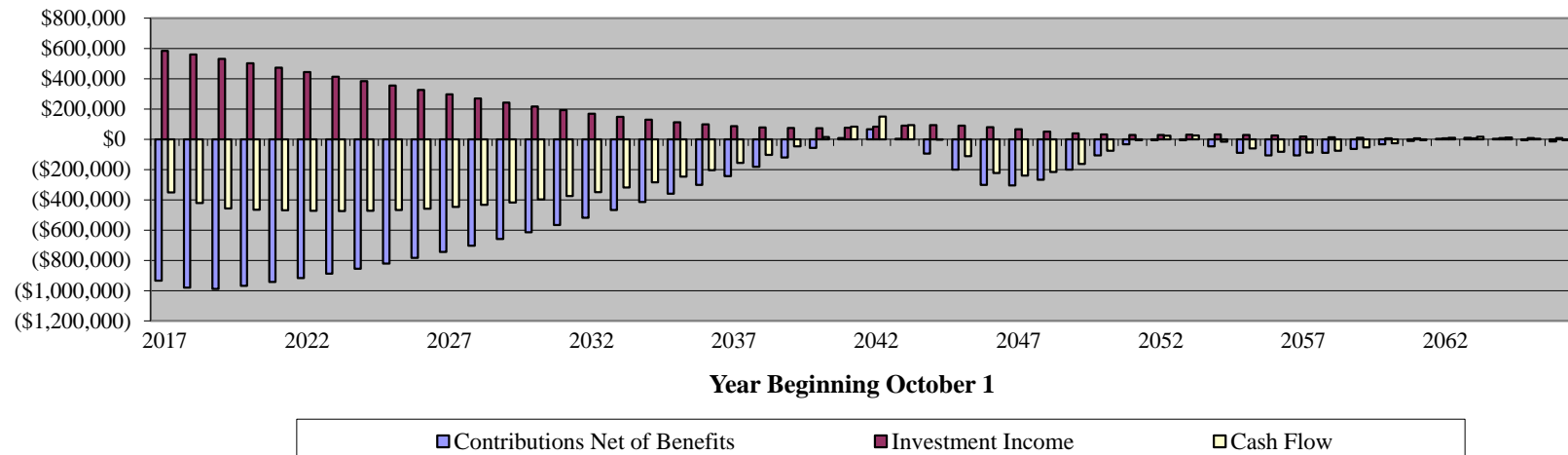
Mississippi Municipal Retirement Systems
City of Gulfport

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Hattiesburg**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

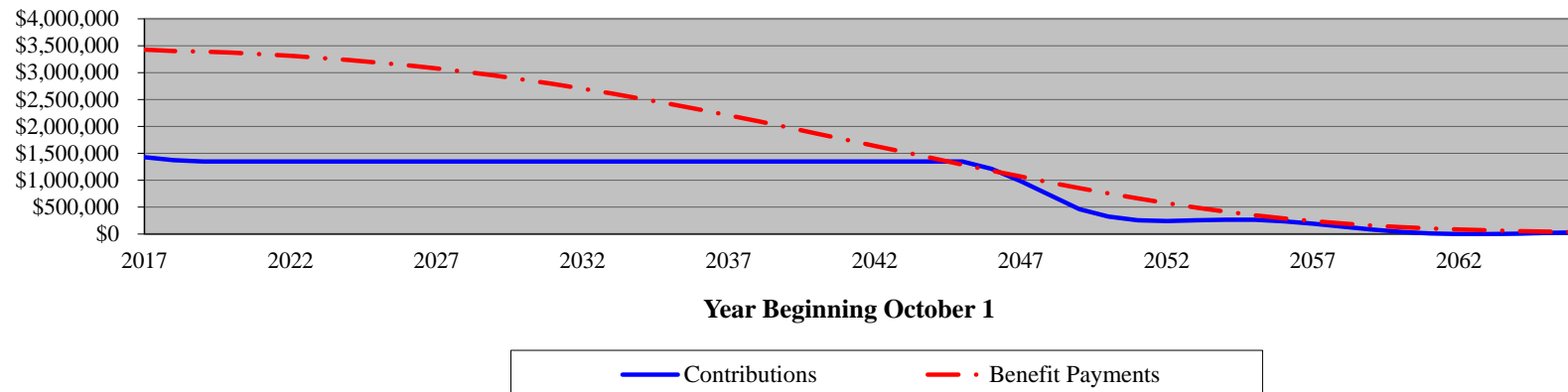
<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2017	\$437,346,637	\$21,374,106	0.00308	\$1,428,243	\$3,427,450	\$1,325,365	(\$673,842)	\$20,700,264	2018
2018	437,346,637	20,700,264	0.00308	1,374,362	3,402,545	1,280,639	(747,544)	19,952,720	2019
2019	437,346,637	19,952,720	0.00308	1,347,028	3,389,897	1,231,579	(811,290)	19,141,430	2020
2020	437,346,637	19,141,430	0.00308	1,347,028	3,369,816	1,179,487	(843,301)	18,298,129	2021
2021	437,346,637	18,298,129	0.00308	1,347,028	3,344,210	1,125,492	(871,690)	17,426,439	2022
2022	437,346,637	17,426,439	0.00308	1,347,028	3,312,018	1,069,862	(895,128)	16,531,311	2023
2023	437,346,637	16,531,311	0.00308	1,347,028	3,275,618	1,012,843	(915,747)	15,615,564	2024
2024	437,346,637	15,615,564	0.00308	1,347,028	3,233,948	954,652	(932,268)	14,683,296	2025
2025	437,346,637	14,683,296	0.00308	1,347,028	3,186,992	895,557	(944,407)	13,738,889	2026
2026	437,346,637	13,738,889	0.00308	1,347,028	3,134,445	835,851	(951,566)	12,787,323	2027
2031	437,346,637	9,020,897	0.00308	1,347,028	2,787,627	540,276	(900,323)	8,120,574	2032
2036	437,346,637	4,890,998	0.00308	1,347,028	2,312,391	287,034	(678,329)	4,212,669	2037
2041	437,346,637	2,233,826	0.00308	1,347,028	1,754,672	132,159	(275,485)	1,958,340	2042
2046	437,346,637	1,941,788	0.00269	1,210,067	1,178,253	127,234	159,048	2,100,836	2047
2051	437,346,637	1,446,916	0.00151	256,875	660,756	81,130	(322,751)	1,124,165	2052
2056	437,346,637	502,669	0.00067	238,962	292,186	30,971	(22,253)	480,416	2057
2061	437,346,637	315,869	0.00024	12,411	104,887	17,573	(74,903)	240,966	2062
2066	437,346,637	44,158	0.00009	29,380	38,534	2,577	(6,577)	37,581	2067



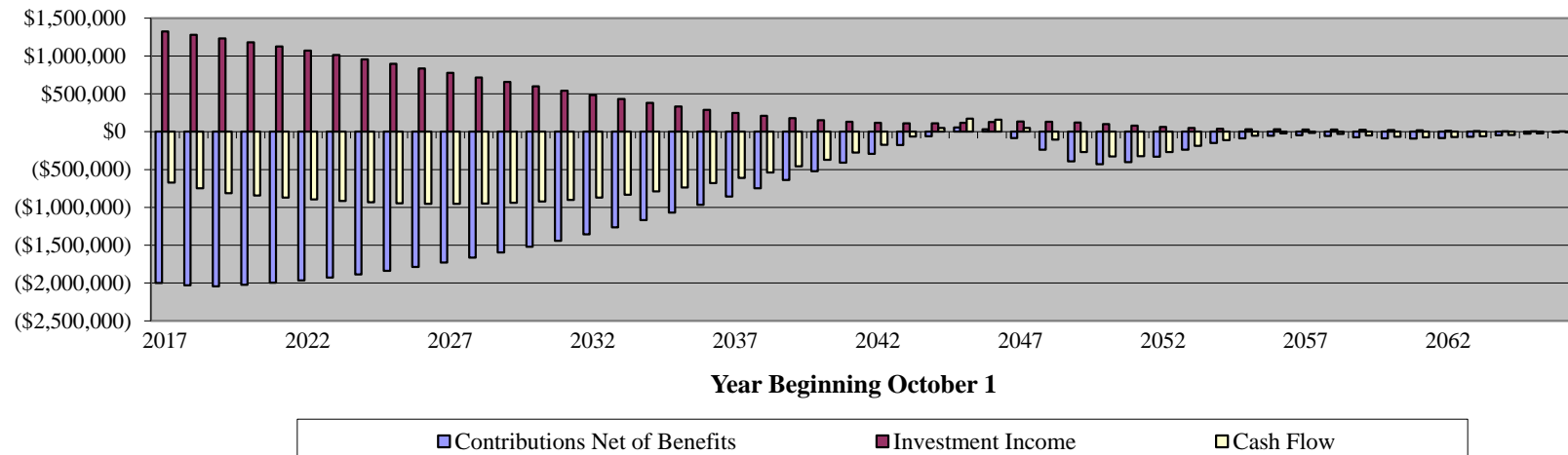
Mississippi Municipal Retirement Systems
City of Hattiesburg

