



**Cavanaugh Macdonald**  
CONSULTING, LLC

*The experience and dedication you deserve*

**PERS** Public Employees' Retirement  
System of Mississippi

## **Report on the Annual Valuation of the Mississippi Municipal Retirement Systems**

**Prepared as of  
June 30, 2013**





# Cavanaugh Macdonald

## CONSULTING, LLC

*The experience and dedication you deserve*

October 14, 2013

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). 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, 2014.

The date of the valuation was June 30, 2013, which is a change from last year's timing of the valuation. Due to the new Governmental Accounting Standards Board (GASB) Statements Nos. 67 and 68, we recommended that the valuation date change to match the measurement date, which for all PERS plans is June 30th of each year.

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. 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 7 and the comments on page 9. 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.

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 valuation was prepared in accordance with the principles of practice prescribed by the Actuarial Standards Board.

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. The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

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Board of Trustees  
October 14, 2013  
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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.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Thomas J. Cavanaugh'.

Thomas J. Cavanaugh, FSA, FCA, EA, MAAA  
Chief Executive Officer

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  
Senior Actuary

TJC/EJK:bdm



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**REPORT ON THE ANNUAL VALUATION OF THE  
MISSISSIPPI MUNICIPAL RETIREMENT SYSTEMS  
PREPARED AS OF JUNE 30, 2013**

**SECTION I – SUMMARY OF PRINCIPAL RESULTS**

1. This report, prepared as of June 30, 2013, 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, 2013.

**SUMMARY OF PRINCIPAL RESULTS**

VALUATION DATE	June 30, 2013	September 30, 2012
Active members included in valuation		
Number	16	21
Annual compensation	\$ 793,841	\$ 1,131,252
Retirees		
Number	1,941	1,978
Annual allowances	\$ 35,105,891	\$ 35,097,293
Assets		
Market related actuarial value	\$ 153,240,827	\$ 155,483,701
Market value	\$ 166,224,732	\$ 153,915,414
Unfunded employer liability	\$ 196,495,695	\$ 201,345,664

2. The valuation date was changed from September 30 to June 30 to match the valuation and measurement dates to prepare for the new GASB Statements Nos. 67 and 68.
3. Actuarial present values for each Municipality are shown in Section III.
4. Rates of contribution payable by employers are given in Section IV and comments on the valuation results are given in Section V.



5. There were no changes in benefit provisions since the last valuation.
6. The following changes to the actuarial assumptions were made since the last valuation.
  - The post-retirement mortality tables have been changed in accordance with the most recent experience study adopted by the Board in June 2013.
7. 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.
8. A new funding policy was adopted by the Board in February, 2011. In this new funding policy, contributions are extended past 2020 and an employer contribution rate, expressed as a millage rate tax applied to assessed property values, is established beginning in the 2011-2012 fiscal year 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 will be set equal to the fiscal year's projected benefit payments and adjusted as necessary to maintain the assets at the established reserve level. Schedule H of this report shows the projected cash flow of each municipality based on the new funding policy.
9. 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
2004	84	3,675	43,749	5.0	2,242	.04	32,182.4	875.7	393,901	235,198	158,703
2005	65	2,909	44,757	2.3	2,225	.03	34,607.9	1,189.7	388,438	217,140	171,298
2006	49	2,223	45,369	1.4	2,200	.02	35,188.1	1,582.9	384,220	213,553	170,667
2007	42	1,953	46,491	2.5	2,167	.02	35,555.2	1,820.5	380,337	213,432	166,905
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

\* All amounts prior to 2005 reported by prior actuarial firm.

\*\* Excluding COLA for years prior to 2005.

\*\*\* 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, 2013 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

### **Active Members**

Employers	Number	Payroll	Group Averages		
			Salary	Age*	Service*
Biloxi	0	\$0	\$0	0.0	0.0
Clarksdale	1	44,623	44,623	61.4	39.0
Clinton	5	262,015	52,403	53.6	30.5
Columbus	1	65,789	65,789	63.3	39.2
Greenville	0	0	0	0.0	0.0
Greenwood	2	81,406	40,703	64.7	39.4
Gulfport	0	0	0	0.0	0.0
Hattiesburg	2	94,300	47,150	56.4	31.8
Jackson	1	40,532	40,532	64.9	38.3
Laurel	0	0	0	0.0	0.0
McComb	0	0	0	0.0	0.0
Meridian	2	120,694	60,347	71.7	47.1
Natchez	1	37,059	37,059	62.8	37.5
Pascagoula	1	47,423	47,423	64.7	38.3
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
<b>Total in MRS</b>	<b>16</b>	<b>\$793,841</b>	<b>\$49,615</b>	<b>60.7</b>	<b>36.3</b>

\*Years

### **Retired Lives**

Employers	Retirement	Disability	Survivor	Total	Annual Benefit
Biloxi	62	8	52	122	\$2,324,810
Clarksdale	34	2	20	56	643,463
Clinton	25	0	4	29	711,621
Columbus	54	3	27	84	1,216,655
Greenville	51	0	32	83	1,027,669
Greenwood	38	3	22	63	814,260
Gulfport	56	9	31	96	1,967,913
Hattiesburg	111	6	34	151	3,323,678
Jackson	428	10	192	630	12,871,426
Laurel	65	3	25	93	1,158,012
McComb	15	4	12	31	388,611
Meridian	132	8	57	197	2,741,499
Natchez	30	4	23	57	788,519
Pascagoula	56	5	17	78	1,447,317
Tupelo	55	2	24	81	1,336,335
Vicksburg	36	4	33	73	2,089,187
Yazoo City	12	0	5	17	254,916
<b>Total in MRS</b>	<b>1,260</b>	<b>71</b>	<b>610</b>	<b>1,941</b>	<b>\$35,105,891</b>



### **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, 2013. 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, 2013**

Actuarial Present Value, June 30, 2013							
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	\$24,136,582	\$24,136,582	\$0	\$24,136,582	\$9,215,511	\$14,921,071
Clarksdale	299,239	6,034,378	6,333,617	12,496	6,321,121	1,502,494	4,818,627
Clinton	2,210,120	8,018,084	10,228,204	56,886	10,171,318	7,504,804	2,666,514
Columbus	518,029	11,192,466	11,710,495	11,612	11,698,883	1,319,999	10,378,884
Greenville	0	9,894,870	9,894,870	0	9,894,870	3,375,463	6,519,407
Greenwood	566,421	7,784,414	8,350,835	7,032	8,343,803	2,921,810	5,421,993
Gulfport	0	20,835,623	20,835,623	0	20,835,623	9,382,663	11,452,960
Hattiesburg	782,958	36,374,506	37,157,464	23,346	37,134,118	19,968,489	17,165,629
Jackson	331,937	121,170,732	121,502,669	0	121,502,669	58,743,067	62,759,602
Laurel	0	11,515,173	11,515,173	0	11,515,173	3,398,291	8,116,882
McComb	0	3,763,304	3,763,304	0	3,763,304	960,288	2,803,016
Meridian	744,890	25,337,900	26,082,790	0	26,082,790	8,840,851	17,241,939
Natchez	253,415	7,683,607	7,937,022	6,541	7,930,481	2,379,218	5,551,263
Pascagoula	377,007	13,174,517	13,551,524	0	13,551,524	7,118,749	6,432,775
Tupelo	0	13,055,950	13,055,950	0	13,055,950	5,549,972	7,505,978
Vicksburg	0	21,363,670	21,363,670	0	21,363,670	10,524,466	10,839,204
Yazoo City	0	2,434,643	2,434,643	0	2,434,643	534,692	1,899,951
Total in MRS	\$6,084,016	\$343,770,419	\$349,854,435	\$117,913	\$349,736,522	\$153,240,827	\$196,495,695



## SECTION IV – COMPUTED EMPLOYER CONTRIBUTION RATES

### Mississippi Municipal Retirement Systems Computed Employer Contribution Rates^ June 30, 2013

Municipality	Members Contributions*	Certified Last Year	Computed Rates for 2014-2015 Fiscal Year			
			Pre-2011 Funding Policy Rate^^	Post-2011 Funding Policy Rate	Certified This Year	Value of Assessed Property#
Biloxi	9.00%	2.50	5.47	2.43	2.43	\$536,423,314
Clarksdale	10.00	6.16	11.19	5.15	5.15	82,157,872
Clinton	8.00	1.48	2.62	1.24	1.24	196,727,591
Columbus	10.00	5.87	10.67	5.67	5.67	188,229,301
Greenville	10.00	3.33	6.75	3.06	3.06	188,790,708
Greenwood	10.00	4.74	9.63	4.40	4.40	110,076,908
Gulfport	8.00	1.44	3.17	1.36	1.36	712,643,161
Hattiesburg	10.00	3.87	8.07	3.47	3.47	416,993,266
Jackson	10.00	5.00	10.18	4.48	4.48	1,201,065,685
Laurel	10.00	5.39	9.98	4.46	4.46	156,631,234
McComb	10.00	2.75	6.00	2.76	2.76	92,659,996
Meridian**	10.00	5.39	10.46	4.66	4.66	315,367,985
Natchez	10.00	4.03	8.12	3.58	3.58	131,817,912
Pascagoula	10.00	2.65	4.96	2.16	2.16	246,977,314
Tupelo	7.00	1.68	3.43	1.53	1.53	428,424,384
Vicksburg	10.00	3.46	6.83	2.96	2.96	306,562,861
Yazoo City	10.00	4.02	8.17	3.91	3.91	45,329,561

\* % of Active Member Payroll

\*\* Meridian General Employees' contribution rate is 7.00%

^ Millage rates applied to assessed property

^^ 7 year amortization

# This is the value of taxable property adjusted to reflect all property-related contributions.

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



Since, under the prior funding policy, the millage rates are developed assuming 2% 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. The trend in assessed values is also important under the new funding policy as declines in values will put upward pressure on millage rates.

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

Municipality	2008	2009	2010	2011	2012	Average % Increase
Biloxi	\$577,849,308	\$571,430,139	\$559,074,350	\$535,701,881	\$536,423,314	(1.8)%
Clarksdale	82,197,541	82,341,759	79,843,165	82,426,519	82,157,872	0.0
Clinton	198,044,105	195,998,835	190,295,542	189,540,517	196,727,591	(0.2)
Columbus	194,377,153	197,429,681	189,758,903	188,555,406	188,229,301	(0.8)
Greenville	185,200,364	199,102,309	186,244,918	187,948,497	188,790,708	0.5
Greenwood	103,617,755	110,705,308	107,470,679	108,478,499	110,076,908	1.5
Gulfport	676,613,177	692,445,751	714,107,871	723,157,372	712,643,161	1.3
Hattiesburg	373,529,402	419,964,225	420,131,692	404,544,340	416,993,266	2.8
Jackson	1,199,789,082	1,192,518,712	1,178,470,596	1,197,937,482	1,201,065,685	0.0
Laurel	157,523,646	159,090,036	156,784,022	165,834,244	156,631,234	(0.1)
McComb	95,838,561	98,066,834	96,120,588	94,736,120	92,659,996	(0.8)
Meridian	298,962,692	333,848,292	330,138,193	318,777,866	315,367,985	1.3
Natchez	111,614,507	122,923,066	126,255,702	115,314,119	131,817,912	4.2
Pascagoula	232,334,196	243,161,223	260,099,582	258,275,296	246,977,314	1.5
Tupelo	434,986,754	427,464,655	426,470,182	426,120,432	428,424,384	(0.4)
Vicksburg	308,537,130	313,486,815	314,435,776	309,792,887	306,562,861	(0.2)
Yazoo City	47,299,228	47,553,993	45,340,719	46,073,238	45,329,561	(1.1)



## **SECTION V – COMMENTS ON VALUATION**

1. Based on the new 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 the page 7, the certified millage rate calculated in last year's valuation for one of the municipalities (McComb) is less than the computed rate for the 2014-2015 fiscal year under the post-2011 funding policy. Therefore, McComb should increase their current millage rate to the certified millage rate for the 2014-2015 fiscal year.
  
2. As the analysis of experience on pages 32 and 33 shows, the loss attributable to investment income, on an actuarial basis, is quite sizeable due to the continued recognition of investment losses that occurred for the 2009 fiscal year. In addition, there was a small loss due to fewer retiree deaths than expected and there was a retiree pickup for the City of Biloxi that was the largest contributing factor for the loss shown in the Other category on page 33. However, there were gains due to smaller payroll increases than expected plus the assumption change in the post-retirement mortality table produced a gain in liabilities. Other decrements created smaller gains and losses, but overall the System had an actuarial loss for the year.
  
3. From 2011 to 2012, the value of assessed property decreased for nine of the seventeen municipalities. Under the new funding policy, the value of assessed property is assumed to remain level. In general, if the assessed value declined, it contributed to an increase in the millage rate. If the assessed value grew, it served as an offset to the actuarial loss due to investment return.



## **SECTION VI – SUPPLEMENTAL DISCLOSURE INFORMATION**

1. Statement Nos. 25 and 27 of the Governmental Accounting Standards Board (GASB) set forth certain items of information to be disclosed in the financial statements of the Systems and the employers. 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, 2013**

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	1,941
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	0
Inactive Participants	0
Active Participants	<u>16</u>
Total	1,957



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	\$24,136,582	\$24,136,582	\$9,215,511	\$14,921,071
Clarksdale	274,328	6,034,378	6,308,706	1,502,494	4,806,212
Clinton	2,071,244	8,018,084	10,089,328	7,504,804	2,584,524
Columbus	495,093	11,192,466	11,687,559	1,319,999	10,367,560
Greenville	0	9,894,870	9,894,870	3,375,463	6,519,407
Greenwood	552,275	7,784,414	8,336,689	2,921,810	5,414,879
Gulfport	0	20,835,623	20,835,623	9,382,663	11,452,960
Hattiesburg	730,938	36,374,506	37,105,444	19,968,489	17,136,955
Jackson	331,937	121,170,732	121,502,669	58,743,067	62,759,602
Laurel	0	11,515,173	11,515,173	3,398,291	8,116,882
McComb	0	3,763,304	3,763,304	960,288	2,803,016
Meridian	744,890	25,337,900	26,082,790	8,840,851	17,241,939
Natchez	240,281	7,683,607	7,923,888	2,379,218	5,544,670
Pascagoula	377,007	13,174,517	13,551,524	7,118,749	6,432,775
Tupelo	0	13,055,950	13,055,950	5,549,972	7,505,978
Vicksburg	0	21,363,670	21,363,670	10,524,466	10,839,204
Yazoo City	0	2,434,643	2,434,643	534,692	1,899,951
<b>Totals</b>	<b>\$5,817,993</b>	<b>\$343,770,419</b>	<b>\$349,588,412</b>	<b>\$153,240,827</b>	<b>\$196,347,585</b>

During the year ended June 30, 2013, the Systems experienced a net decrease of \$6,982,918 in the actuarial accrued liability.



3. Another such item is the schedule of funding progress as shown below.

**SCHEDULE OF FUNDING PROGRESS**  
**(\$ Thousands)**

<b>Plan Year Ended</b>	<b>(1) Actuarial Value of Assets</b>	<b>(2) Actuarial Accrued Liability (AAL) Entry Age</b>	<b>(3) Percent Funded (1)/(2)</b>	<b>(4) Unfunded AAL (2) – (1)</b>	<b>(5) Annual Covered Payroll</b>	<b>(6) Unfunded AAL as a Percentage of Covered Payroll (4)/(5)</b>
09/30/04	\$235,198	\$393,061	59.8%	\$157,863	\$3,675	4,295.6%
09/30/05	217,140	387,386	56.1	170,246	2,909	5,852.4
09/30/06	213,553	383,355	55.7	169,802	2,223	7,638.4
09/30/07	213,432	379,584	56.2	166,152	1,953	8,507.5
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

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

Note: All amounts prior to 2005 reported by prior actuarial firm.



### History of Funding Progress

Municipality	Actuarial Value of Assets as Percentage of AAL									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Biloxi	36.17%	38.06%	42.27%	47.01%	50.93%	45.80%	45.13%	43.06%	39.41%	38.18%
Clarksdale	13.91	13.25	13.60	15.11	15.40	14.44	16.56	19.43	19.99	23.82
Clinton	92.32	89.94	89.99	90.69	92.34	86.80	80.83	79.26	75.02	74.38
Columbus	9.67	9.57	10.03	9.89	9.95	10.62	10.92	11.80	10.74	11.29
Greenville	47.79	42.78	42.46	42.73	44.25	40.58	39.28	36.89	34.25	34.11
Greenwood	30.90	29.41	30.70	33.77	36.46	34.24	33.94	36.63	34.72	35.05
Gulfport	46.08	44.46	46.36	49.15	50.66	48.14	46.52	49.00	46.37	45.03
Hattiesburg	68.03	65.49	65.44	67.34	68.39	62.14	59.03	57.32	54.17	53.82
Jackson	82.85	76.12	73.56	72.41	70.38	59.47	53.94	51.61	48.80	48.35
Laurel	25.22	22.64	23.57	26.30	28.86	26.77	26.79	27.31	26.79	29.51
McComb	42.79	39.64	39.44	40.34	37.07	32.66	29.72	32.26	27.48	25.52
Meridian	33.80	31.11	31.05	31.86	32.36	31.08	30.92	31.34	31.22	33.90
Natchez	18.23	19.15	21.67	24.52	27.83	26.33	27.06	28.24	28.55	30.03
Pascagoula	60.54	56.80	58.04	57.75	58.67	54.36	53.87	53.47	50.75	52.53
Tupelo	65.08	58.86	58.13	59.64	61.21	55.33	48.91	45.59	42.81	42.51
Vicksburg	70.20	68.44	67.01	63.26	67.51	57.85	53.87	52.28	47.83	49.26
Yazoo City	33.10	30.42	29.98	28.62	27.85	28.91	25.65	21.98	22.32	21.96

Note: All amounts prior to 2005 reported by prior actuarial firm.