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values



**Mississippi Municipal Retirement Systems
City of Jackson**



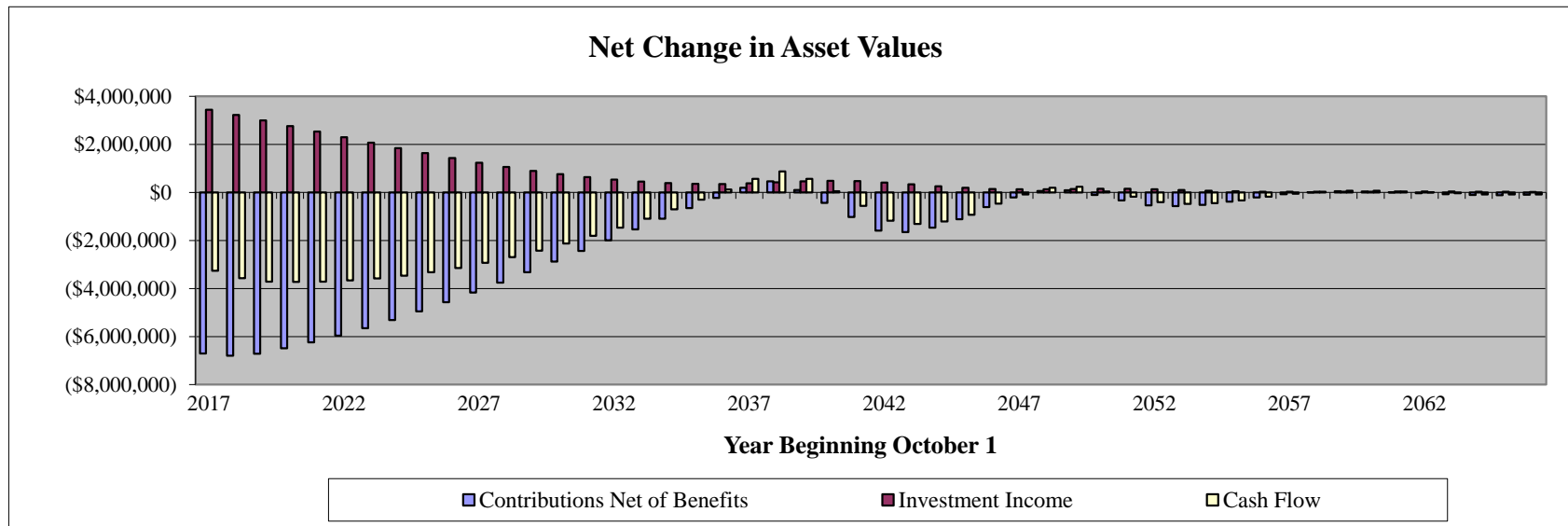
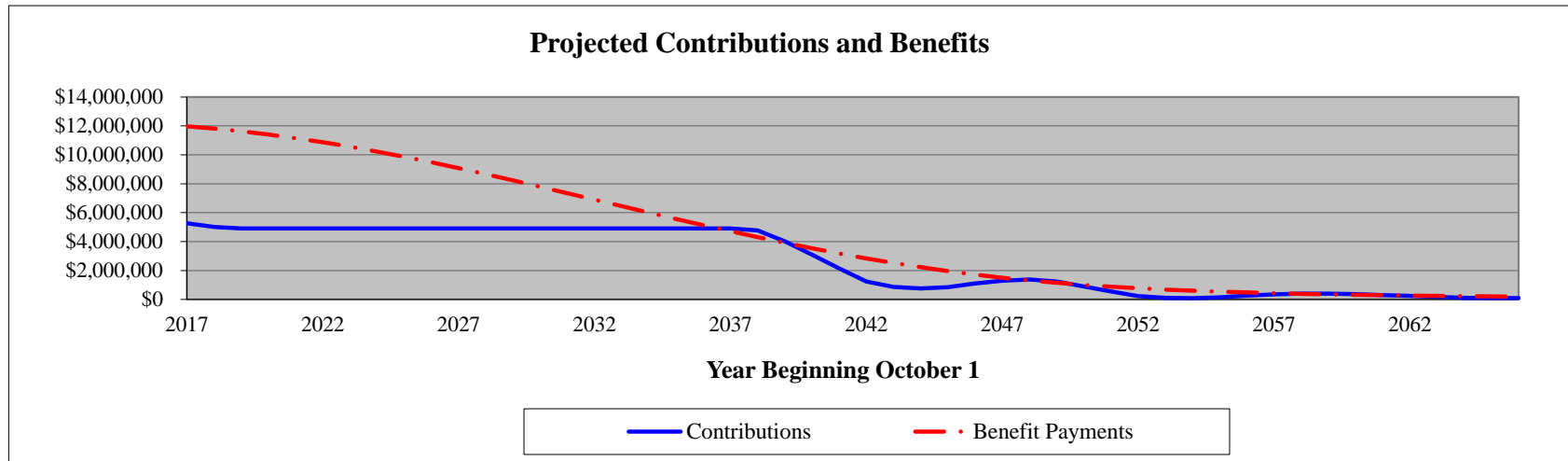
**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments**

<u>Year Beginning July 1</u>	<u>Value of Assessed Property</u>	<u>MVA Balance July 1</u>	<u>Millage Rate</u>	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	<u>MVA Balance June 30</u>	<u>Year Ending June 30</u>
2017	\$1,197,598,015	\$56,253,334	0.00410	\$5,268,079	\$11,973,348	\$3,441,976	(\$3,263,293)	\$52,990,041	2018
2018	1,197,598,015	52,990,041	0.00410	5,017,936	11,814,403	3,226,945	(3,569,522)	49,420,519	2019
2019	1,197,598,015	49,420,519	0.00410	4,910,152	11,623,955	2,997,570	(3,716,233)	45,704,286	2020
2020	1,197,598,015	45,704,286	0.00410	4,910,152	11,401,839	2,763,120	(3,728,567)	41,975,720	2021
2021	1,197,598,015	41,975,720	0.00410	4,910,152	11,150,019	2,528,819	(3,711,048)	38,264,672	2022
2022	1,197,598,015	38,264,672	0.00410	4,910,152	10,869,594	2,296,571	(3,662,871)	34,601,801	2023
2023	1,197,598,015	34,601,801	0.00410	4,910,152	10,560,659	2,068,367	(3,582,140)	31,019,661	2024
2024	1,197,598,015	31,019,661	0.00410	4,910,152	10,225,194	1,846,258	(3,468,784)	27,550,877	2025
2025	1,197,598,015	27,550,877	0.00410	4,910,152	9,865,192	1,632,303	(3,322,737)	24,228,141	2026
2026	1,197,598,015	24,228,141	0.00410	4,910,152	9,482,953	1,428,553	(3,144,248)	21,083,893	2027
2031	1,197,598,015	10,901,354	0.00410	4,910,152	7,348,570	630,587	(1,807,831)	9,093,522	2032
2036	1,197,598,015	5,527,457	0.00410	4,910,152	5,137,116	352,025	125,061	5,652,519	2037
2041	1,197,598,015	7,706,457	0.00265	2,149,588	3,175,616	468,099	(557,929)	7,148,528	2042
2046	1,197,598,015	2,511,639	0.00144	1,108,718	1,720,559	143,685	(468,156)	2,043,482	2047
2051	1,197,598,015	2,419,540	0.00073	547,641	876,369	146,755	(181,973)	2,237,567	2052
2056	1,197,598,015	576,807	0.00040	265,049	478,102	30,677	(182,376)	394,431	2057
2061	1,197,598,015	508,964	0.00024	301,127	292,333	33,364	42,158	551,122	2062
2066	1,197,598,015	343,727	0.00016	87,151	188,415	19,103	(82,161)	261,566	2067



Mississippi Municipal Retirement Systems
City of Jackson

50 Year Cash Flow Projection
Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems
City of Laurel**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

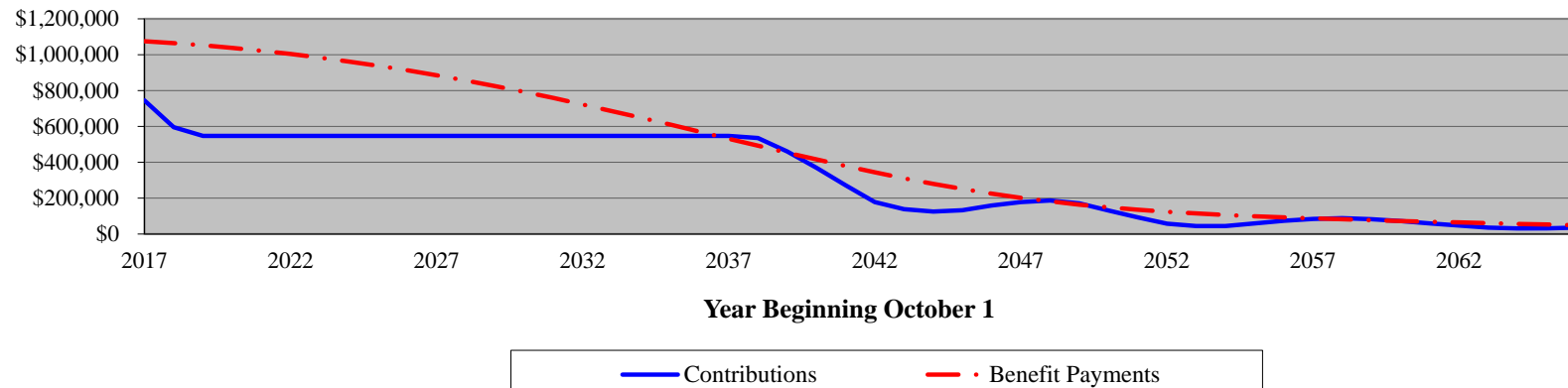
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$166,322,618	\$4,226,007	0.00329	\$744,879	\$1,075,011	\$264,130	(\$66,002)	\$4,160,005	2018
2018	166,322,618	4,160,005	0.00329	595,851	1,064,674	255,403	(213,420)	3,946,585	2019
2019	166,322,618	3,946,585	0.00329	547,201	1,052,358	240,369	(264,788)	3,681,797	2020
2020	166,322,618	3,681,797	0.00329	547,201	1,038,068	223,615	(267,252)	3,414,545	2021
2021	166,322,618	3,414,545	0.00329	547,201	1,021,839	206,763	(267,875)	3,146,670	2022
2022	166,322,618	3,146,670	0.00329	547,201	1,003,714	189,930	(266,583)	2,880,087	2023
2023	166,322,618	2,880,087	0.00329	547,201	983,722	173,242	(263,279)	2,616,807	2024
2024	166,322,618	2,616,807	0.00329	547,201	961,867	156,828	(257,838)	2,358,969	2025
2025	166,322,618	2,358,969	0.00329	547,201	938,144	140,827	(250,116)	2,108,853	2026
2026	166,322,618	2,108,853	0.00329	547,201	912,538	125,389	(239,948)	1,868,905	2027
2031	166,322,618	1,063,929	0.00329	547,201	758,112	62,409	(148,502)	915,426	2032
2036	166,322,618	620,967	0.00329	547,201	570,748	39,610	16,063	637,030	2037
2041	166,322,618	848,776	0.00228	271,843	379,034	51,742	(55,449)	793,326	2042
2046	166,322,618	321,905	0.00136	159,600	225,547	18,814	(47,133)	274,772	2047
2051	166,322,618	320,385	0.00081	92,465	135,413	19,451	(23,497)	296,889	2052
2056	166,322,618	108,468	0.00056	73,647	92,776	6,439	(12,690)	95,778	2057
2061	166,322,618	132,115	0.00041	59,701	68,737	8,298	(738)	131,378	2062
2066	166,322,618	68,514	0.00029	36,152	48,940	4,044	(8,744)	59,770	2067



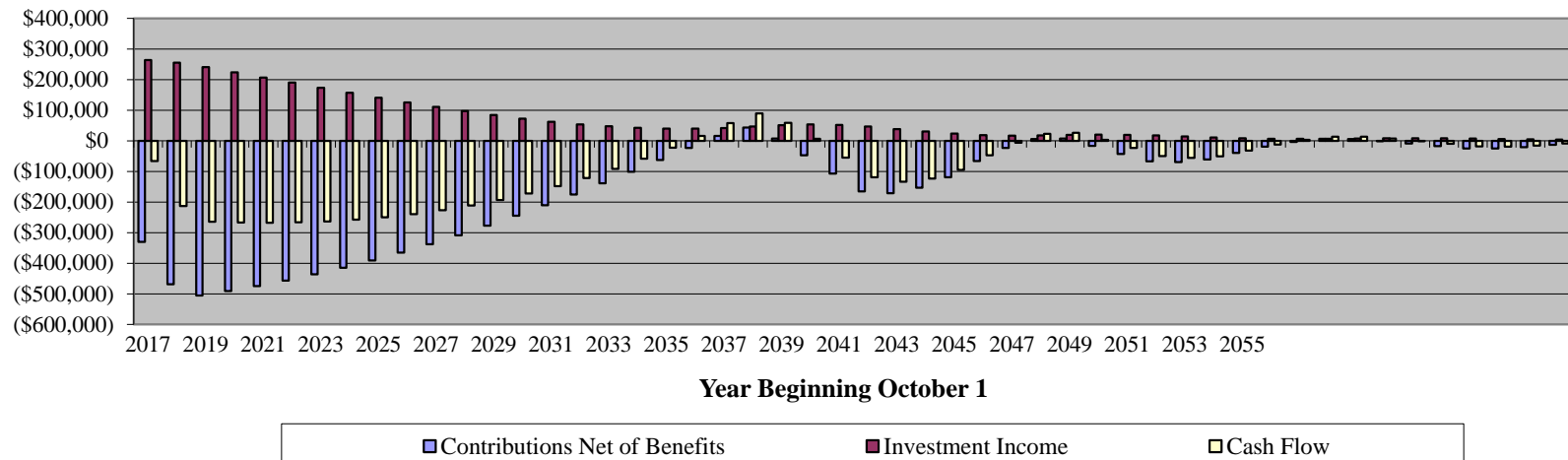
Mississippi Municipal Retirement Systems
City of Laurel