### History of Funding Progress

Municipality	Unfunded Actuarial Accrued Liability as a Percentage of Payroll									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Biloxi	5,413.36%	5,709.27%	9,039.33%	11,030.00%	8,832.26%	10,973.44%	10,266.41%	11,063.20%	19,963.01%	N/A
Clarksdale	17,833.33	17,007.50	16,560.00	15,607.32	15,126.83	15,704.88	13,639.53	12,467.44	12,162.79	10,770.71%
Clinton	104.90	182.77	280.12	298.34	241.37	417.52	599.06	639.13	758.97	986.40
Columbus	11,963.21	24,069.23	24,140.00	22,168.52	21,715.09	20,969.09	20,494.55	17,140.63	16,083.58	15,758.80
Greenville	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Greenwood	4,002.84	3,844.62	6,345.87	5,841.67	5,209.09	5,429.46	5,367.57	7,054.55	6,927.50	6,651.70
Gulfport	5,466.09	6,162.80	9,374.62	8,110.07	7,019.87	7,133.33	7,209.70	6,559.76	12,753.41	N/A
Hattiesburg	1,494.96	1,826.91	2,533.14	2,781.22	4,084.43	4,814.94	6,110.38	7,778.10	11,110.90	18,172.80
Jackson	3,627.23	9,531.64	11,477.43	16,846.85	17,669.86	28,242.41	64,956.99	62,297.98	151,185.71	154,839.64
Laurel	23,388.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
McComb	4,780.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Meridian	9,466.04	9,129.20	11,553.98	10,540.43	12,080.38	12,031.71	11,550.00	11,062.72	10,638.01	14,285.66
Natchez	4,065.19	3,910.44	3,598.39	3,263.78	4,005.48	18,177.14	17,345.71	16,817.14	16,442.86	14,961.74
Pascagoula	4,172.08	4,367.52	3,788.30	6,330.78	10,610.17	14,785.11	14,182.98	13,479.59	14,578.72	13,564.67
Tupelo	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vicksburg	12,247.83	13,221.74	14,791.30	17,651.06	14,073.47	19,368.00	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

Note: All amounts prior to 2005 reported by prior actuarial firm.



4. The annual required contributions (ARC) of the employers as a dollar amount, determined in accordance with the parameters of GASB 25/27, are shown below.

**2013/2014 FISCAL YEAR  
ANNUAL REQUIRED CONTRIBUTION (ARC)  
BASED ON THE VALUATION AS OF JUNE 30, 2013**

ANNUAL REQUIRED CONTRIBUTION (ARC)	
Normal	\$ 64,614
Accrued liability	<u>19,279,222</u>
Total	\$19,343,836

5. Additional information as of June 30, 2013 follows.

Valuation date	6/30/13
Actuarial cost method	Entry age
Amortization method	Level dollar closed
Remaining amortization period	21 years
Asset valuation method	5-year smoothed market
Actuarial assumptions:	
Investment rate of return*	8.00%
Projected salary increases <sup>#</sup>	4.50% - 6.00%
*Includes price inflation at	3.50%
<sup>#</sup> Includes wage inflation at	4.25%
Cost of living adjustments	2.00% - 3.75% depending upon municipality



### Schedule of Employer Contributions

Fiscal Year 10/1-9/30	Valuation date	Annual Required Contribution	Percentage Contributed
2004-05	9/30/2004	\$14,090,896	100.6%
2005-06	9/30/2005	15,397,375	101.5
2006-07	9/30/2006	15,425,924	97.1
2007-08	9/30/2007	15,218,583	106.0
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	N/A
2013-14	6/30/2013	19,343,836	N/A

Note: All amounts prior to 2005 reported by prior actuarial firm.

### Contributions Required and Contributions Made

Municipality	Annual Required Contribution	Actual 2011 – 2012 Contribution	Percentage Contributed
Biloxi	\$1,329,064	\$1,326,576	99.8%
Clarksdale	512,888	682,662	133.1
Clinton	239,636	273,003	113.9
Columbus	1,047,502	1,095,795	104.6
Greenville	629,414	712,031	113.1
Greenwood	523,849	634,928	121.2
Gulfport	1,038,404	1,275,441	122.8
Hattiesburg	1,579,521	1,923,732	121.8
Jackson	5,857,435	7,967,824	136.0
Laurel	878,580	1,109,994	126.3
McComb	225,756	312,477	138.4
Meridian	1,790,112	2,538,402	141.8
Natchez	562,458	800,509	142.3
Pascagoula	631,694	969,569	153.5
Tupelo	719,433	815,000	113.3
Vicksburg	988,747	1,152,378	116.5
Yazoo City	196,651	232,812	118.4
Total	\$18,751,144	\$23,823,133	127.0%



**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)
9/30/04	\$5,190	\$365,243	\$22,628	\$235,198	100%	63.0%	0.0%
9/30/05	4,138	367,345	15,903	217,140	100	58.0	0.0
9/30/06	3,353	368,128	11,874	213,553	100	57.1	0.0
9/30/07	3,015	366,139	10,430	213,432	100	57.5	0.0
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

Note: All amounts prior to 2005 reported by prior actuarial firm.



### Schedule of Active Member Valuation Data

Valuation Date	Number of Employers	Active Members			
		Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
9/30/04	17	84	\$3,674,877	\$43,749	5.0%
9/30/05	17	65	2,909,190	44,757	2.3
9/30/06	17	49	2,223,090	45,369	1.4
9/30/07	17	42	1,952,642	46,491	2.5
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)

Note: All amounts prior to 2005 reported by prior actuarial firm.

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

Item	Fiscal Year Ended September 30									
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Beginning of Year	2,246	2,242	2,225	2,200	2,167	2,123	2,090	2,056	2,016	1,978
Added	54	67	46	42	39	37	44	46	39	40
Removed	(58)	(84)	(71)	(75)	(83)	(70)	(78)	(86)	(77)	(77)
End of Year	2,242	2,225	2,200	2,167	2,123	2,090	2,056	2,016	1,978	1,941

Note: All amounts prior to 2005 reported by prior actuarial firm.



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

Year Ending	2008	2009	2010	2011	2012	2013
Beginning of Year	\$35,555,206	\$35,455,803	\$35,456,684	\$35,418,572	\$35,164,599	\$35,097,293
Added	538,293	549,390	676,051	792,381	690,172	896,085
Removed	(894,867)	(873,282)	(1,000,144)	(1,233,853)	(942,832)	(1,083,209)
Benefit increase due to annual COLA	257,171	324,773	285,981	187,499	185,354	195,722
Benefit increase due to plan amendments	0	0	0	0	0	0
End of Year	\$35,455,803	\$35,456,684	\$35,418,572	\$35,164,599	\$35,097,293	\$35,105,891



**SCHEDULE A**  
**Development of Actuarial Value of Assets**

	9/30/2012	6/30/2013	6/30/2014	6/30/2015	6/30/2016	6/30/2017
A. Actuarial Value Beginning of Year	\$167,603,976	\$155,483,701				
B. Market Value End of Year	153,915,414	166,224,732				
C. Market Value Beginning of Year	165,251,479	153,915,414				
D. Cash Flow						
D1. Contributions	23,937,207	20,095,719				
D2. Other Revenue	0	0				
D3. Benefit Payments	(35,340,875)	(27,268,803)				
D4. Administrative Expenses	(476,463)	(400,341)				
D5. Investment Expenses	0	0				
D6. Net	(11,880,131)	(7,573,425)				
E. Investment Income						
E1. Market Total: B.-C.-D6.	544,066	19,882,743				
E2. Assumed Rate	8.00%	8.00%				
E3. Amount for Immediate Recognition	12,744,913	9,007,722				
E4. Amount for Phased-In Recognition	(12,200,847)	10,875,021				
F. Phased-In Recognition of Investment Income						
F1. Current Year: 0.20*E4.	(2,440,169)	2,175,004	0	0	0	0
F2. First Prior Year	4,905,001	(2,440,169)	2,175,004	0	0	0
F3. Second Prior Year	1,794,388	4,905,001	(2,440,169)	2,175,004	0	0
F4. Third Prior Year	(10,111,395)	1,794,388	4,905,001	(2,440,169)	2,175,004	0
F5. Fourth Prior Year	<u>(7,132,882)</u>	<u>(10,111,395)</u>	<u>1,794,388</u>	<u>4,905,001</u>	<u>(2,440,169)</u>	<u>2,175,004</u>
F6. Total Recognized Investment Gain	(12,985,057)	(3,677,171)	6,434,224	4,639,836	(265,165)	2,175,004
G. Actuarial Value End of Year:						
A.+D6.+E3.+F6.	\$155,483,701	\$153,240,827				
H. Final Actuarial Value of Assets:	\$155,483,701	\$153,240,827				
I. Difference Between Market & Actuarial Values	(1,568,287)	12,983,905	6,549,681	1,909,845	2,175,010	6

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: 8.00% 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.

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: 4.25% for wage inflation plus the following chart.

Ages	Merit and Seniority Salary Increase
Under 43	1.75%
43 – 47	1.25
48 – 52	0.75
53 and Over	0.25

PRICE INFLATION: 3.50% per annum, compounded annually.

DEATH AFTER RETIREMENT: The mortality table, for post-retirement mortality, used in evaluating allowances to be paid is the RP-2000 Combined Mortality Table Projected with Scale AA to 2025 set forward two years for males. The RP-2000 Disabled Mortality Table (set back 3 years for males and set forward 2 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 7% greater than expected under the selected table.

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 value of assets was set equal to market value on September 30, 2006 and smoothing commenced in 2007. 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, 2013, 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:	\$300
Vicksburg:	\$1,415

## **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.

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%).

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

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, Vicksburg, and Yazoo City.

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

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

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.

**SCHEDULE D****DETAILED TABULATIONS OF THE DATA****Retirants & Beneficiaries as of June 30, 2013  
Tabulated by Year of Retirement**

<b>Year of Retirement</b>	<b>Number</b>	<b>Total Annual Benefits, excluding COLA</b>	<b>COLA</b>	<b>Total Annual Benefits</b>	<b>Average Monthly Benefit</b>
2013	6	280,957	0	280,957	3,902
2012	4	164,423	1,503	165,926	3,457
2011	1	25,791	0	25,791	2,149
2010	5	156,182	9,006	165,188	2,753
2009	3	79,418	3,660	83,078	2,308
2008	7	177,629	7,436	185,065	2,203
2007	9	267,877	31,448	299,325	2,772
2006	16	386,191	45,539	431,730	2,249
2005	31	778,727	119,125	897,852	2,414
2004	22	468,025	72,207	540,232	2,046
2003	33	866,767	148,978	1,015,745	2,565
2002	43	1,174,528	238,011	1,412,539	2,737
2001	26	743,161	131,268	874,429	2,803
2000	40	990,654	220,204	1,210,858	2,523
1999	39	917,070	181,446	1,098,516	2,347
1998	43	1,011,695	191,448	1,203,143	2,332
1997	54	1,143,120	191,006	1,334,126	2,059
1996	59	1,147,471	193,364	1,340,835	1,894
1995	109	1,875,538	277,097	2,152,635	1,646
1994	142	2,426,615	429,854	2,856,469	1,676
1993	101	1,693,791	309,130	2,002,921	1,653
1992	97	1,617,445	273,635	1,891,080	1,625
1991	82	1,378,694	218,772	1,597,466	1,623
1990	70	1,041,498	163,793	1,205,291	1,435
1989	54	732,795	164,448	897,243	1,385
1988	88	1,286,235	246,981	1,533,216	1,452
1987	55	677,902	130,758	808,660	1,225
1986	71	973,073	200,185	1,173,258	1,377
1985	57	738,224	133,922	872,146	1,275
1984	55	581,852	94,360	676,212	1,025
1983	47	463,733	71,122	534,855	948
1982	64	646,036	119,846	765,882	997
1981	53	453,363	76,318	529,681	833
1980	55	460,437	81,578	542,015	821
1979 & Prior	300	1,969,530	531,996	2,501,526	695
<b>Totals</b>	<b>1,941</b>	<b>29,796,447</b>	<b>5,309,444</b>	<b>35,105,891</b>	<b>\$1,507</b>



## Schedule of Retired Members by Type of Benefit

Benefits Payable June 30, 2013

Amount of Monthly Benefit	Number of Rets.	Ret. Type 1*	Ret. Type 2*	Ret. Type 3*
\$1 - \$300	26	1	2	23
301 - 600	137	30	5	102
601 - 900	329	136	33	160
901 - 1,200	345	222	17	106
1,201 - 1,500	258	187	9	62
1,501 - 1,800	243	198	1	44
1,801 - 2,100	162	138		24
2,101 - 2,400	204	148	4	52
2,401 - 2,700	73	55		18
Over 2,700	164	145		19
Totals	1,941	1,260	71	610

\*Type of Retirement

1 – Retirement for Age & Service

2 – Disability Retirement

3 – Survivor Payment



# **MISSISSIPPI MUNICIPAL RETIREMENT SYSTEMS**

## **Retirant and Beneficiary Information June 30, 2013 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					2	\$27,638	2	\$27,638
20 – 24					1	11,250	1	11,250
25 – 29								
30 – 34								
35 – 39								
40 – 44					2	30,569	2	30,569
45 – 49	2	\$49,265			1	24,554	3	73,819
50 – 54	25	624,831			8	126,849	33	751,680
55 – 59	65	1,734,228	2	\$23,783	26	508,782	93	2,266,793
60 – 64	255	5,941,981	17	227,258	46	869,702	318	7,038,941
65 – 69	281	6,052,365	11	129,567	87	1,347,099	379	7,529,031
70 – 74	222	4,541,118	19	194,139	109	1,690,116	350	6,425,373
75 – 79	210	3,845,797	9	114,301	114	1,627,173	333	5,587,271
80 – 84	125	1,893,687	6	63,448	112	1,385,770	243	3,342,905
85 – 89	65	906,163	4	34,294	70	686,770	139	1,627,227
90 – 94	10	108,563	2	16,442	28	226,993	40	351,998
95					1	6,402	1	6,402
96								
97					2	17,098	2	17,098
98								
99			1	10,696			1	10,696
100 & Over					1	7,200	1	7,200
Totals	1,260	\$25,697,998	71	\$813,928	610	\$8,593,965	1,941	\$35,105,891



# MISSISSIPPI MUNICIPAL RETIREMENT SYSTEMS

## Total Active Members as of June 30, 2013 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						4	1	5	\$257,495
55 – 59									
60 & Over							11	11	536,346
Totals						4	12	16	\$793,841

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

Age: 60.7 years  
Service: 36.3 years  
Annual Pay: \$49,615



## **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, 2013 is shown below.

		<b>\$ Thousands</b>
(1)	UEL* as of 9/30/12	\$201,345.7
(2)	Actual employer contributions**	19,616.7
(3)	Interest accrual: $\{[(1) \times .08] - [(2) \times .0392]\} \times 0.75$	11,504.0
(4)	Expected UEL before changes: (1) – (2) + (3)	193,233.0
(5)	Change due to plan amendments	0.0
(6)	Change due to new actuarial assumptions or methods	(758.8)
(7)	Expected UEL after changes: (4) + (5) + (6)	192,474.2
(8)	Actual UEL as of 6/30/13	196,495.7
(9)	Gain/(loss): (7) – (8)	(4,021.5)

\*Unfunded employer 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 6/30/13	\$ Gain (or Loss) For Year Ending 9/30/12
<b>Age &amp; Service Retirements.</b> If members retire at older ages, there is a gain. If younger ages, a loss.	\$ (60.3)	\$ 0.7
<b>Disability Retirements.</b> If disability claims are less than assumed, there is a gain. If more claims, a loss.	0.0	0.0
<b>Death-in Service Benefits.</b> If survivor claims are less than assumed, there is a gain. If more claims, there is a loss.	4.7	8.3
<b>Withdrawal From Employment.</b> If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	0.0	0.0
<b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	134.0	345.5
<b>Investment Income.</b> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(3,682.1)	(13,173.3)
<b>Death After Retirement.</b> If retirants live longer than assumed, there is a loss. If not as long, a gain.	(73.8)	(659.8)
<b>Other.</b> Miscellaneous gains and losses resulting from data adjustments, COLAs, etc.	<u>(344.0)</u>	<u>(71.9)</u>
<b>Gain (or Loss) During Year From Financial Experience</b>	<b>\$(4,021.5)</b>	<b>\$(13,550.5)</b>
<b>Non-Recurring Items.</b> Adjustments for plan amendments, assumption changes, or method changes.	<u>758.8</u>	<u>0.0</u>
<b>Composite Gain (or Loss) During Year</b>	<b>\$(3,262.7)</b>	<b>\$(13,550.5)</b>



## **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 NEW 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**

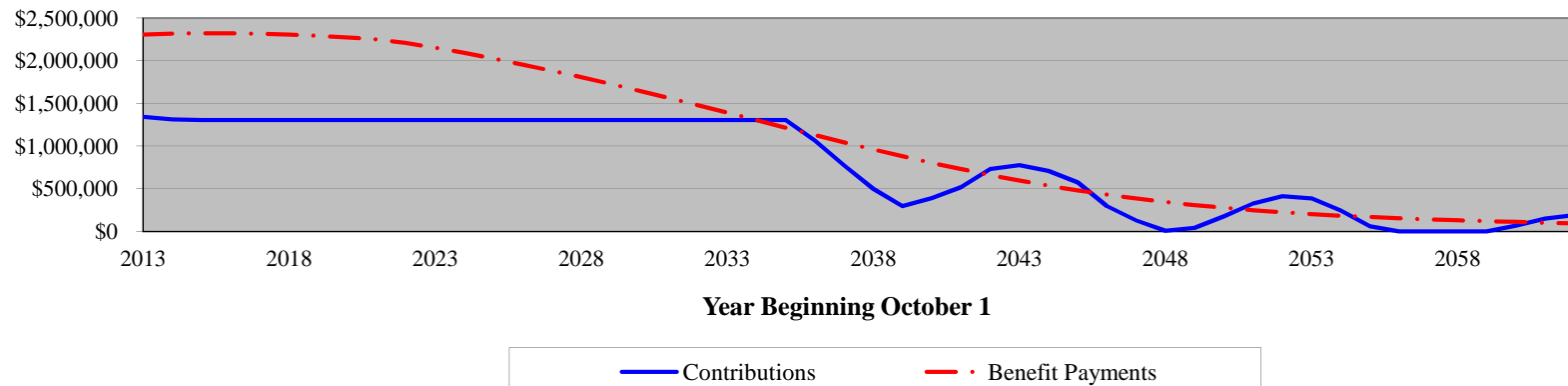
<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$536,423,314	\$9,996,330	0.00243	\$1,341,058	\$2,307,632	\$618,842	(\$347,732)	\$9,648,598	2014
2014	536,423,314	9,648,598	0.00243	1,312,896	2,317,492	595,023	(409,573)	9,239,025	2015
2015	536,423,314	9,239,025	0.00243	1,303,509	2,322,033	567,956	(450,568)	8,788,457	2016
2016	536,423,314	8,788,457	0.00243	1,303,509	2,321,478	538,687	(479,282)	8,309,175	2017
2017	536,423,314	8,309,175	0.00243	1,303,509	2,315,984	507,709	(504,766)	7,804,409	2018
2018	536,423,314	7,804,409	0.00243	1,303,509	2,305,824	475,224	(527,091)	7,277,318	2019
2019	536,423,314	7,277,318	0.00243	1,303,509	2,291,192	441,431	(546,252)	6,731,066	2020
2020	536,423,314	6,731,066	0.00243	1,303,509	2,272,248	406,531	(562,208)	6,168,858	2021
2021	536,423,314	6,168,858	0.00243	1,303,509	2,249,040	370,730	(574,801)	5,594,057	2022
2022	536,423,314	5,594,057	0.00243	1,303,509	2,209,184	334,643	(571,032)	5,023,025	2023
2027	536,423,314	3,013,267	0.00243	1,303,509	1,882,159	177,352	(401,298)	2,611,969	2028
2032	536,423,314	1,592,261	0.00243	1,303,509	1,477,942	97,917	(76,516)	1,515,745	2033
2037	536,423,314	1,870,480	0.00194	771,396	1,043,300	112,883	(159,021)	1,711,459	2038
2042	536,423,314	270,075	0.00123	730,082	661,439	19,751	88,394	358,469	2043
2047	536,423,314	850,096	0.00072	127,926	385,976	47,002	(211,048)	639,048	2048
2052	536,423,314	61,859	0.00042	413,239	224,156	10,069	199,152	261,011	2053
2057	536,423,314	359,930	0.00026	0	140,982	18,886	(122,096)	237,834	2058
2062	536,423,314	3,791	0.00018	192,230	96,088	3,322	99,464	103,255	2063



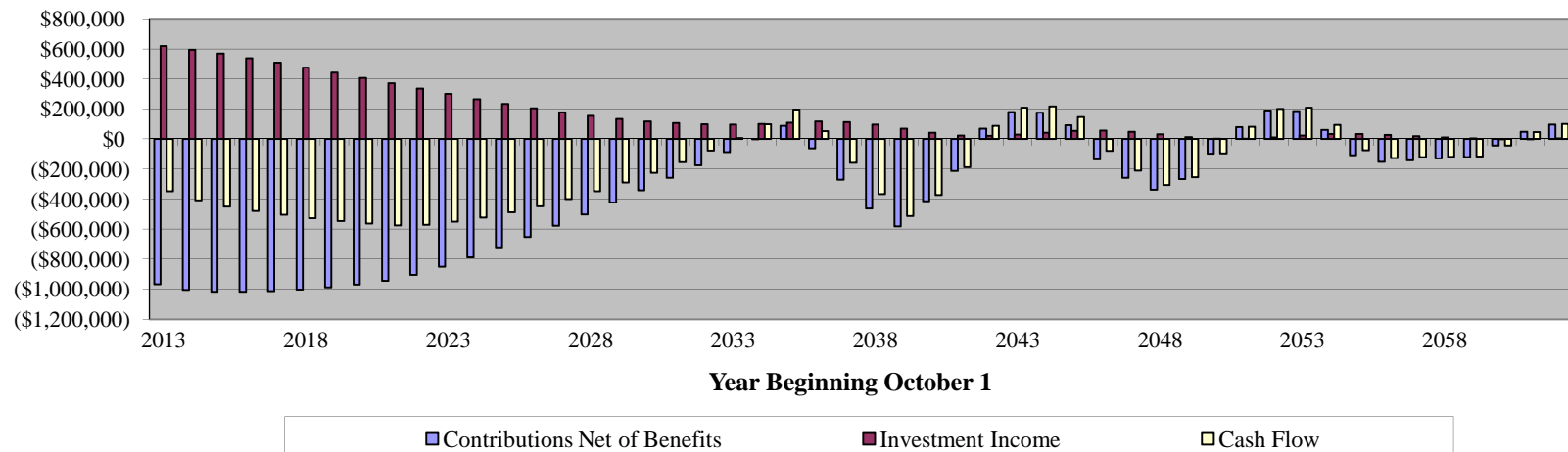
Mississippi Municipal Retirement Systems  
City of Biloxi

50 Year Cash Flow Projection  
Based on Valuation Assumptions

Projected Contributions and Benefits



Net Change in Asset Values





**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**

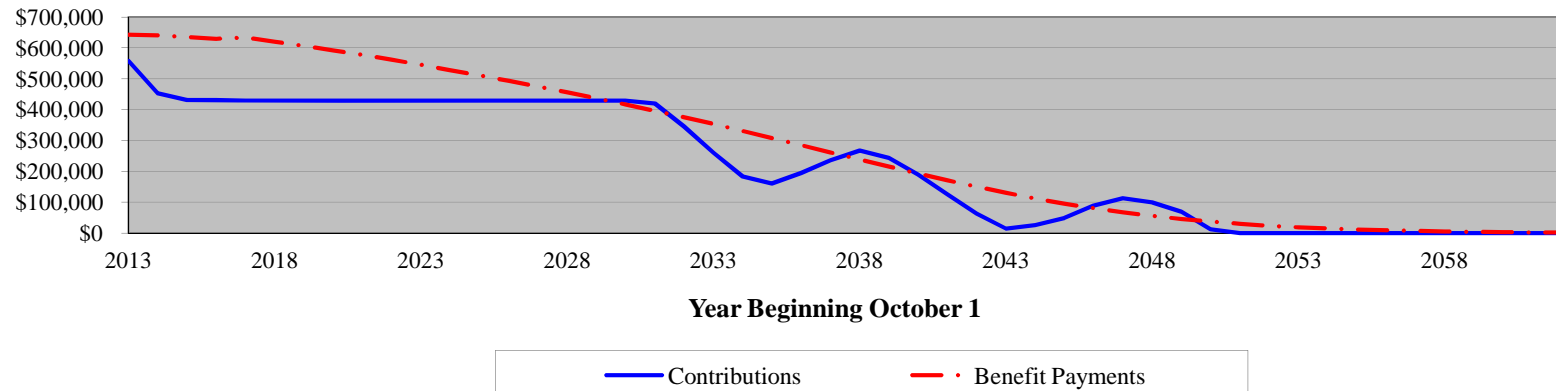
<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$83,285,999	\$1,629,798	0.00515	\$558,128	\$643,001	\$103,222	\$18,349	\$1,648,147	2014
2014	83,285,999	1,648,147	0.00515	453,003	640,396	101,135	(86,258)	1,561,889	2015
2015	83,285,999	1,561,889	0.00515	431,444	635,727	94,988	(109,295)	1,452,594	2016
2016	83,285,999	1,452,594	0.00515	431,004	629,146	88,080	(110,062)	1,342,532	2017
2017	83,285,999	1,342,532	0.00515	428,923	633,202	80,730	(123,549)	1,218,983	2018
2018	83,285,999	1,218,983	0.00515	428,923	620,571	73,103	(118,545)	1,100,438	2019
2019	83,285,999	1,100,438	0.00515	428,923	607,007	65,832	(112,252)	988,186	2020
2020	83,285,999	988,186	0.00515	428,923	592,572	58,997	(104,652)	883,534	2021
2021	83,285,999	883,534	0.00515	428,923	577,363	52,681	(95,759)	787,775	2022
2022	83,285,999	787,775	0.00515	428,923	561,511	46,964	(85,624)	702,151	2023
2027	83,285,999	486,118	0.00515	428,923	474,766	30,131	(15,712)	470,406	2028
2032	83,285,999	600,279	0.00450	344,894	374,867	38,059	8,086	608,365	2033
2037	83,285,999	238,911	0.00314	235,157	261,396	14,690	(11,549)	227,362	2038
2042	83,285,999	311,442	0.00180	62,623	149,953	17,450	(69,880)	241,562	2043
2047	83,285,999	21,200	0.00081	113,105	67,319	2,843	48,629	69,829	2048
2052	83,285,999	113,986	0.00029	0	23,767	6,649	(17,118)	96,868	2053
2057	83,285,999	62,256	0.00008	0	6,694	3,833	(2,861)	59,395	2058
2062	83,285,999	60,664	0.00002	0	1,443	3,897	2,454	63,118	2063



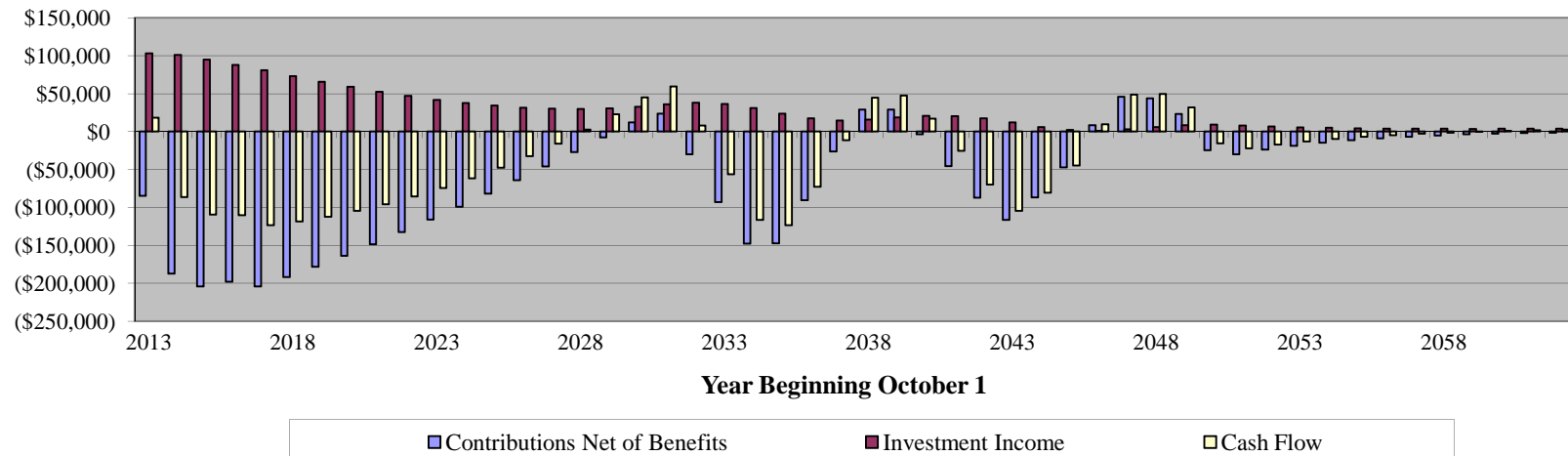
Mississippi Municipal Retirement Systems  
City of Clarksdale

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**

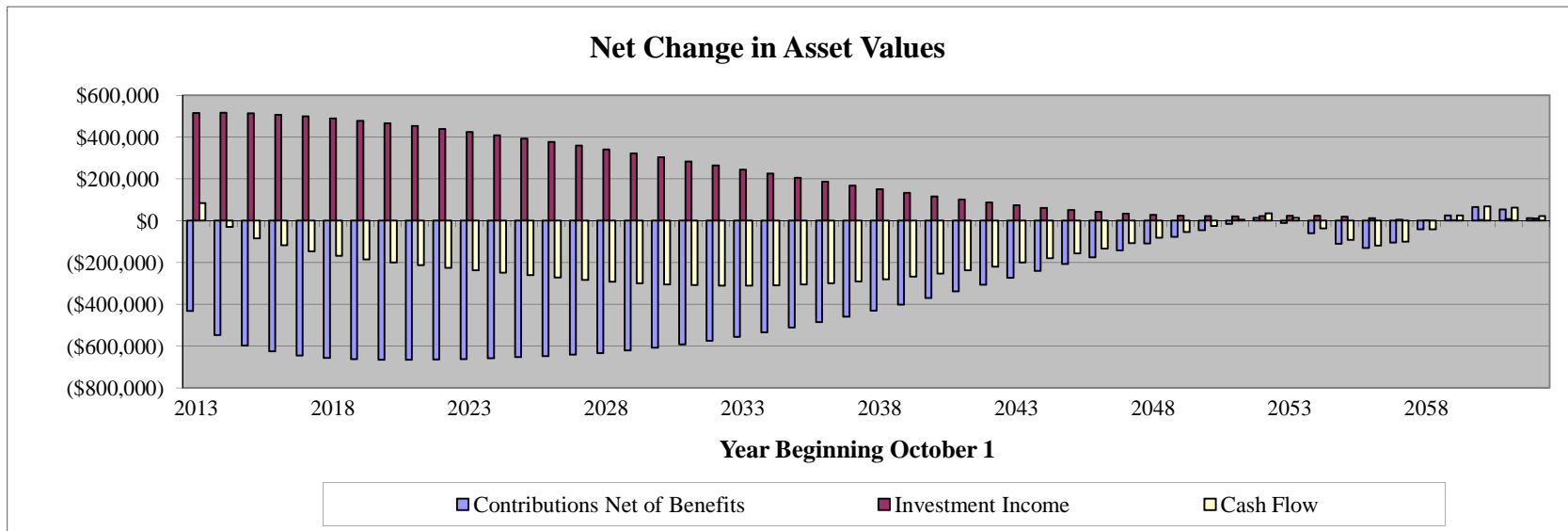
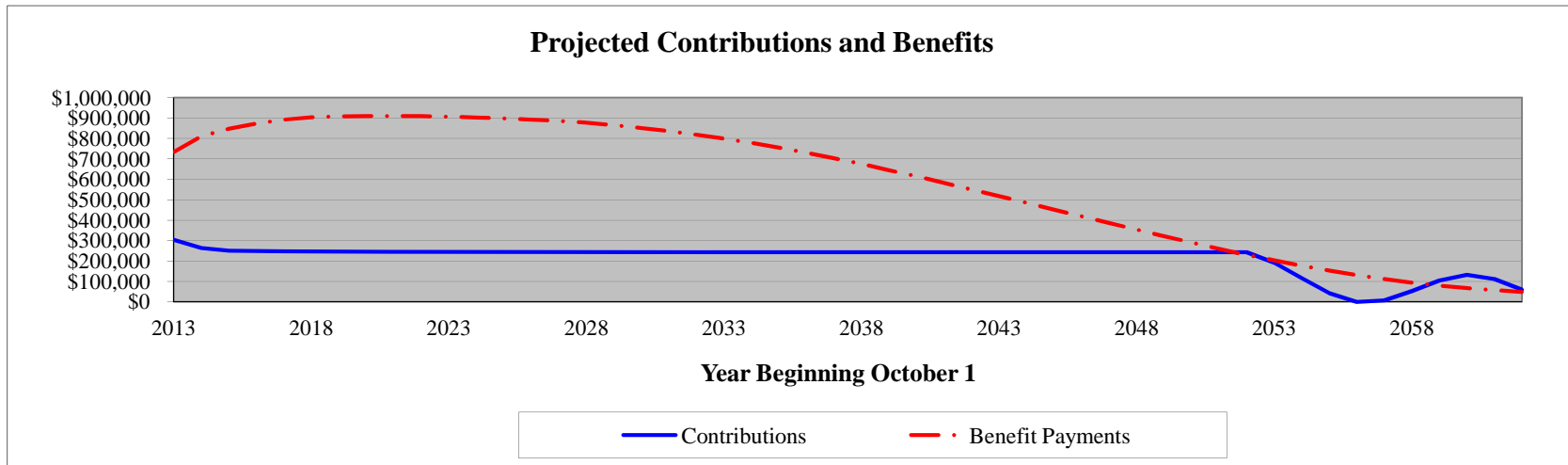
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$196,477,746	\$8,140,677	0.00124	\$302,891	\$734,222	\$515,346	\$84,015	\$8,224,692	2014
2014	196,477,746	8,224,692	0.00124	264,288	811,604	517,097	(30,219)	8,194,473	2015
2015	196,477,746	8,194,473	0.00124	249,907	847,666	513,519	(84,240)	8,110,233	2016
2016	196,477,746	8,110,233	0.00124	248,094	872,870	507,180	(117,596)	7,992,637	2017
2017	196,477,746	7,992,637	0.00124	246,831	891,903	498,887	(146,185)	7,846,452	2018
2018	196,477,746	7,846,452	0.00124	246,034	903,196	488,998	(168,164)	7,678,288	2019
2019	196,477,746	7,678,288	0.00124	245,623	908,346	477,889	(184,834)	7,493,454	2020
2020	196,477,746	7,493,454	0.00124	245,281	910,232	465,804	(199,147)	7,294,307	2021
2021	196,477,746	7,294,307	0.00124	244,998	910,500	452,842	(212,660)	7,081,647	2022
2022	196,477,746	7,081,647	0.00124	244,762	909,281	439,050	(225,469)	6,856,178	2023
2027	196,477,746	5,837,494	0.00124	243,828	885,520	358,910	(282,782)	5,554,712	2028
2032	196,477,746	4,350,307	0.00124	243,632	818,338	264,386	(310,320)	4,039,987	2033
2037	196,477,746	2,816,325	0.00124	243,632	702,850	168,371	(290,847)	2,525,478	2038
2042	196,477,746	1,485,272	0.00124	243,632	550,191	86,736	(219,823)	1,265,449	2043
2047	196,477,746	596,271	0.00124	243,632	385,520	34,219	(107,669)	488,602	2048
2052	196,477,746	334,259	0.00117	243,632	230,296	22,153	35,489	369,748	2053
2057	196,477,746	134,365	0.00057	6,286	111,608	5,365	(99,957)	34,408	2058
2062	196,477,746	149,388	0.00024	59,727	47,833	10,091	21,985	171,373	2063