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of McComb**

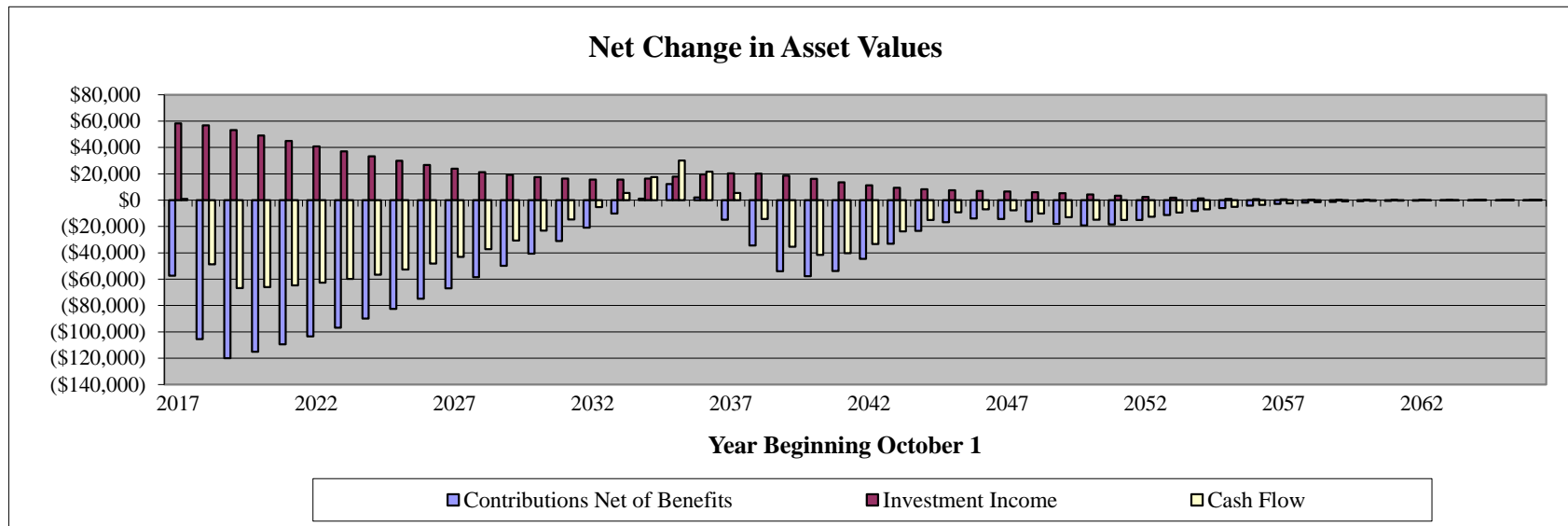
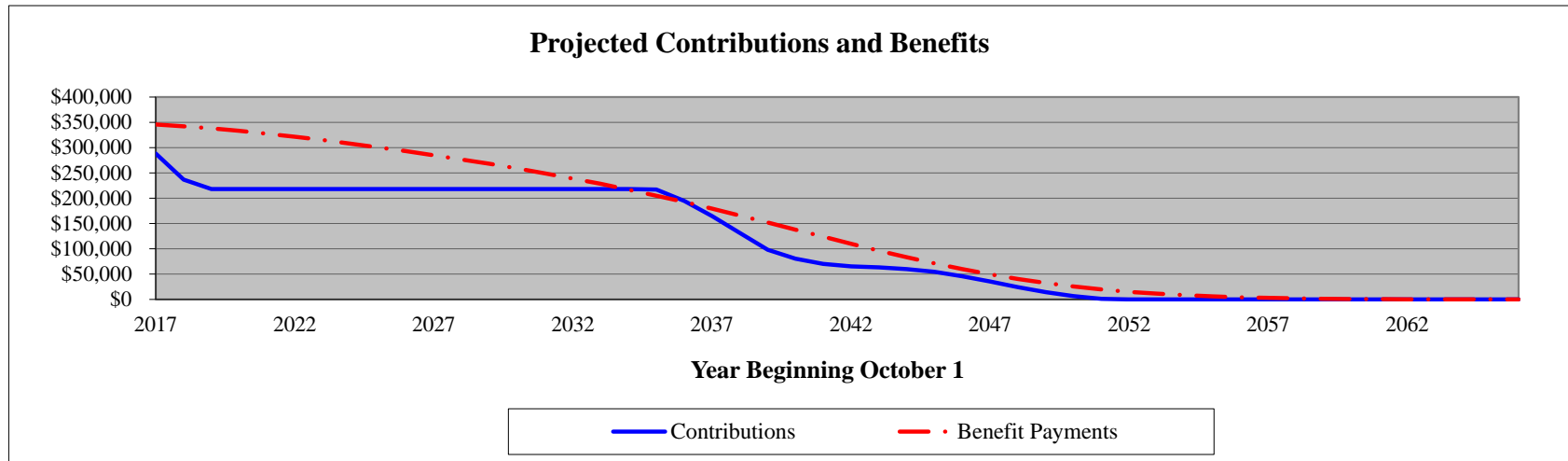
**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$100,951,928	\$925,228	0.00216	\$288,335	\$345,760	\$58,303	\$878	\$926,107	2018
2018	100,951,928	926,107	0.00216	236,732	342,274	56,821	(48,721)	877,386	2019
2019	100,951,928	877,386	0.00216	218,056	338,040	53,192	(66,792)	810,594	2020
2020	100,951,928	810,594	0.00216	218,056	333,117	49,008	(66,053)	744,541	2021
2021	100,951,928	744,541	0.00216	218,056	327,565	44,892	(64,617)	679,923	2022
2022	100,951,928	679,923	0.00216	218,056	321,467	40,887	(62,524)	617,399	2023
2023	100,951,928	617,399	0.00216	218,056	314,915	37,033	(59,826)	557,573	2024
2024	100,951,928	557,573	0.00216	218,056	307,963	33,366	(56,541)	501,032	2025
2025	100,951,928	501,032	0.00216	218,056	300,639	29,925	(52,658)	448,374	2026
2026	100,951,928	448,374	0.00216	218,056	292,969	26,748	(48,165)	400,209	2027
2031	100,951,928	266,161	0.00216	218,056	249,105	16,307	(14,742)	251,419	2032
2036	100,951,928	299,380	0.00191	194,601	192,473	19,528	21,656	321,036	2037
2041	100,951,928	235,457	0.00123	70,041	123,861	13,583	(40,237)	195,220	2042
2046	100,951,928	113,978	0.00059	45,785	59,765	6,961	(7,019)	106,960	2047
2051	100,951,928	61,315	0.00020	1,310	19,807	3,394	(15,103)	46,212	2052
2056	100,951,928	12,249	0.00004	0	4,173	663	(3,510)	8,739	2057
2061	100,951,928	3,191	0.00000	0	498	191	(307)	2,884	2062
2066	100,951,928	2,970	0.00000	0	28	192	164	3,133	2067



Mississippi Municipal Retirement Systems
City of McComb

50 Year Cash Flow Projection
Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems
City of Meridian**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

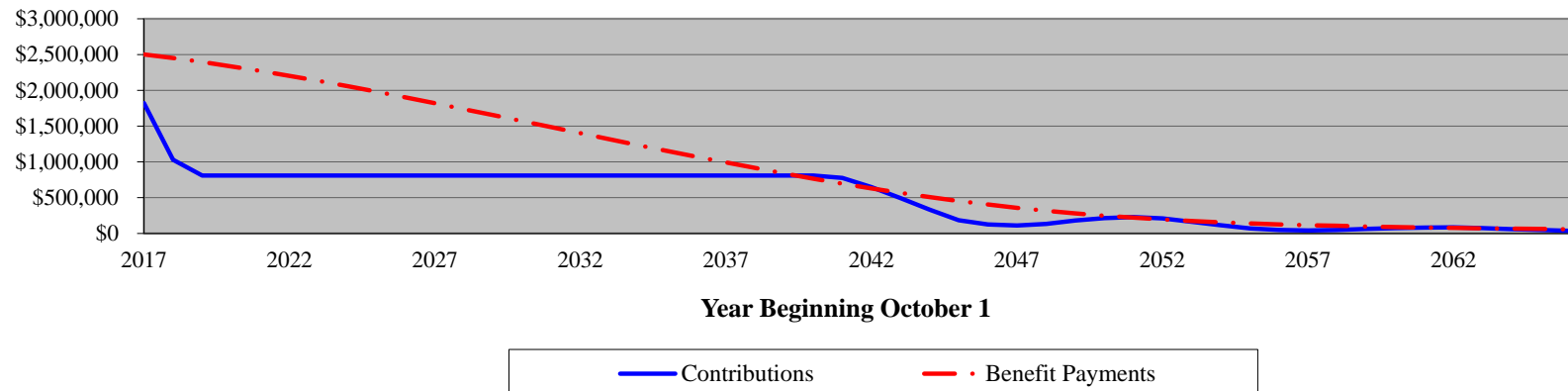
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$342,244,755	\$12,553,521	0.00236	\$1,821,582	\$2,501,509	\$794,229	\$114,302	\$12,667,823	2018
2018	342,244,755	12,667,823	0.00236	1,030,157	2,450,734	777,967	(642,610)	12,025,213	2019
2019	342,244,755	12,025,213	0.00236	807,698	2,395,290	730,854	(856,738)	11,168,475	2020
2020	342,244,755	11,168,475	0.00236	807,698	2,335,395	677,082	(850,615)	10,317,861	2021
2021	342,244,755	10,317,861	0.00236	807,698	2,271,321	623,842	(839,781)	9,478,080	2022
2022	342,244,755	9,478,080	0.00236	807,698	2,203,352	571,430	(824,224)	8,653,856	2023
2023	342,244,755	8,653,856	0.00236	807,698	2,131,869	520,143	(804,028)	7,849,828	2024
2024	342,244,755	7,849,828	0.00236	807,698	2,057,274	470,267	(779,309)	7,070,518	2025
2025	342,244,755	7,070,518	0.00236	807,698	1,979,982	422,084	(750,200)	6,320,319	2026
2026	342,244,755	6,320,319	0.00236	807,698	1,900,453	375,865	(716,890)	5,603,428	2027
2031	342,244,755	3,146,277	0.00236	807,698	1,484,372	182,862	(493,812)	2,652,464	2032
2036	342,244,755	1,255,992	0.00236	807,698	1,070,818	73,223	(189,897)	1,066,095	2037
2041	342,244,755	1,023,960	0.00204	777,107	697,133	69,116	149,090	1,173,051	2042
2046	342,244,755	968,720	0.00118	124,617	403,555	54,044	(224,894)	743,826	2047
2051	342,244,755	289,973	0.00064	228,438	220,021	19,117	27,534	317,506	2052
2056	342,244,755	299,192	0.00037	48,633	127,686	16,919	(62,134)	237,058	2057
2061	342,244,755	92,083	0.00024	83,384	83,518	5,981	5,847	97,930	2062
2066	342,244,755	117,904	0.00017	36,413	57,758	6,981	(14,364)	103,540	2067