Mississippi Municipal Retirement Systems  
City of Clinton

50 Year Cash Flow Projection  
Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems  
City of Columbus**

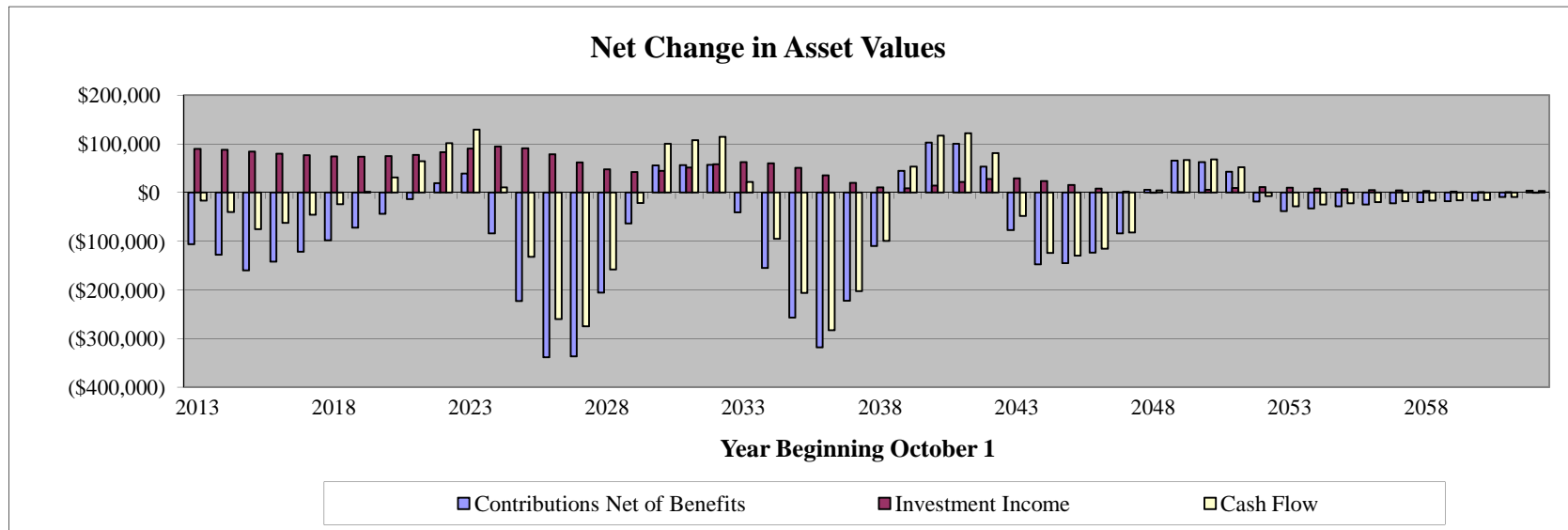
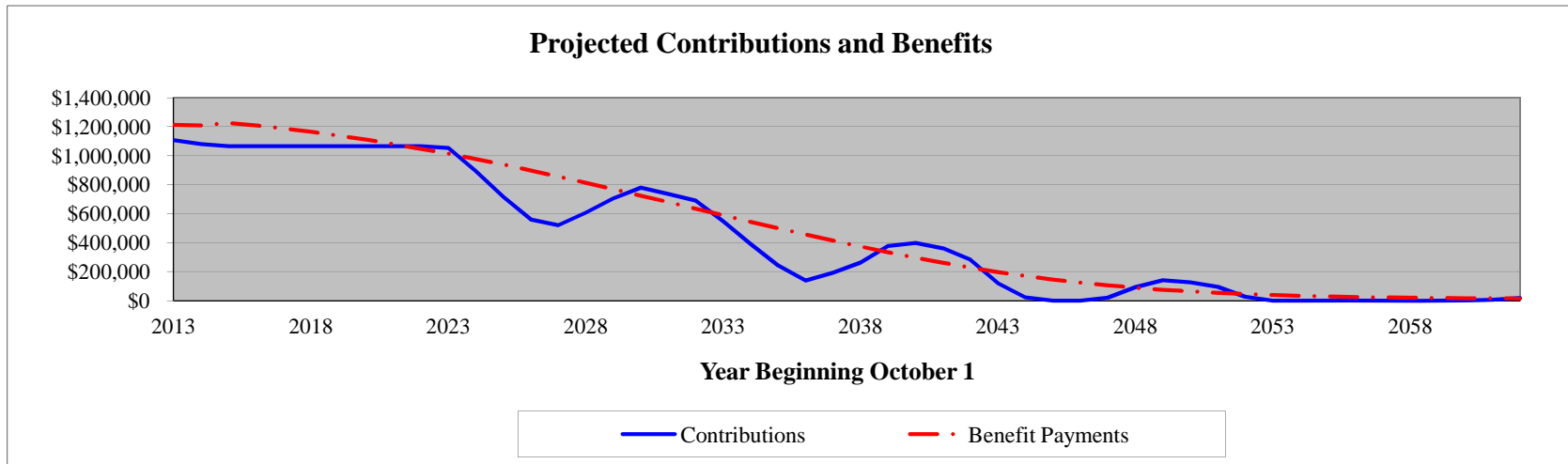
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$188,125,541	\$1,431,841	0.00567	\$1,107,532	\$1,214,133	\$89,660	(\$16,941)	\$1,414,900	2014
2014	188,125,541	1,414,900	0.00567	1,080,567	1,208,718	87,869	(40,282)	1,374,618	2015
2015	188,125,541	1,374,618	0.00567	1,066,672	1,226,544	84,236	(75,636)	1,298,982	2016
2016	188,125,541	1,298,982	0.00567	1,066,672	1,209,091	79,878	(62,541)	1,236,441	2017
2017	188,125,541	1,236,441	0.00567	1,066,672	1,188,626	76,468	(45,486)	1,190,955	2018
2018	188,125,541	1,190,955	0.00567	1,066,672	1,164,936	74,269	(23,995)	1,166,960	2019
2019	188,125,541	1,166,960	0.00567	1,066,672	1,138,793	73,545	1,424	1,168,384	2020
2020	188,125,541	1,168,384	0.00567	1,066,672	1,110,581	74,540	30,631	1,199,015	2021
2021	188,125,541	1,199,015	0.00567	1,066,672	1,080,256	77,501	63,917	1,262,932	2022
2022	188,125,541	1,262,932	0.00557	1,066,672	1,047,858	82,692	101,506	1,364,438	2023
2027	188,125,541	1,111,222	0.00455	519,439	856,125	61,459	(275,227)	835,995	2028
2032	188,125,541	863,438	0.00337	690,523	633,927	57,934	114,530	977,968	2033
2037	188,125,541	414,852	0.00220	191,655	413,980	19,854	(202,471)	212,381	2038
2042	188,125,541	404,140	0.00121	280,486	227,644	27,959	80,801	484,941	2043
2047	188,125,541	66,968	0.00056	20,717	104,721	1,666	(82,338)	(15,370)	2048
2052	188,125,541	175,523	0.00024	26,444	44,933	10,818	(7,671)	167,852	2053
2057	188,125,541	72,570	0.00012	0	22,122	4,009	(18,113)	54,457	2058
2062	188,125,541	(3,849)	0.00008	17,830	14,421	(141)	3,268	(581)	2063



Mississippi Municipal Retirement Systems  
City of Columbus

50 Year Cash Flow Projection  
Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems  
City of Greenville**

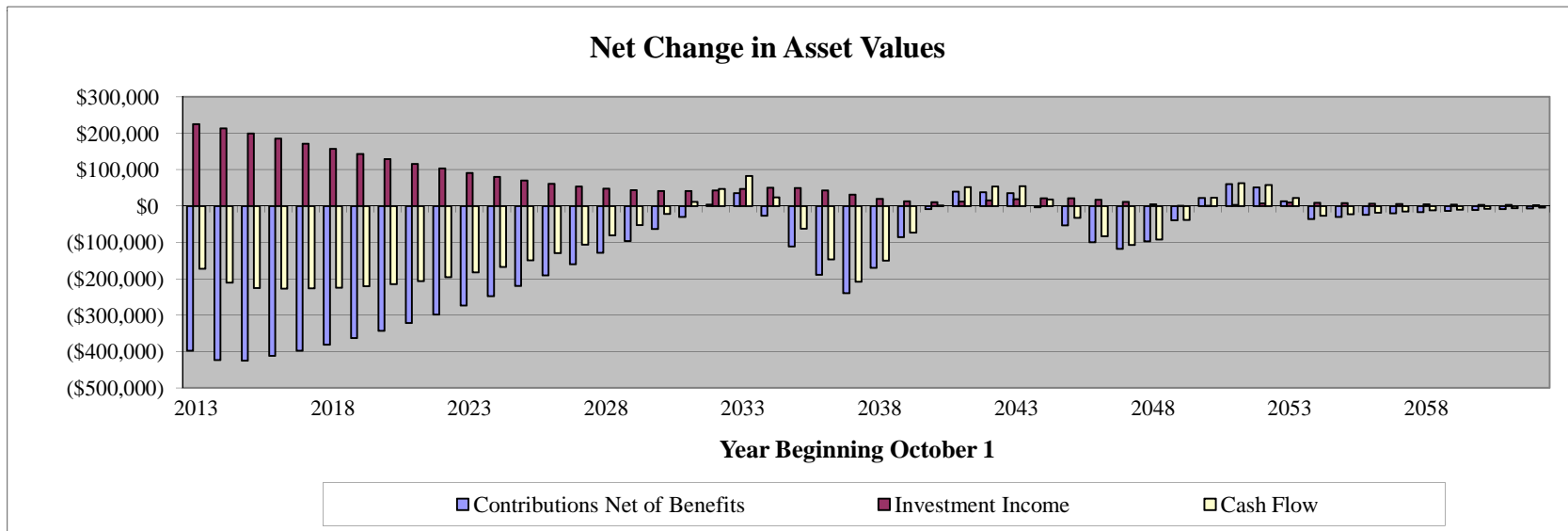
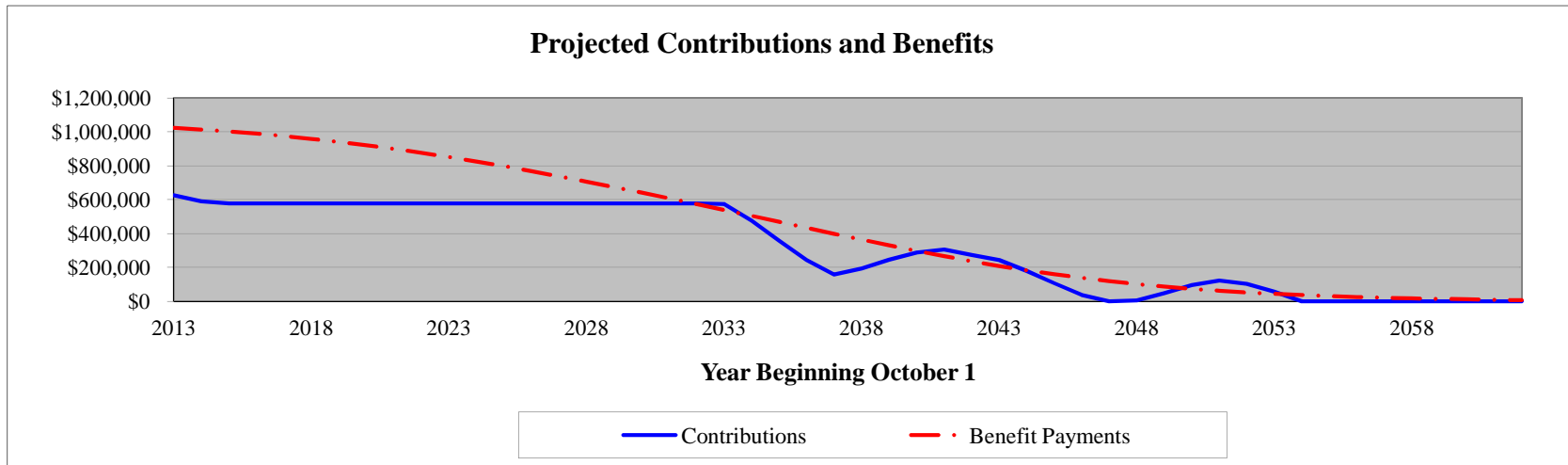
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$188,666,720	\$3,661,461	0.00306	\$626,004	\$1,023,521	\$225,279	(\$172,238)	\$3,489,223	2014
2014	188,666,720	3,489,223	0.00306	590,055	1,013,786	213,245	(210,486)	3,278,737	2015
2015	188,666,720	3,278,737	0.00306	577,320	1,002,527	199,516	(225,691)	3,053,046	2016
2016	188,666,720	3,053,046	0.00306	577,320	989,660	185,258	(227,082)	2,825,964	2017
2017	188,666,720	2,825,964	0.00306	577,320	975,112	170,963	(226,829)	2,599,135	2018
2018	188,666,720	2,599,135	0.00306	577,320	958,825	156,740	(224,765)	2,374,370	2019
2019	188,666,720	2,374,370	0.00306	577,320	940,757	142,708	(220,729)	2,153,641	2020
2020	188,666,720	2,153,641	0.00306	577,320	920,933	128,995	(214,618)	1,939,023	2021
2021	188,666,720	1,939,023	0.00306	577,320	899,404	115,734	(206,350)	1,732,673	2022
2022	188,666,720	1,732,673	0.00306	577,320	876,195	103,063	(195,812)	1,536,861	2023
2027	188,666,720	907,411	0.00306	577,320	737,504	53,858	(106,326)	801,085	2028
2032	188,666,720	655,982	0.00304	577,320	573,238	42,769	46,851	702,833	2033
2037	188,666,720	598,956	0.00211	158,537	398,432	31,258	(208,637)	390,319	2038
2042	188,666,720	220,816	0.00125	273,723	236,083	15,557	53,197	274,013	2043
2047	188,666,720	230,566	0.00063	0	118,090	11,209	(106,881)	123,685	2048
2052	188,666,720	78,401	0.00027	102,953	51,769	6,733	57,917	136,318	2053
2057	188,666,720	90,177	0.00011	0	20,343	5,211	(15,132)	75,045	2058
2062	188,666,720	38,748	0.00004	0	7,070	2,292	(4,778)	33,970	2063



Mississippi Municipal Retirement Systems  
City of Greenville

50 Year Cash Flow Projection  
Based on Valuation Assumptions





**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**

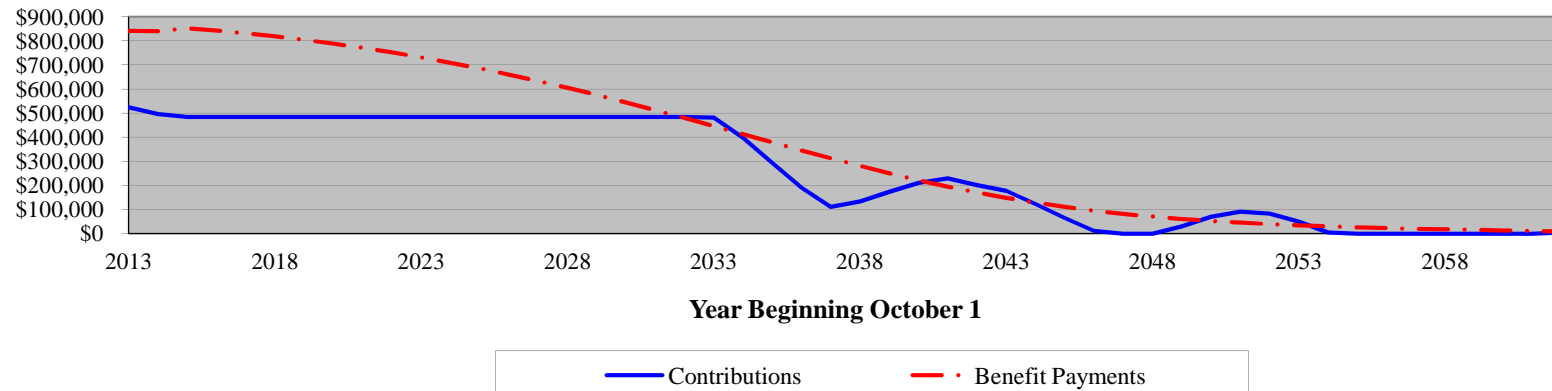
<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$110,034,074	\$3,169,371	0.00440	\$523,803	\$842,064	\$195,828	(\$122,433)	\$3,046,938	2014
2014	110,034,074	3,046,938	0.00440	496,221	840,498	187,038	(157,239)	2,889,699	2015
2015	110,034,074	2,889,699	0.00440	484,150	852,610	176,044	(192,416)	2,697,283	2016
2016	110,034,074	2,697,283	0.00440	484,150	842,743	163,853	(194,740)	2,502,543	2017
2017	110,034,074	2,502,543	0.00440	484,150	831,428	151,556	(195,722)	2,306,821	2018
2018	110,034,074	2,306,821	0.00440	484,150	818,655	139,243	(195,262)	2,111,559	2019
2019	110,034,074	2,111,559	0.00440	484,150	804,385	127,008	(193,227)	1,918,332	2020
2020	110,034,074	1,918,332	0.00440	484,150	788,552	114,954	(189,448)	1,728,884	2021
2021	110,034,074	1,728,884	0.00440	484,150	771,112	103,198	(183,764)	1,545,120	2022
2022	110,034,074	1,545,120	0.00440	484,150	752,069	91,863	(176,056)	1,369,064	2023
2027	110,034,074	786,705	0.00440	484,150	633,316	46,364	(102,802)	683,903	2028
2032	110,034,074	526,375	0.00436	484,150	479,800	34,354	38,704	565,079	2033
2037	110,034,074	500,506	0.00284	110,559	312,568	26,071	(175,938)	324,568	2038
2042	110,034,074	166,935	0.00155	201,893	170,737	11,847	43,003	209,938	2043
2047	110,034,074	161,350	0.00075	0	82,166	7,859	(74,307)	87,043	2048
2052	110,034,074	53,010	0.00036	83,555	39,650	4,850	48,755	101,765	2053
2057	110,034,074	68,724	0.00018	0	20,066	3,825	(16,241)	52,483	2058
2062	110,034,074	2,563	0.00008	4,467	9,214	15	(4,732)	(2,169)	2063



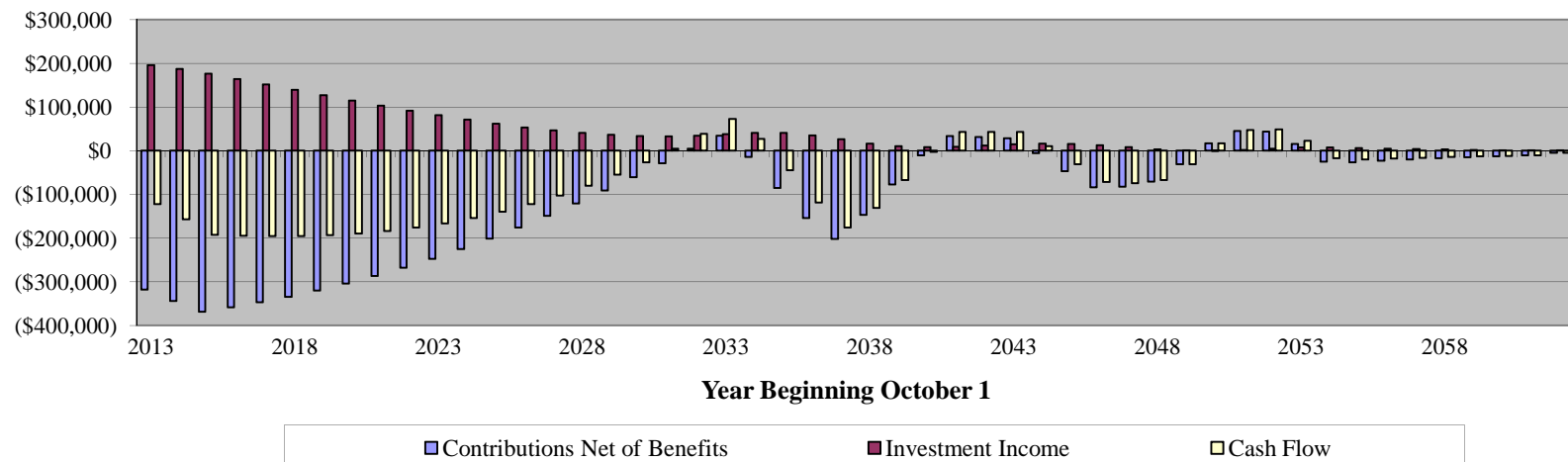
Mississippi Municipal Retirement Systems  
City of Greenwood

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**

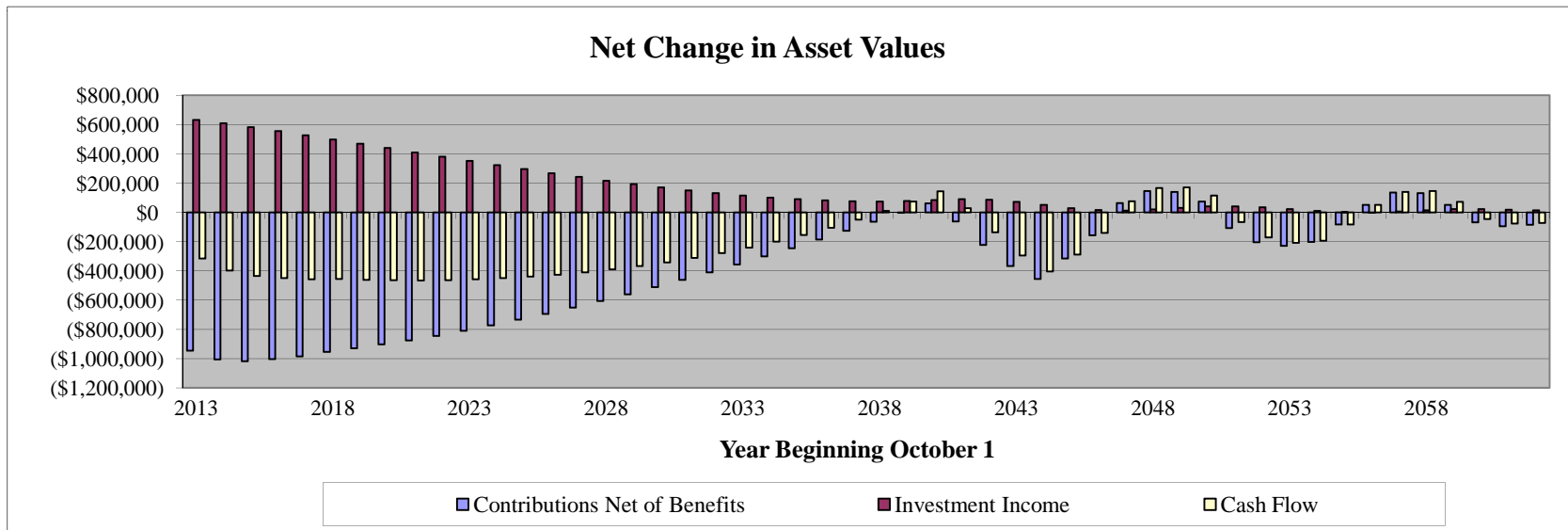
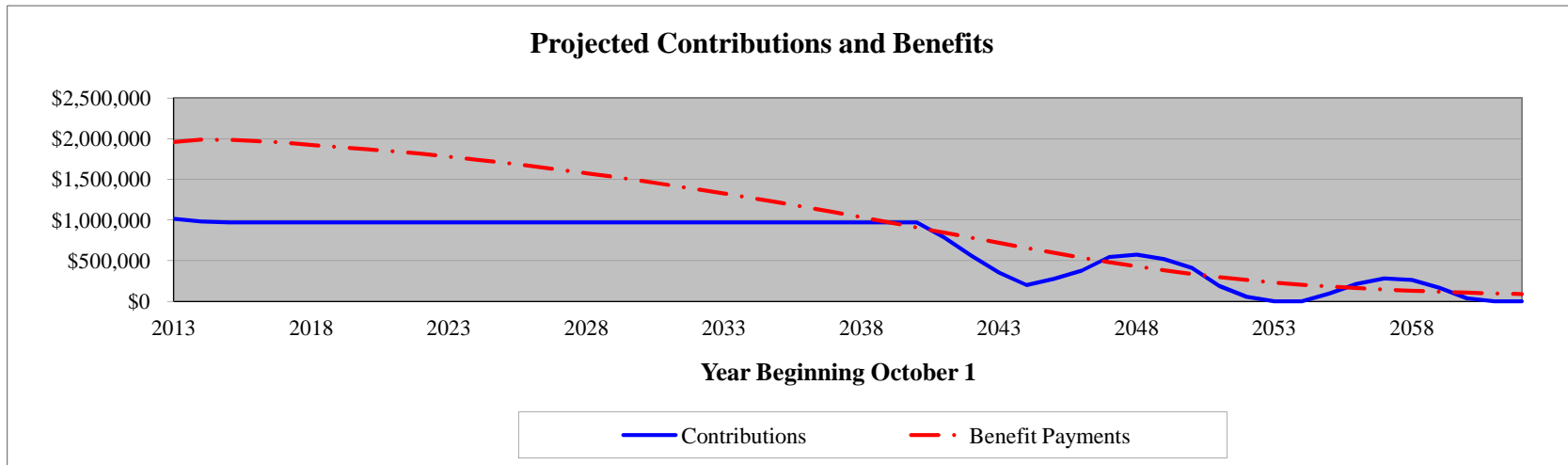
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments**

<b>Year Beginning <u>July 1</u></b>	<b>Value of Assessed Property</b>	<b>MVA Balance <u>July 1</u></b>	<b>Millage Rate</b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b>MVA Balance <u>June 30</u></b>	<b>Year Ending <u>June 30</u></b>
2013	\$711,662,757	\$10,177,645	0.00136	\$1,014,458	\$1,960,578	\$631,282	(\$314,838)	\$9,862,807	2014
2014	711,662,757	9,862,807	0.00136	982,095	1,988,336	608,894	(397,347)	9,465,460	2015
2015	711,662,757	9,465,460	0.00136	967,861	1,985,081	582,716	(434,504)	9,030,956	2016
2016	711,662,757	9,030,956	0.00136	967,861	1,971,635	554,903	(448,871)	8,582,085	2017
2017	711,662,757	8,582,085	0.00136	967,861	1,953,139	526,318	(458,960)	8,123,125	2018
2018	711,662,757	8,123,125	0.00136	967,861	1,921,870	497,486	(456,523)	7,666,602	2019
2019	711,662,757	7,666,602	0.00136	967,861	1,897,731	468,584	(461,286)	7,205,316	2020
2020	711,662,757	7,205,316	0.00136	967,861	1,871,629	439,435	(464,333)	6,740,983	2021
2021	711,662,757	6,740,983	0.00136	967,861	1,843,573	410,151	(465,561)	6,275,422	2022
2022	711,662,757	6,275,422	0.00136	967,861	1,813,669	380,846	(464,962)	5,810,460	2023
2027	711,662,757	4,035,167	0.00136	967,861	1,619,030	241,456	(409,713)	3,625,454	2028
2032	711,662,757	2,212,886	0.00136	967,861	1,378,089	130,715	(279,513)	1,933,373	2033
2037	711,662,757	1,227,789	0.00136	967,861	1,094,321	75,761	(50,699)	1,177,090	2038
2042	711,662,757	1,432,338	0.00110	556,964	780,463	85,953	(137,546)	1,294,792	2043
2047	711,662,757	164,020	0.00067	542,428	479,237	12,683	75,874	239,894	2048
2052	711,662,757	623,078	0.00037	55,548	260,510	33,944	(171,018)	452,060	2053
2057	711,662,757	17,096	0.00020	278,734	143,945	5,423	140,212	157,308	2058
2062	711,662,757	252,337	0.00012	0	86,128	13,647	(72,481)	179,856	2063



Mississippi Municipal Retirement Systems  
City of Gulfport

50 Year Cash Flow Projection  
Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems  
City of Hattiesburg**

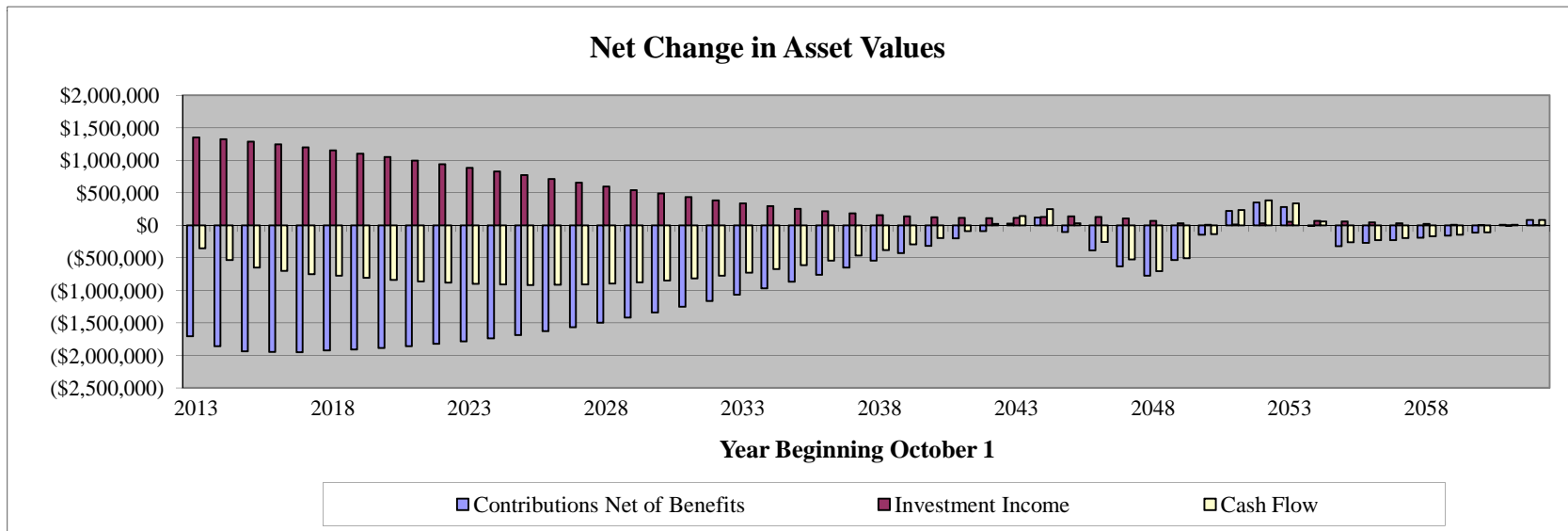
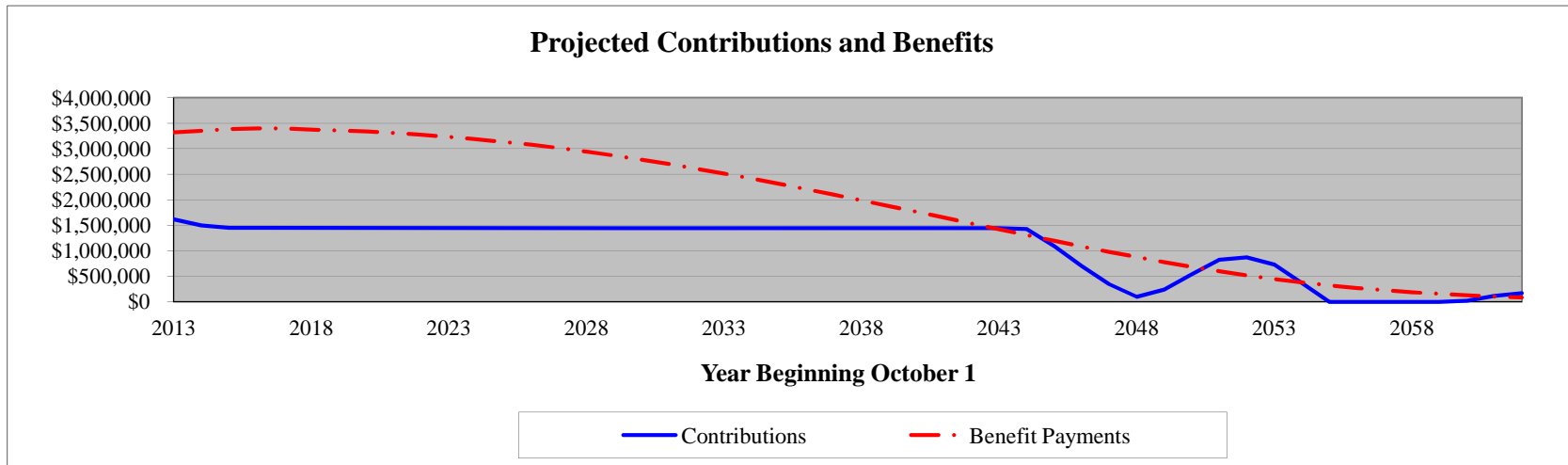
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$416,820,208	\$21,660,394	0.00347	\$1,616,003	\$3,322,986	\$1,353,322	(\$353,661)	\$21,306,733	2014
2014	416,820,208	21,306,733	0.00347	1,494,029	3,352,528	1,325,487	(533,012)	20,773,721	2015
2015	416,820,208	20,773,721	0.00347	1,448,180	3,384,512	1,288,352	(647,980)	20,125,741	2016
2016	416,820,208	20,125,741	0.00347	1,447,587	3,395,861	1,245,851	(702,423)	19,423,318	2017
2017	416,820,208	19,423,318	0.00347	1,447,188	3,399,145	1,200,076	(751,881)	18,671,437	2018
2018	416,820,208	18,671,437	0.00347	1,446,919	3,373,299	1,152,022	(774,358)	17,897,079	2019
2019	416,820,208	17,897,079	0.00347	1,446,825	3,358,430	1,102,161	(809,444)	17,087,635	2020
2020	416,820,208	17,087,635	0.00347	1,446,746	3,335,387	1,050,282	(838,359)	16,249,276	2021
2021	416,820,208	16,249,276	0.00347	1,446,681	3,306,541	996,709	(863,151)	15,386,125	2022
2022	416,820,208	15,386,125	0.00347	1,446,627	3,270,911	941,742	(882,542)	14,503,583	2023
2027	416,820,208	10,862,731	0.00347	1,446,467	3,011,834	656,004	(909,363)	9,953,368	2028
2032	416,820,208	6,511,180	0.00347	1,446,366	2,609,055	386,034	(776,655)	5,734,525	2033
2037	416,820,208	3,177,037	0.00347	1,446,366	2,098,203	185,656	(466,181)	2,710,856	2038
2042	416,820,208	1,754,430	0.00347	1,446,366	1,533,578	111,248	24,036	1,778,466	2043
2047	416,820,208	1,948,921	0.00235	344,666	977,833	106,426	(526,741)	1,422,180	2048
2052	416,820,208	308,939	0.00124	870,245	518,736	31,325	382,834	691,773	2053
2057	416,820,208	596,840	0.00054	0	226,792	31,540	(195,252)	401,588	2058
2062	416,820,208	(14,776)	0.00021	170,434	88,269	1,668	83,833	69,057	2063