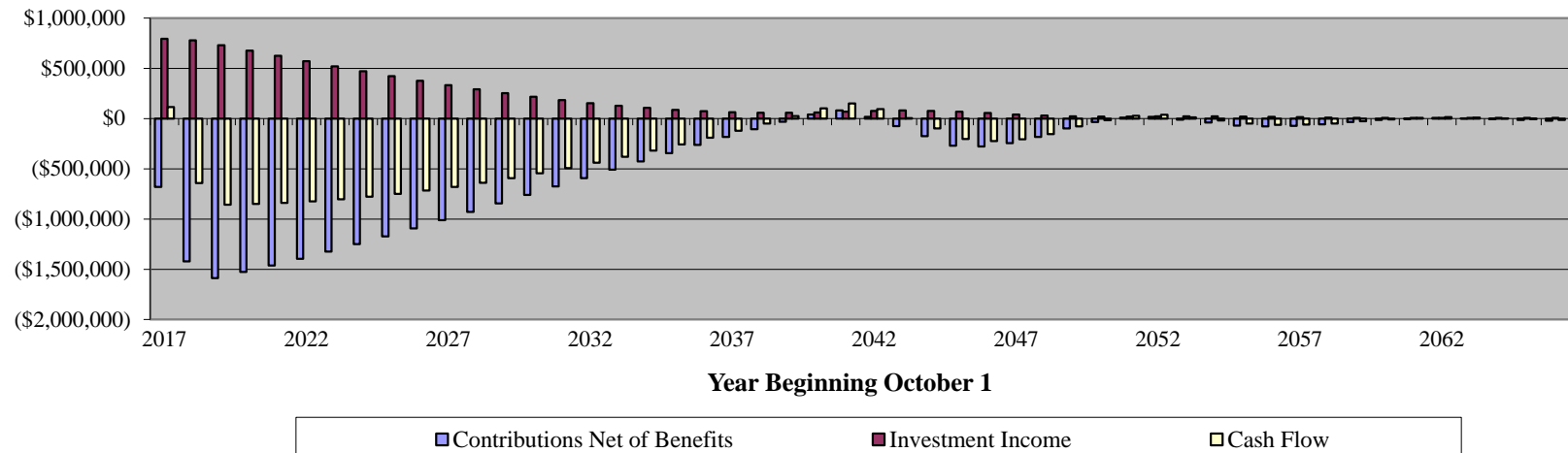
Mississippi Municipal Retirement Systems
City of Meridian

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Natchez**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

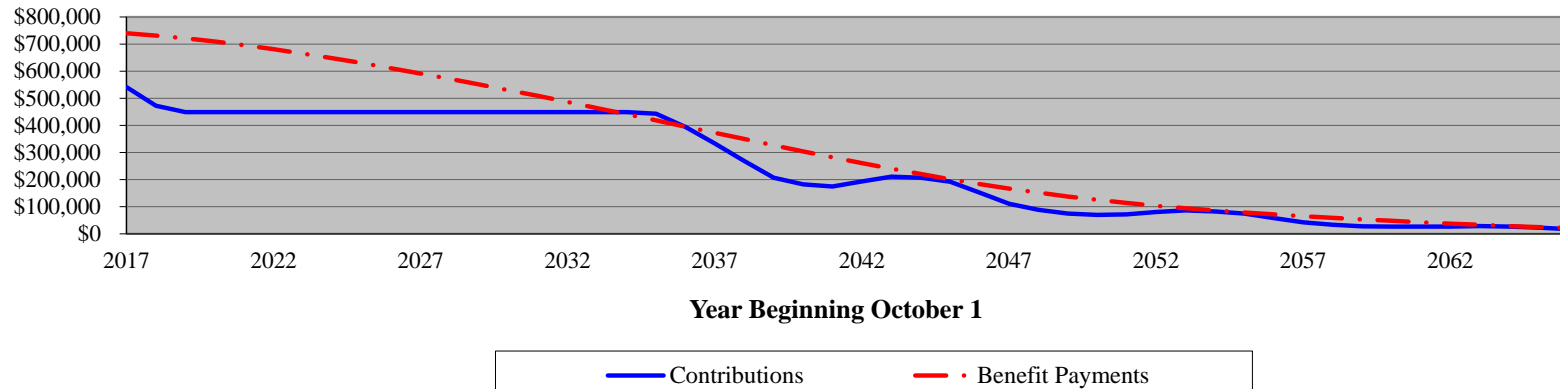
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$139,808,455	\$2,122,764	0.00321	\$541,369	\$739,971	\$131,627	(\$66,975)	\$2,055,789	2018
2018	139,808,455	2,055,789	0.00321	472,902	731,545	125,353	(133,290)	1,922,499	2019
2019	139,808,455	1,922,499	0.00321	448,785	721,327	116,244	(156,298)	1,766,200	2020
2020	139,808,455	1,766,200	0.00321	448,785	709,424	106,466	(154,173)	1,612,027	2021
2021	139,808,455	1,612,027	0.00321	448,785	695,975	96,875	(150,315)	1,461,713	2022
2022	139,808,455	1,461,713	0.00321	448,785	681,119	87,579	(144,755)	1,316,958	2023
2023	139,808,455	1,316,958	0.00321	448,785	665,027	78,685	(137,557)	1,179,401	2024
2024	139,808,455	1,179,401	0.00321	448,785	647,873	70,293	(128,795)	1,050,605	2025
2025	139,808,455	1,050,605	0.00321	448,785	629,816	62,498	(118,533)	932,073	2026
2026	139,808,455	932,073	0.00321	448,785	610,991	55,396	(106,810)	825,263	2027
2031	139,808,455	544,285	0.00321	448,785	508,312	33,474	(26,053)	518,232	2032
2036	139,808,455	635,763	0.00283	394,173	395,522	41,281	39,932	675,695	2037
2041	139,808,455	468,837	0.00202	174,482	282,269	27,026	(80,761)	388,076	2042
2046	139,808,455	358,424	0.00131	151,854	183,695	22,279	(9,562)	348,863	2047
2051	139,808,455	178,349	0.00081	71,797	113,862	10,247	(31,818)	146,532	2052
2056	139,808,455	142,712	0.00051	58,494	71,626	8,856	(4,276)	138,436	2057
2061	139,808,455	69,175	0.00031	26,713	42,755	3,983	(12,059)	57,116	2062
2066	139,808,455	48,768	0.00016	17,474	21,762	3,033	(1,255)	47,513	2067