Mississippi Municipal Retirement Systems  
City of Hattiesburg

50 Year Cash Flow Projection  
Based on Valuation Assumptions



**Mississippi Municipal Retirement Systems  
City of Jackson**



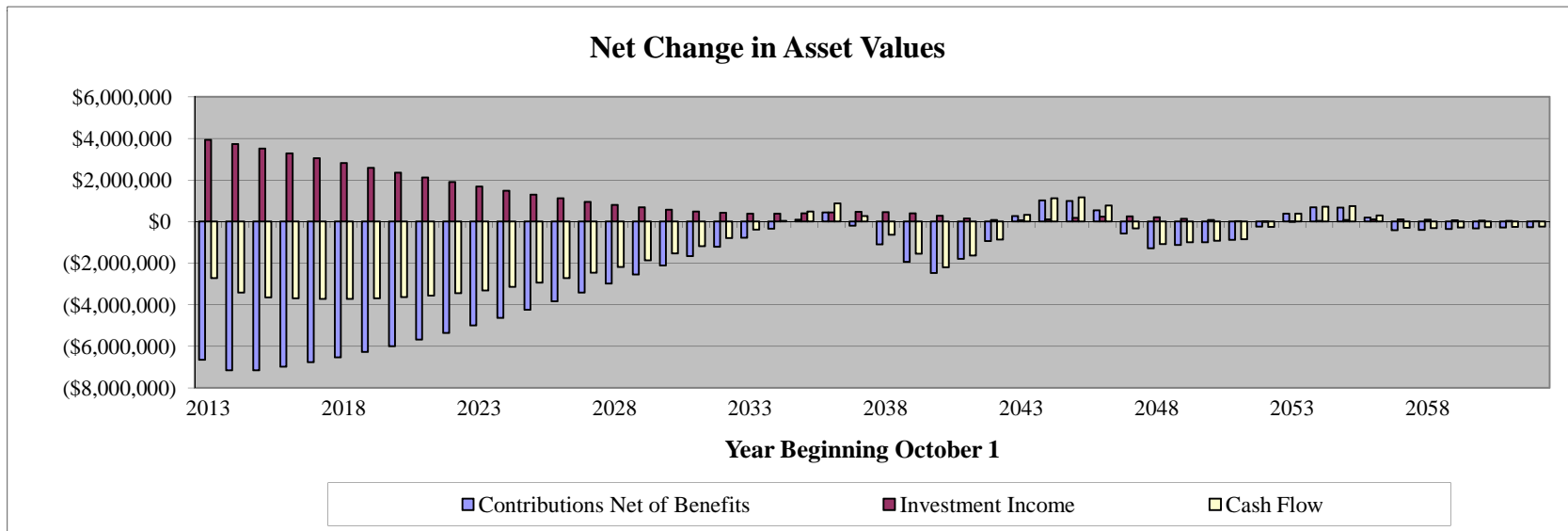
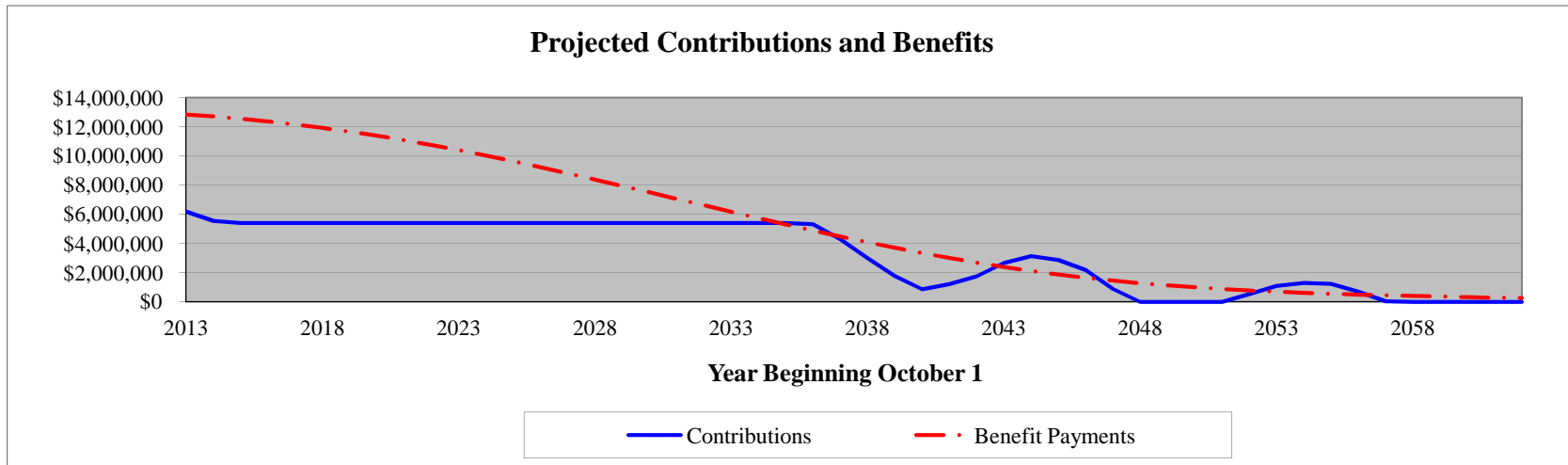
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments**

<b>Year Beginning <u>July 1</u></b>	<b>Value of Assessed Property</b>	<b>MVA Balance <u>July 1</u></b>	<b>Millage Rate</b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b>MVA Balance <u>June 30</u></b>	<b>Year Ending <u>June 30</u></b>
2013	\$1,204,887,625	\$63,720,297	0.00448	\$6,187,810	\$12,839,239	\$3,929,051	(\$2,722,378)	\$60,997,919	2014
2014	1,204,887,625	60,997,919	0.00448	5,554,532	12,708,425	3,736,023	(3,417,870)	57,580,049	2015
2015	1,204,887,625	57,580,049	0.00448	5,397,897	12,553,065	3,513,821	(3,641,347)	53,938,702	2016
2016	1,204,887,625	53,938,702	0.00448	5,397,897	12,372,622	3,282,906	(3,691,819)	50,246,883	2017
2017	1,204,887,625	50,246,883	0.00448	5,397,897	12,166,040	3,049,546	(3,718,597)	46,528,286	2018
2018	1,204,887,625	46,528,286	0.00448	5,397,897	11,932,795	2,815,298	(3,719,600)	42,808,686	2019
2019	1,204,887,625	42,808,686	0.00448	5,397,897	11,673,480	2,581,819	(3,693,764)	39,114,922	2020
2020	1,204,887,625	39,114,922	0.00448	5,397,897	11,389,518	2,350,808	(3,640,813)	35,474,109	2021
2021	1,204,887,625	35,474,109	0.00448	5,397,897	11,081,619	2,124,004	(3,559,718)	31,914,391	2022
2022	1,204,887,625	31,914,391	0.00448	5,397,897	10,750,855	1,903,203	(3,449,755)	28,464,636	2023
2027	1,204,887,625	16,351,128	0.00448	5,397,897	8,813,403	953,567	(2,461,939)	13,889,189	2028
2032	1,204,887,625	7,125,983	0.00448	5,397,897	6,617,526	424,175	(795,454)	6,330,529	2033
2037	1,204,887,625	7,331,278	0.00372	4,279,445	4,478,069	470,179	271,555	7,602,833	2038
2042	1,204,887,625	1,592,545	0.00223	1,747,644	2,681,248	73,651	(859,953)	732,592	2043
2047	1,204,887,625	4,114,839	0.00121	884,868	1,456,012	249,195	(321,949)	3,792,890	2048
2052	1,204,887,625	(47,733)	0.00065	538,281	779,534	(10,820)	(252,073)	(299,806)	2053
2057	1,204,887,625	1,841,234	0.00037	26,209	439,787	106,451	(307,127)	1,534,107	2058
2062	1,204,887,625	408,487	0.00022	0	264,671	18,085	(246,586)	161,901	2063



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**

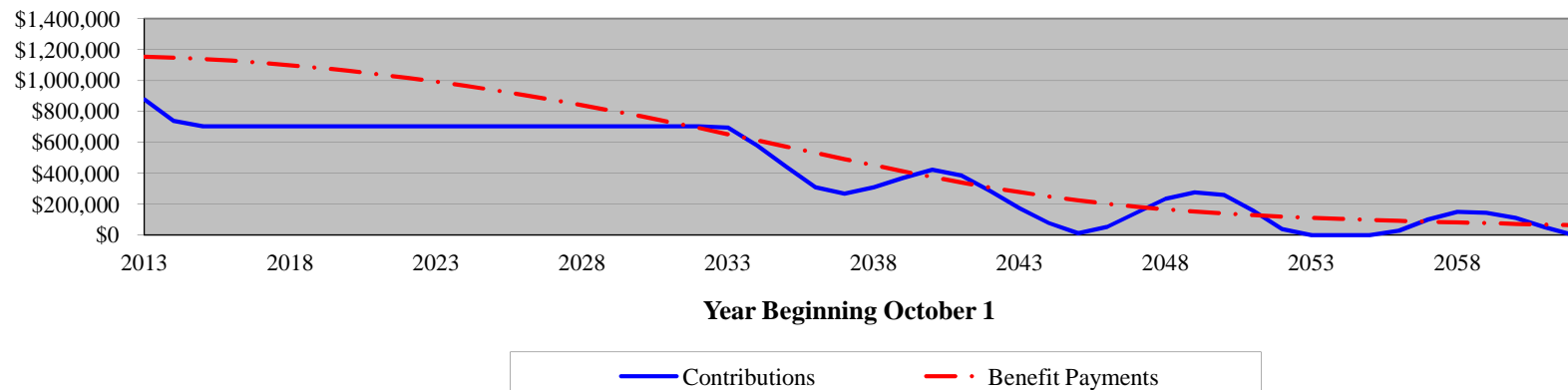
<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$157,631,930	\$3,686,224	0.00446	\$876,481	\$1,154,234	\$230,720	(\$47,033)	\$3,639,191	2014
2014	157,631,930	3,639,191	0.00446	739,688	1,148,705	223,464	(185,553)	3,453,638	2015
2015	157,631,930	3,453,638	0.00446	703,038	1,140,096	210,506	(226,552)	3,227,086	2016
2016	157,631,930	3,227,086	0.00446	703,038	1,128,652	196,146	(229,468)	2,997,618	2017
2017	157,631,930	2,997,618	0.00446	703,038	1,114,807	181,673	(230,096)	2,767,522	2018
2018	157,631,930	2,767,522	0.00446	703,038	1,099,176	167,217	(228,921)	2,538,601	2019
2019	157,631,930	2,538,601	0.00446	703,038	1,081,689	152,897	(225,754)	2,312,847	2020
2020	157,631,930	2,312,847	0.00446	703,038	1,062,280	138,843	(220,399)	2,092,448	2021
2021	157,631,930	2,092,448	0.00446	703,038	1,040,936	125,200	(212,698)	1,879,750	2022
2022	157,631,930	1,879,750	0.00446	703,038	1,017,700	112,118	(202,544)	1,677,206	2023
2027	157,631,930	1,022,461	0.00446	703,038	874,228	60,984	(110,206)	912,255	2028
2032	157,631,930	781,341	0.00439	703,038	692,329	51,130	61,839	843,180	2033
2037	157,631,930	726,176	0.00311	268,030	490,778	40,076	(182,672)	543,504	2038
2042	157,631,930	569,879	0.00195	283,488	307,430	36,276	12,334	582,213	2043
2047	157,631,930	30,108	0.00116	144,266	183,170	713	(38,191)	(8,083)	2048
2052	157,631,930	381,640	0.00076	38,225	119,374	22,211	(58,938)	322,702	2053
2057	157,631,930	(20,022)	0.00055	101,459	86,934	(837)	13,688	(6,334)	2058
2062	157,631,930	178,864	0.00040	0	63,639	9,590	(54,049)	124,815	2063



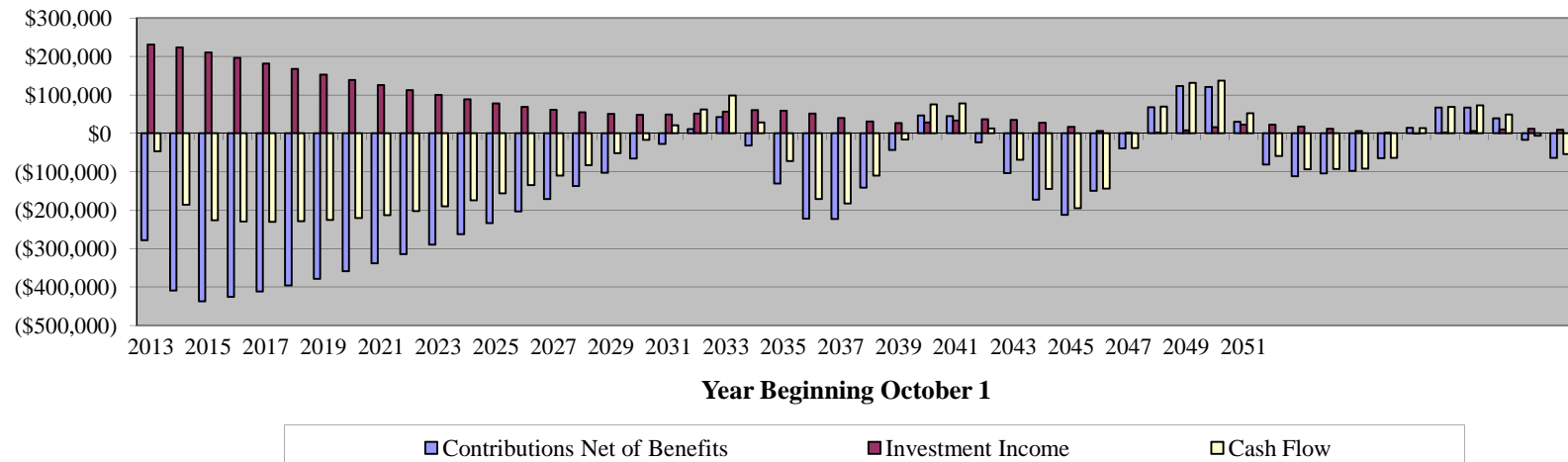
Mississippi Municipal Retirement Systems  
City of Laurel

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**

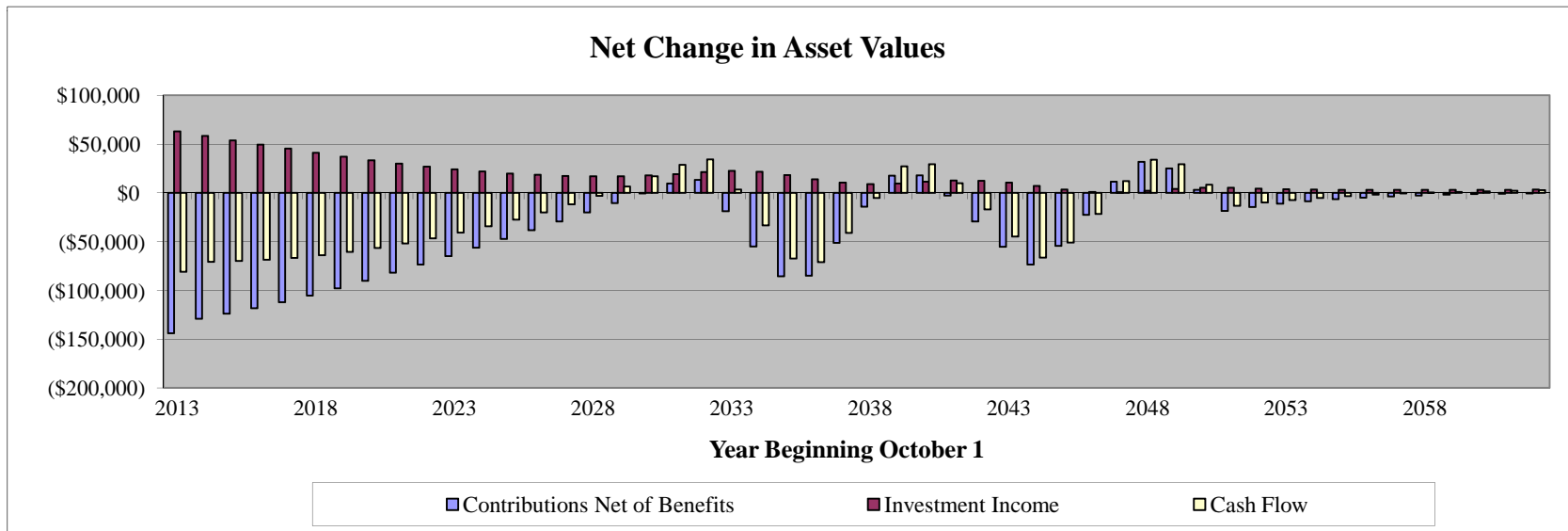
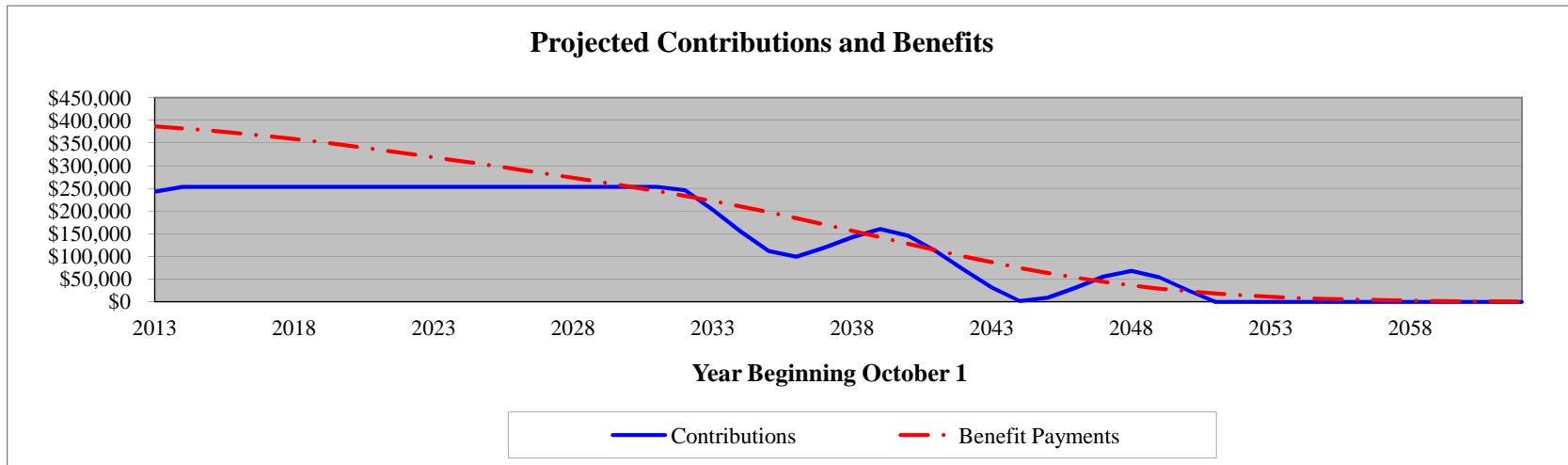
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments)**

<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$91,868,657	\$1,041,652	0.00276	\$242,759	\$386,743	\$63,102	(\$80,882)	\$960,770	2014
2014	91,868,657	960,770	0.00276	253,328	382,390	58,322	(70,740)	890,030	2015
2015	91,868,657	890,030	0.00276	253,557	377,427	53,890	(69,980)	820,050	2016
2016	91,868,657	820,050	0.00276	253,557	371,832	49,520	(68,755)	751,295	2017
2017	91,868,657	751,295	0.00276	253,557	365,605	45,250	(66,798)	684,497	2018
2018	91,868,657	684,497	0.00276	253,557	358,795	41,126	(64,112)	620,385	2019
2019	91,868,657	620,385	0.00276	253,557	351,469	37,193	(60,719)	559,666	2020
2020	91,868,657	559,666	0.00276	253,557	343,677	33,495	(56,625)	503,041	2021
2021	91,868,657	503,041	0.00276	253,557	335,507	30,076	(51,874)	451,167	2022
2022	91,868,657	451,167	0.00276	253,557	327,089	26,974	(46,558)	404,609	2023
2027	91,868,657	282,151	0.00276	253,557	282,871	17,402	(11,912)	270,239	2028
2032	91,868,657	319,355	0.00254	246,410	233,274	21,178	34,314	353,669	2033
2037	91,868,657	185,190	0.00186	119,175	170,628	10,391	(41,062)	144,128	2038
2042	91,868,657	205,328	0.00109	70,991	100,317	12,408	(16,918)	188,410	2043
2047	91,868,657	4,535	0.00048	55,364	44,073	656	11,947	16,482	2048
2052	91,868,657	74,588	0.00016	0	14,424	4,387	(10,037)	64,551	2053
2057	91,868,657	46,932	0.00004	0	3,608	2,935	(673)	46,259	2058
2062	91,868,657	51,447	0.00001	0	675	3,322	2,647	54,094	2063



Mississippi Municipal Retirement Systems  
City of McComb

50 Year Cash Flow Projection  
Based on Valuation Assumptions





**Mississippi Municipal Retirement Systems  
City of Meridian**

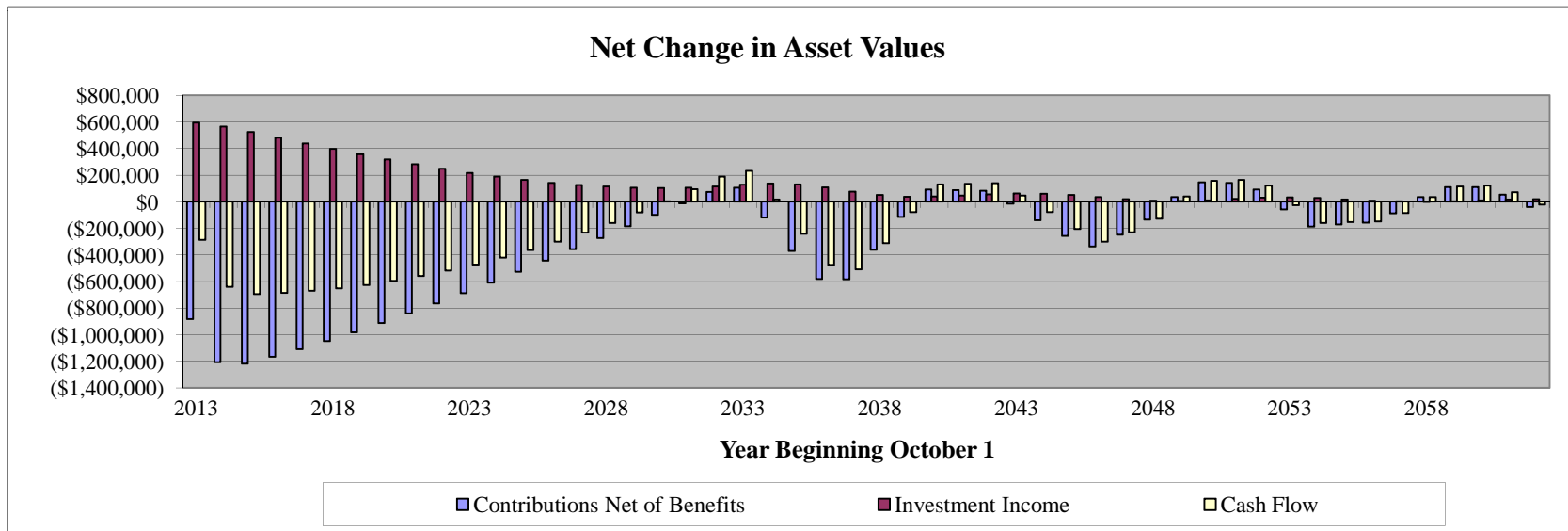
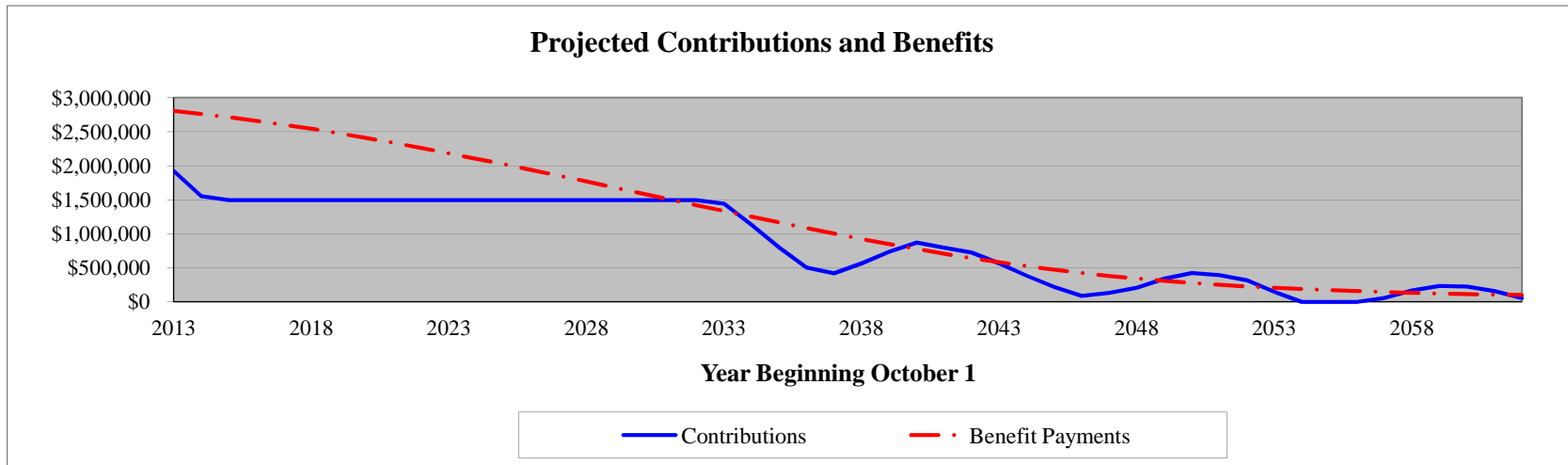
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments**

<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$320,700,514	\$9,589,925	0.00466	\$1,920,860	\$2,803,126	\$595,123	(\$287,143)	\$9,302,782	2014
2014	320,700,514	9,302,782	0.00466	1,552,992	2,760,006	566,070	(640,944)	8,661,838	2015
2015	320,700,514	8,661,838	0.00466	1,494,464	2,712,350	524,061	(693,825)	7,968,013	2016
2016	320,700,514	7,968,013	0.00466	1,494,464	2,660,079	480,635	(684,980)	7,283,033	2017
2017	320,700,514	7,283,033	0.00466	1,494,464	2,603,275	437,928	(670,883)	6,612,150	2018
2018	320,700,514	6,612,150	0.00466	1,494,464	2,542,090	396,278	(651,348)	5,960,802	2019
2019	320,700,514	5,960,802	0.00466	1,494,464	2,476,822	356,028	(626,330)	5,334,472	2020
2020	320,700,514	5,334,472	0.00466	1,494,464	2,407,744	317,526	(595,754)	4,738,718	2021
2021	320,700,514	4,738,718	0.00466	1,494,464	2,335,299	281,120	(559,715)	4,179,003	2022
2022	320,700,514	4,179,003	0.00466	1,494,464	2,260,009	247,147	(518,398)	3,660,605	2023
2027	320,700,514	2,105,496	0.00466	1,494,464	1,852,459	125,406	(232,589)	1,872,907	2028
2032	320,700,514	1,729,531	0.00443	1,494,464	1,420,977	114,770	188,257	1,917,788	2033
2037	320,700,514	1,450,439	0.00313	418,764	1,003,520	75,573	(509,183)	941,256	2038
2042	320,700,514	814,594	0.00200	725,182	642,349	55,598	138,431	953,025	2043
2047	320,700,514	414,278	0.00119	131,977	380,485	18,979	(229,529)	184,749	2048
2052	320,700,514	417,188	0.00070	316,445	226,054	30,009	120,400	537,588	2053
2057	320,700,514	49,543	0.00045	57,590	144,303	446	(86,267)	(36,724)	2058
2062	320,700,514	300,869	0.00031	57,371	98,051	18,255	(22,425)	278,444	2063



Mississippi Municipal Retirement Systems  
City of Meridian

50 Year Cash Flow Projection  
Based on Valuation Assumptions





**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**

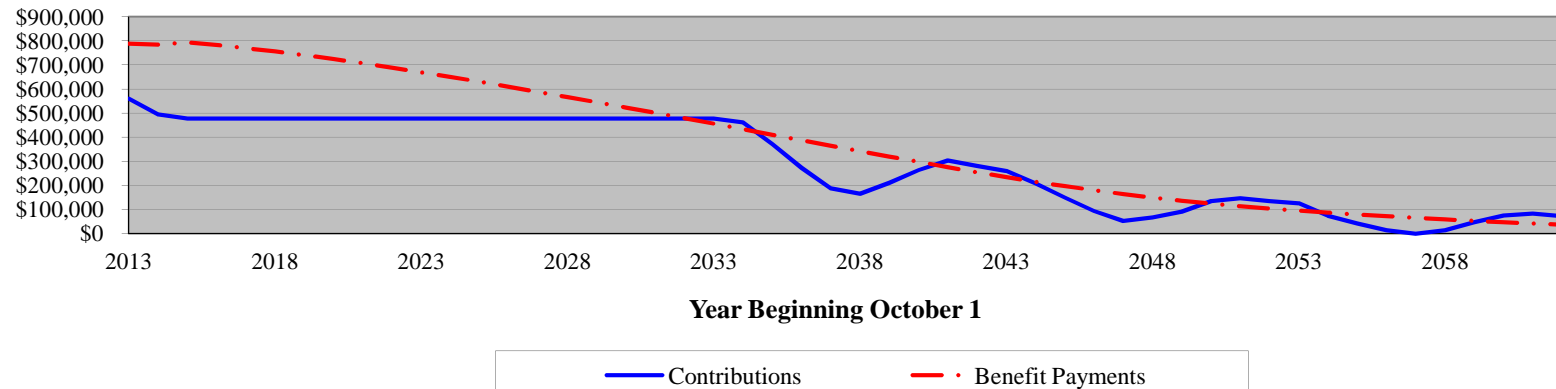
<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$133,482,257	\$2,580,806	0.00358	\$560,409	\$787,671	\$160,483	(\$66,779)	\$2,514,027	2014
2014	133,482,257	2,514,027	0.00358	495,412	784,251	154,172	(134,667)	2,379,360	2015
2015	133,482,257	2,379,360	0.00358	477,866	793,622	144,558	(171,198)	2,208,162	2016
2016	133,482,257	2,208,162	0.00358	477,866	782,491	133,786	(170,839)	2,037,323	2017
2017	133,482,257	2,037,323	0.00358	477,866	769,908	123,084	(168,958)	1,868,365	2018
2018	133,482,257	1,868,365	0.00358	477,866	755,913	112,549	(165,498)	1,702,867	2019
2019	133,482,257	1,702,867	0.00358	477,866	740,632	102,281	(160,485)	1,542,382	2020
2020	133,482,257	1,542,382	0.00358	477,866	724,202	92,375	(153,961)	1,388,421	2021
2021	133,482,257	1,388,421	0.00358	477,866	706,760	82,925	(145,969)	1,242,452	2022
2022	133,482,257	1,242,452	0.00358	477,866	688,444	74,023	(136,555)	1,105,897	2023
2027	133,482,257	680,348	0.00358	477,866	588,165	40,694	(69,605)	610,743	2028
2032	133,482,257	521,860	0.00358	477,866	478,704	33,894	33,056	554,916	2033
2037	133,482,257	612,965	0.00273	188,654	364,879	34,206	(142,019)	470,946	2038
2042	133,482,257	249,377	0.00191	281,409	254,808	17,060	43,661	293,038	2043
2047	133,482,257	261,239	0.00123	52,157	163,878	13,407	(98,314)	162,925	2048
2052	133,482,257	99,191	0.00078	135,466	103,938	7,456	38,984	138,175	2053
2057	133,482,257	100,014	0.00049	0	65,458	4,407	(61,051)	38,963	2058
2062	133,482,257	61,044	0.00028	72,413	37,084	5,098	40,427	101,471	2063