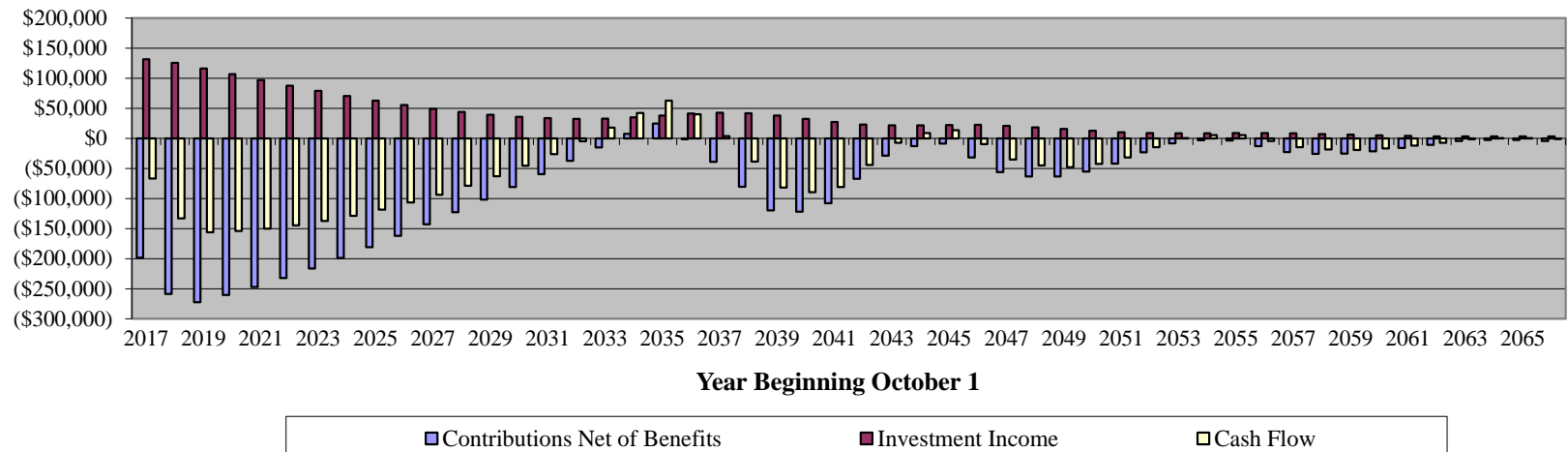
Mississippi Municipal Retirement Systems
City of Natchez

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Pascagoula**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

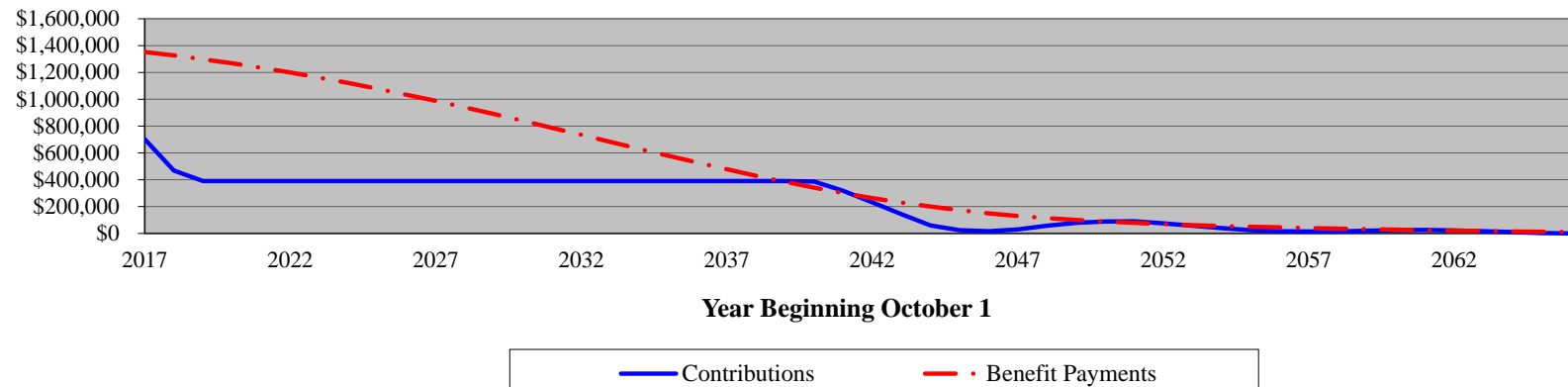
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$234,224,731	\$7,527,517	0.00167	\$702,564	\$1,351,994	\$468,514	(\$180,916)	\$7,346,601	2018
2018	234,224,731	7,346,601	0.00167	469,035	1,326,570	450,098	(407,437)	6,939,164	2019
2019	234,224,731	6,939,164	0.00167	391,155	1,298,336	422,026	(485,155)	6,454,010	2020
2020	234,224,731	6,454,010	0.00167	391,155	1,267,819	391,468	(485,196)	5,968,813	2021
2021	234,224,731	5,968,813	0.00167	391,155	1,234,982	360,980	(482,847)	5,485,966	2022
2022	234,224,731	5,485,966	0.00167	391,155	1,199,794	330,721	(477,918)	5,008,048	2023
2023	234,224,731	5,008,048	0.00167	391,155	1,161,587	300,878	(469,554)	4,538,493	2024
2024	234,224,731	4,538,493	0.00167	391,155	1,121,106	271,652	(458,299)	4,080,194	2025
2025	234,224,731	4,080,194	0.00167	391,155	1,078,484	243,226	(444,103)	3,636,091	2026
2026	234,224,731	3,636,091	0.00167	391,155	1,033,833	215,788	(426,890)	3,209,201	2027
2031	234,224,731	1,734,097	0.00167	391,155	787,287	100,045	(296,087)	1,438,010	2032
2036	234,224,731	622,978	0.00167	391,155	527,868	36,120	(100,593)	522,385	2037
2041	234,224,731	571,677	0.00128	318,006	300,657	37,714	55,063	626,740	2042
2046	234,224,731	357,718	0.00064	16,939	150,479	18,980	(114,560)	243,158	2047
2051	234,224,731	98,147	0.00033	91,008	77,995	6,796	19,809	117,956	2052
2056	234,224,731	106,699	0.00019	15,830	44,803	6,009	(22,964)	83,735	2057
2061	234,224,731	34,492	0.00010	25,405	24,192	2,281	3,494	37,986	2062
2066	234,224,731	34,421	0.00004	96	10,498	1,905	(8,497)	25,925	2067



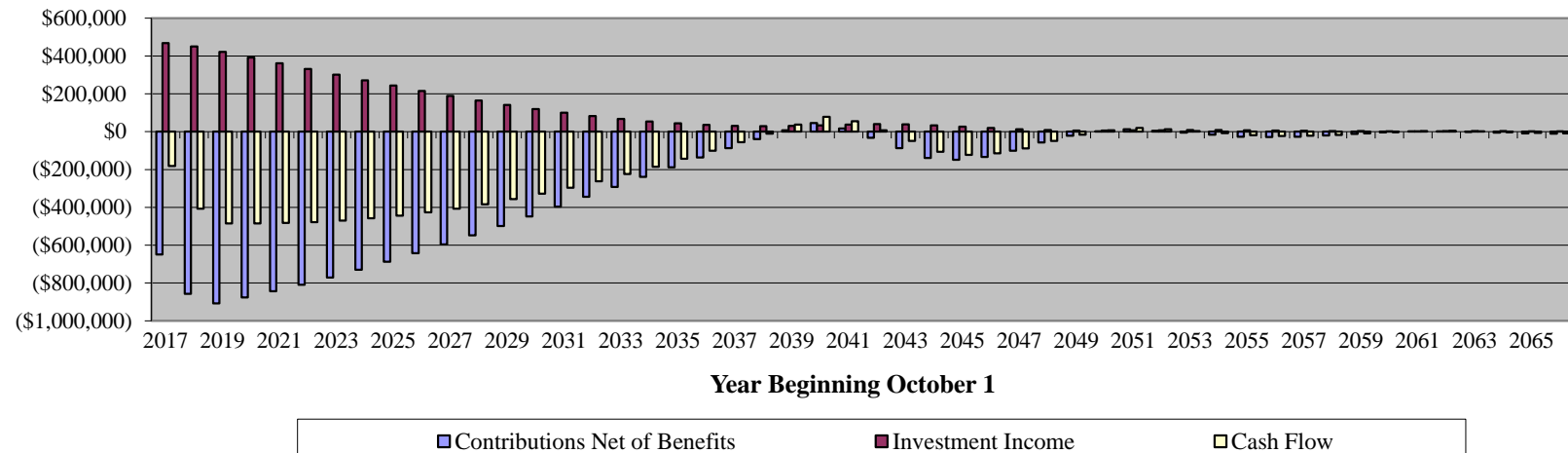
Mississippi Municipal Retirement Systems
City of Pascagoula

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Tupelo**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

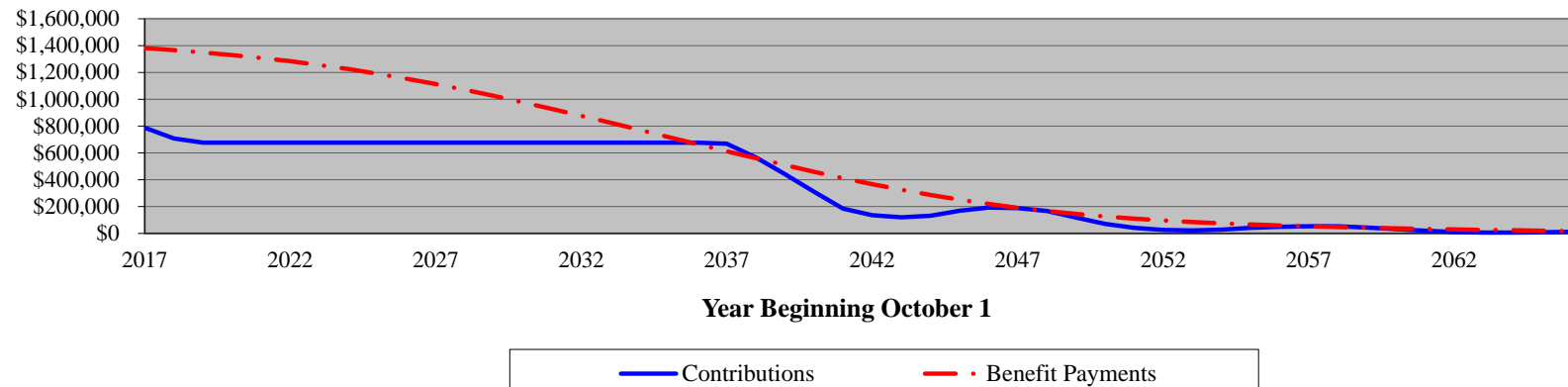
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$497,690,205	\$5,695,081	0.00136	\$788,047	\$1,381,690	\$351,191	(\$242,452)	\$5,452,629	2018
2018	497,690,205	5,452,629	0.00136	707,964	1,366,585	333,353	(325,268)	5,127,361	2019
2019	497,690,205	5,127,361	0.00136	676,859	1,349,438	311,764	(360,815)	4,766,546	2020
2020	497,690,205	4,766,546	0.00136	676,859	1,330,003	288,932	(364,212)	4,402,334	2021
2021	497,690,205	4,402,334	0.00136	676,859	1,308,019	265,962	(365,198)	4,037,135	2022
2022	497,690,205	4,037,135	0.00136	676,859	1,283,225	243,017	(363,349)	3,673,787	2023
2023	497,690,205	3,673,787	0.00136	676,859	1,255,407	220,289	(358,259)	3,315,528	2024
2024	497,690,205	3,315,528	0.00136	676,859	1,224,461	197,992	(349,610)	2,965,918	2025
2025	497,690,205	2,965,918	0.00136	676,859	1,190,386	176,358	(337,169)	2,628,749	2026
2026	497,690,205	2,628,749	0.00136	676,859	1,153,217	155,631	(320,727)	2,308,021	2027
2031	497,690,205	1,272,982	0.00136	676,859	927,575	74,724	(175,992)	1,096,990	2032
2036	497,690,205	841,715	0.00134	676,859	665,459	55,076	66,476	908,191	2037
2041	497,690,205	1,017,601	0.00083	184,957	412,650	58,861	(168,832)	848,768	2042
2046	497,690,205	305,816	0.00044	192,256	219,883	18,994	(8,633)	297,183	2047
2051	497,690,205	290,988	0.00022	41,422	110,395	16,708	(52,265)	238,723	2052
2056	497,690,205	68,593	0.00012	49,943	59,021	4,168	(4,910)	63,683	2057
2061	497,690,205	88,075	0.00007	20,904	33,787	5,313	(7,570)	80,504	2062
2066	497,690,205	24,317	0.00004	11,388	17,675	1,379	(4,908)	19,409	2067



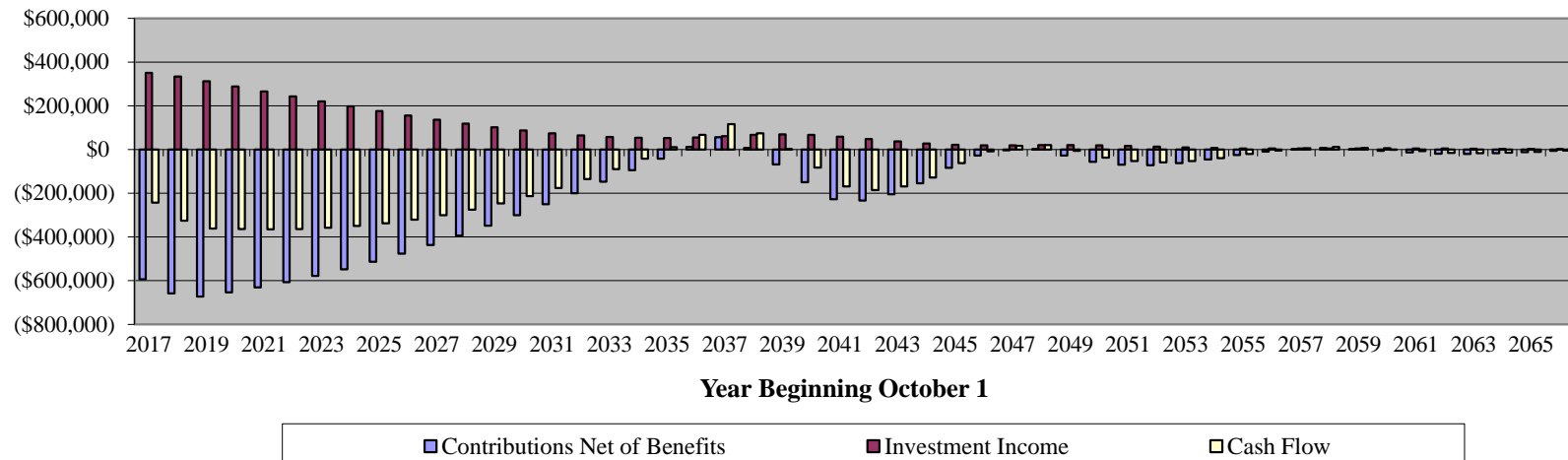
Mississippi Municipal Retirement Systems
City of Tupelo

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Vicksburg**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

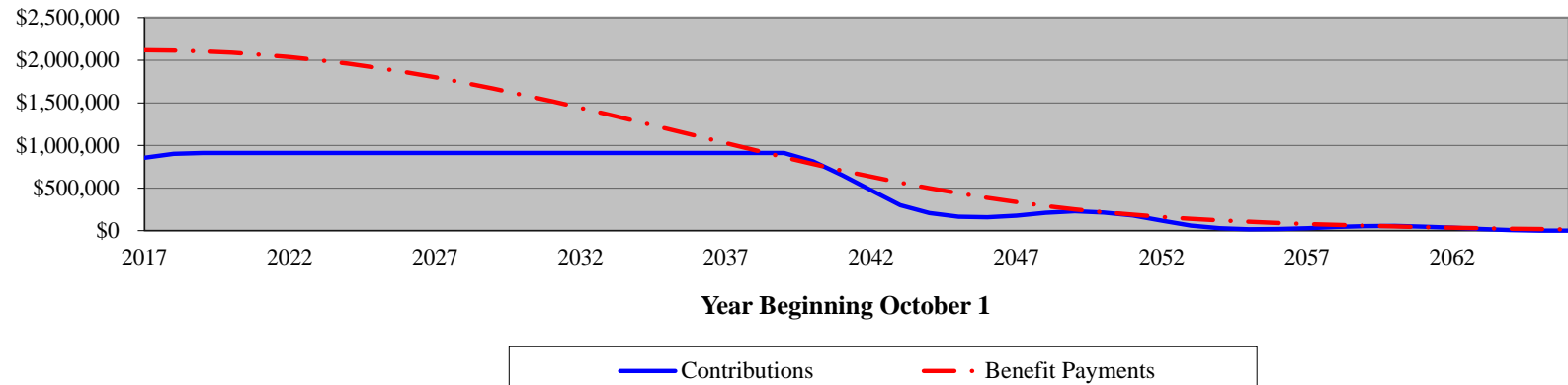
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$326,807,260	\$11,133,350	0.00279	\$855,769	\$2,118,214	\$683,284	(\$579,161)	\$10,554,189	2018
2018	326,807,260	10,554,189	0.00279	901,171	2,114,884	647,198	(566,515)	9,987,675	2019
2019	326,807,260	9,987,675	0.00279	911,792	2,105,170	611,025	(582,353)	9,405,321	2020
2020	326,807,260	9,405,321	0.00279	911,792	2,088,962	573,690	(603,480)	8,801,842	2021
2021	326,807,260	8,801,842	0.00279	911,792	2,066,176	535,193	(619,191)	8,182,651	2022
2022	326,807,260	8,182,651	0.00279	911,792	2,036,884	495,882	(629,210)	7,553,441	2023
2023	326,807,260	7,553,441	0.00279	911,792	2,001,195	456,125	(633,278)	6,920,163	2024
2024	326,807,260	6,920,163	0.00279	911,792	1,959,279	416,303	(631,184)	6,288,979	2025
2025	326,807,260	6,288,979	0.00279	911,792	1,911,391	376,808	(622,791)	5,666,188	2026
2026	326,807,260	5,666,188	0.00279	911,792	1,857,842	338,040	(608,010)	5,058,178	2027
2031	326,807,260	2,902,200	0.00279	911,792	1,519,684	169,198	(438,694)	2,463,506	2032
2036	326,807,260	1,288,046	0.00279	911,792	1,111,067	77,349	(121,926)	1,166,120	2037
2041	326,807,260	1,401,569	0.00216	653,107	706,482	89,395	36,020	1,437,589	2042
2046	326,807,260	738,868	0.00118	158,116	384,178	40,795	(185,267)	553,600	2047
2051	326,807,260	393,057	0.00057	180,379	187,214	25,330	18,495	411,552	2052
2056	326,807,260	189,815	0.00028	17,520	90,557	10,002	(63,035)	126,780	2057
2061	326,807,260	70,626	0.00013	47,869	41,622	4,790	11,037	81,663	2062
2066	326,807,260	56,292	0.00004	0	14,153	3,206	(10,947)	45,345	2067



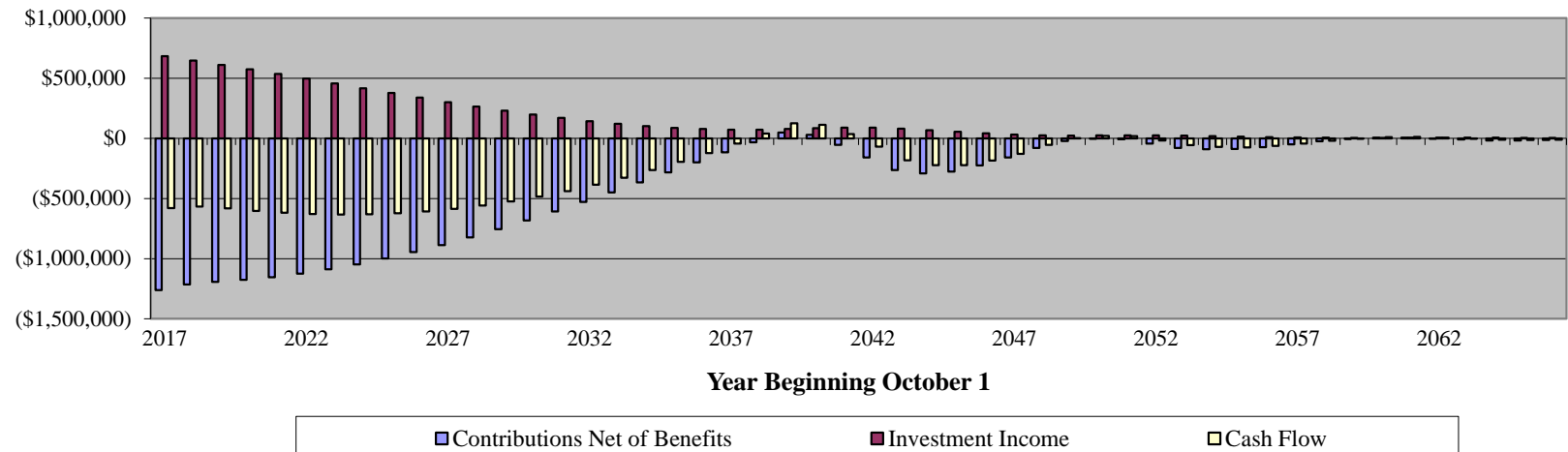
Mississippi Municipal Retirement Systems
City of Vicksburg

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**Mississippi Municipal Retirement Systems
City of Yazoo City**

**Cash Flow Projection (Based on Post-2011 Funding Policy)
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

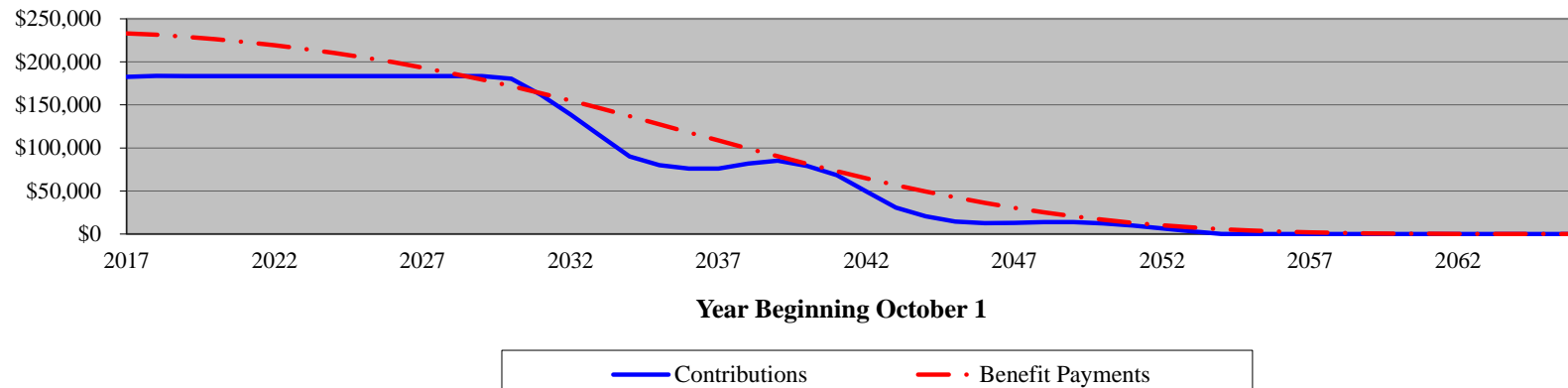
Year Beginning <u>July 1</u>	Value of Assessed Property	MVA Balance <u>July 1</u>	Millage Rate	<u>Contributions</u>	<u>Benefit Payments</u>	<u>Investment Income</u>	<u>Cash Flow</u>	MVA Balance <u>June 30</u>	Year Ending <u>June 30</u>
2017	\$49,956,737	\$389,580	0.00367	\$182,564	\$233,043	\$23,708	(\$26,771)	\$362,809	2018
2018	49,956,737	362,809	0.00367	183,716	231,615	22,050	(25,849)	336,959	2019
2019	49,956,737	336,959	0.00367	183,341	229,129	20,438	(25,350)	311,609	2020
2020	49,956,737	311,609	0.00367	183,341	226,267	18,881	(24,045)	287,564	2021
2021	49,956,737	287,564	0.00367	183,341	222,999	17,423	(22,235)	265,329	2022
2022	49,956,737	265,329	0.00367	183,341	219,291	16,096	(19,854)	245,475	2023
2023	49,956,737	245,475	0.00367	183,341	215,110	14,940	(16,829)	228,647	2024
2024	49,956,737	228,647	0.00367	183,341	210,437	13,995	(13,101)	215,546	2025
2025	49,956,737	215,546	0.00367	183,341	205,257	13,309	(8,607)	206,939	2026
2026	49,956,737	206,939	0.00367	183,341	199,567	12,932	(3,294)	203,645	2027
2031	49,956,737	258,891	0.00327	161,722	163,546	16,770	14,946	273,837	2032
2036	49,956,737	194,530	0.00236	76,123	118,078	11,302	(30,653)	163,878	2037
2041	49,956,737	141,493	0.00146	68,330	72,865	9,052	4,517	146,011	2042
2046	49,956,737	77,726	0.00073	12,564	36,323	4,292	(19,467)	58,260	2047
2051	49,956,737	28,006	0.00026	9,839	13,017	1,719	(1,459)	26,547	2052
2056	49,956,737	14,158	0.00006	0	2,844	829	(2,015)	12,143	2057
2061	49,956,737	10,255	0.00001	0	309	657	348	10,602	2062
2066	49,956,737	13,207	0.00000	0	15	858	843	14,050	2067



Mississippi Municipal Retirement Systems
City of Yazoo City

50 Year Cash Flow Projection
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values