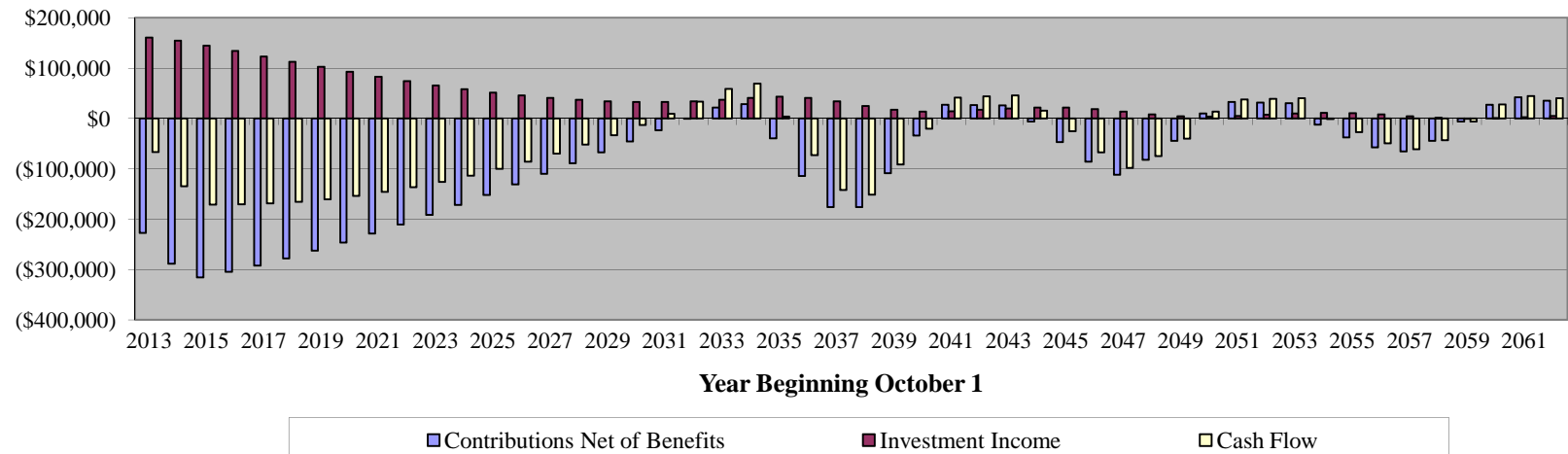
Mississippi Municipal Retirement Systems  
City of Natchez

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**



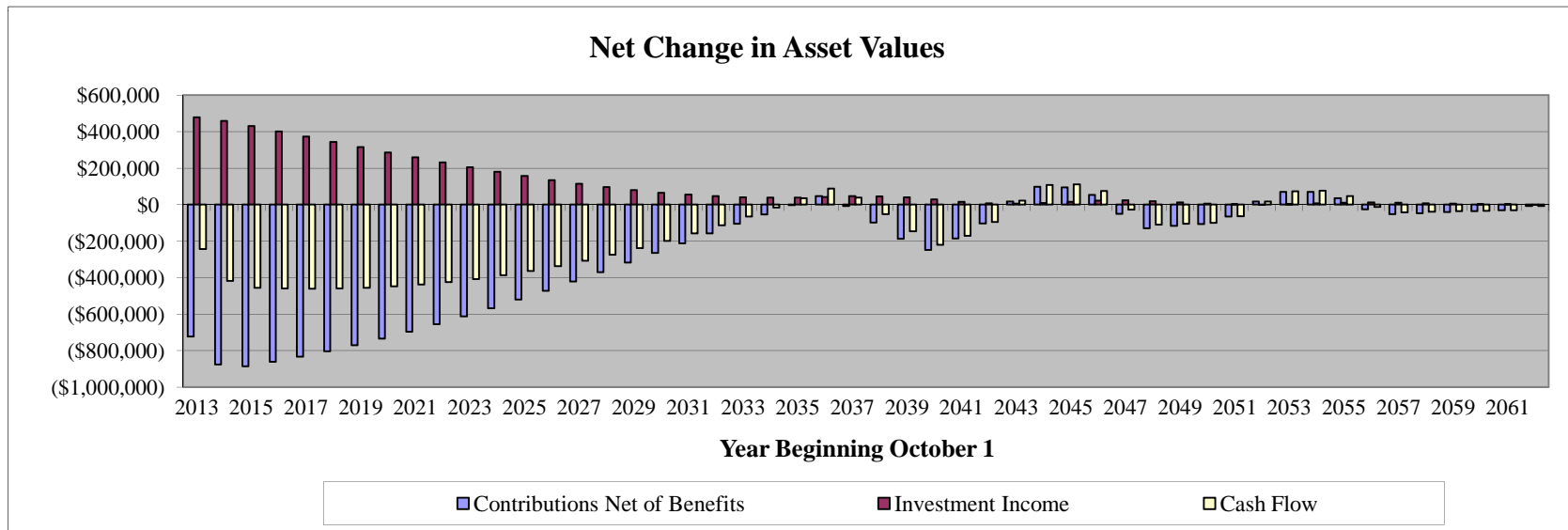
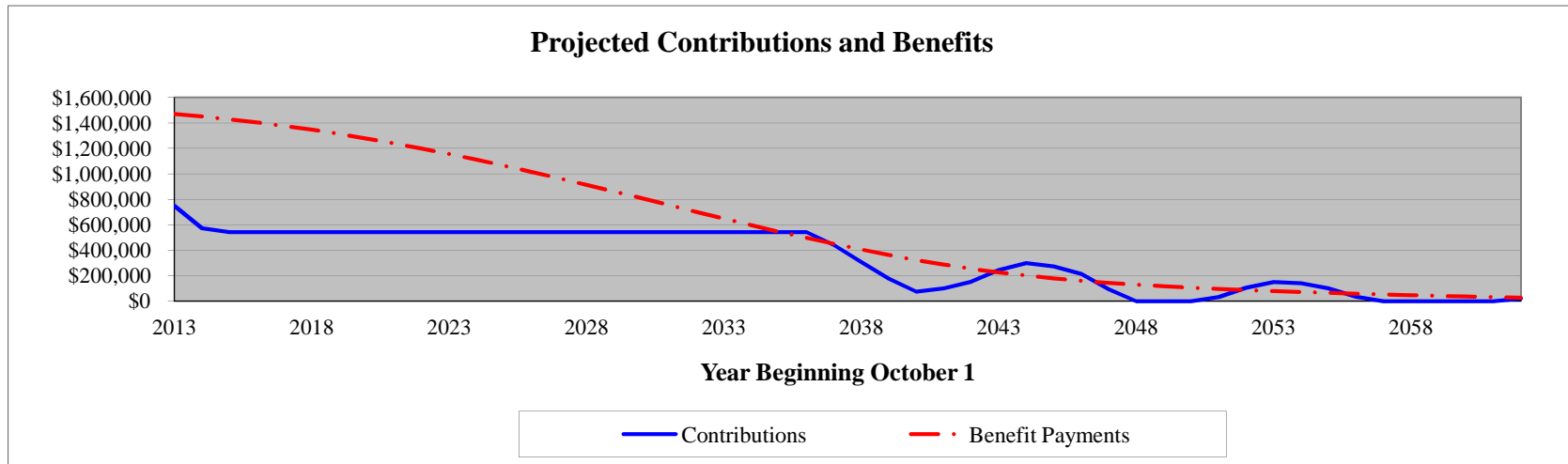
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments**

<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$251,316,365	\$7,721,911	0.00216	\$746,469	\$1,469,137	\$478,807	(\$243,861)	\$7,478,050	2014
2014	251,316,365	7,478,050	0.00216	573,630	1,449,888	458,043	(418,215)	7,059,835	2015
2015	251,316,365	7,059,835	0.00216	542,843	1,428,514	430,558	(455,113)	6,604,722	2016
2016	251,316,365	6,604,722	0.00216	542,843	1,404,128	401,756	(459,529)	6,145,193	2017
2017	251,316,365	6,145,193	0.00216	542,843	1,376,409	372,773	(460,793)	5,684,400	2018
2018	251,316,365	5,684,400	0.00216	542,843	1,346,060	343,792	(459,425)	5,224,975	2019
2019	251,316,365	5,224,975	0.00216	542,843	1,313,368	314,976	(455,549)	4,769,426	2020
2020	251,316,365	4,769,426	0.00216	542,843	1,277,458	286,514	(448,101)	4,321,325	2021
2021	251,316,365	4,321,325	0.00216	542,843	1,239,086	258,614	(437,629)	3,883,696	2022
2022	251,316,365	3,883,696	0.00216	542,843	1,198,375	231,471	(424,061)	3,459,635	2023
2027	251,316,365	1,962,960	0.00216	542,843	964,842	114,093	(307,906)	1,655,054	2028
2032	251,316,365	785,297	0.00216	542,843	701,162	45,980	(112,339)	672,958	2033
2037	251,316,365	716,455	0.00179	441,159	449,057	46,317	38,419	754,874	2038
2042	251,316,365	165,965	0.00102	152,704	255,206	7,509	(94,993)	70,972	2043
2047	251,316,365	385,880	0.00057	93,647	143,679	23,482	(26,550)	359,330	2048
2052	251,316,365	(19,670)	0.00035	105,334	87,525	(709)	17,100	(2,570)	2053
2057	251,316,365	179,477	0.00021	0	52,617	9,983	(42,634)	136,843	2058
2062	251,316,365	(2,227)	0.00011	19,214	26,677	(383)	(7,846)	(10,073)	2063



Mississippi Municipal Retirement Systems  
City of Pascagoula

50 Year Cash Flow Projection  
Based on Valuation Assumptions





**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)**

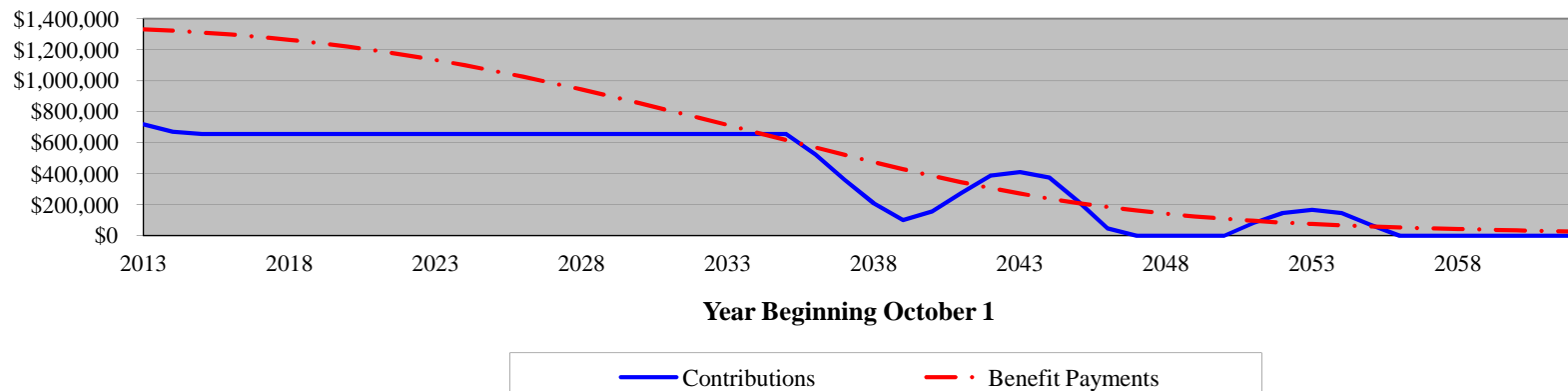
<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$428,294,227	\$6,020,214	0.00153	\$717,447	\$1,332,477	\$371,640	(\$243,390)	\$5,776,824	2014
2014	428,294,227	5,776,824	0.00153	671,351	1,323,114	354,645	(297,118)	5,479,706	2015
2015	428,294,227	5,479,706	0.00153	655,290	1,311,649	335,185	(321,174)	5,158,532	2016
2016	428,294,227	5,158,532	0.00153	655,290	1,297,959	314,747	(327,922)	4,830,610	2017
2017	428,294,227	4,830,610	0.00153	655,290	1,281,904	293,945	(332,669)	4,497,941	2018
2018	428,294,227	4,497,941	0.00153	655,290	1,263,420	272,913	(335,217)	4,162,724	2019
2019	428,294,227	4,162,724	0.00153	655,290	1,242,474	251,794	(335,390)	3,827,334	2020
2020	428,294,227	3,827,334	0.00153	655,290	1,219,036	230,743	(333,003)	3,494,331	2021
2021	428,294,227	3,494,331	0.00153	655,290	1,193,057	209,929	(327,838)	3,166,493	2022
2022	428,294,227	3,166,493	0.00153	655,290	1,164,535	189,532	(319,713)	2,846,780	2023
2027	428,294,227	1,714,599	0.00153	655,290	985,234	100,895	(229,049)	1,485,550	2028
2032	428,294,227	890,568	0.00153	655,290	760,775	54,513	(50,972)	839,596	2033
2037	428,294,227	993,863	0.00122	360,539	521,016	59,468	(101,009)	892,854	2038
2042	428,294,227	105,871	0.00072	388,337	306,876	9,487	90,948	196,819	2043
2047	428,294,227	455,722	0.00038	0	161,558	24,454	(137,104)	318,618	2048
2052	428,294,227	(45,307)	0.00020	145,739	84,643	(991)	60,105	14,798	2053
2057	428,294,227	183,147	0.00011	0	47,085	10,398	(36,687)	146,460	2058
2062	428,294,227	25,093	0.00006	0	25,935	801	(25,134)	(41)	2063



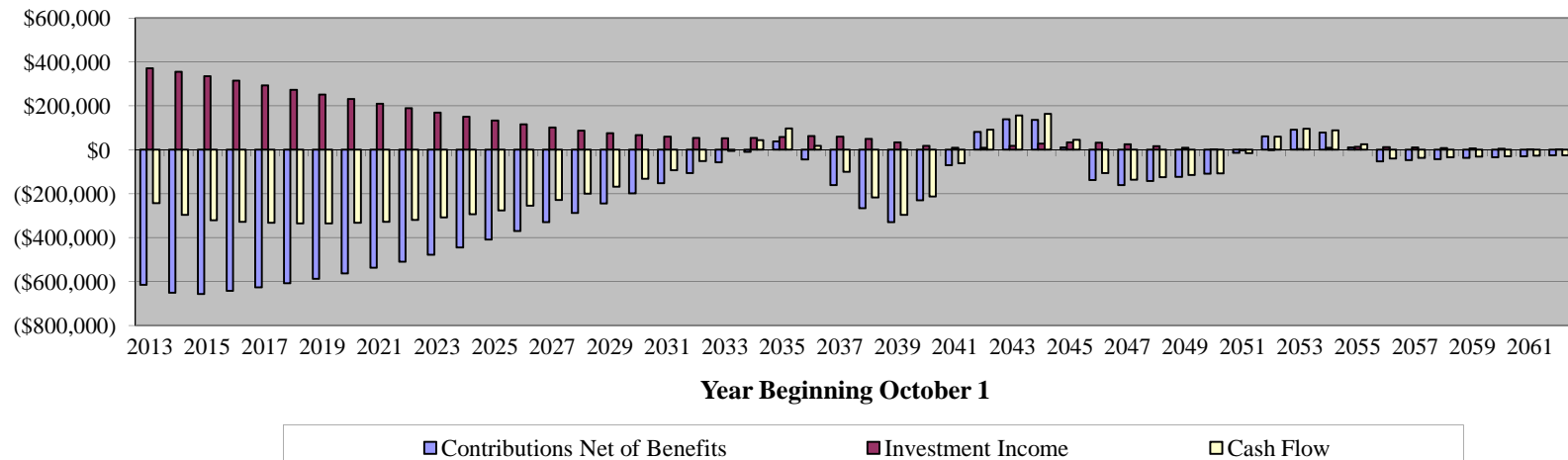
Mississippi Municipal Retirement Systems  
City of Tupelo

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**

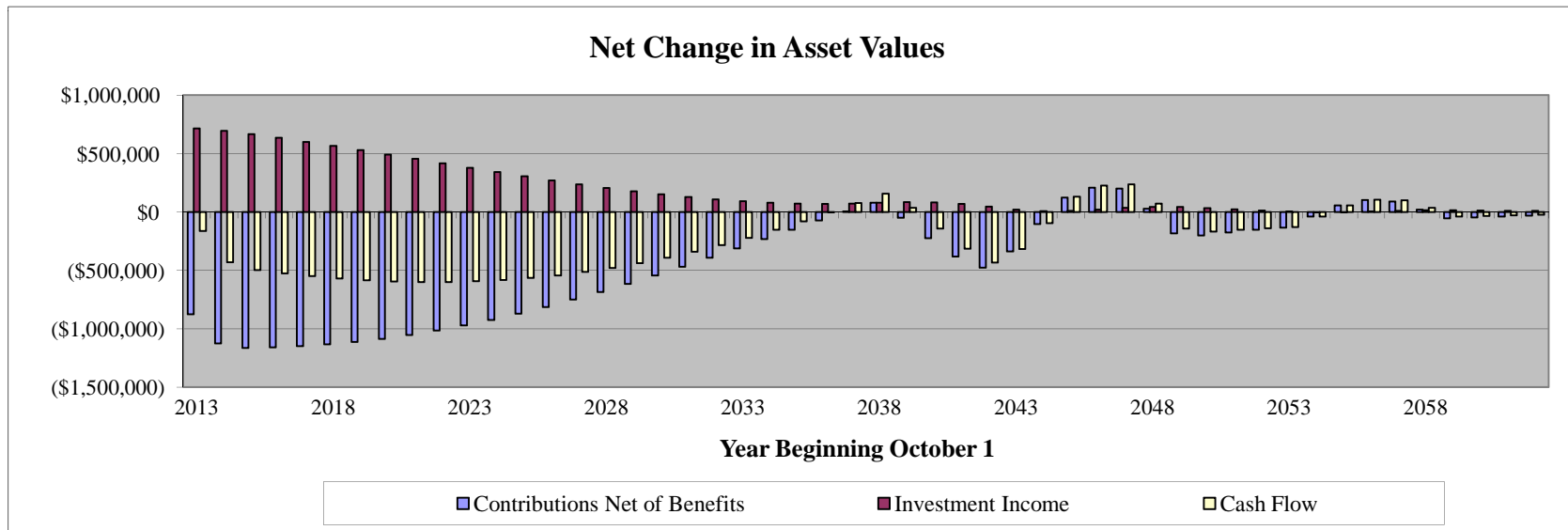
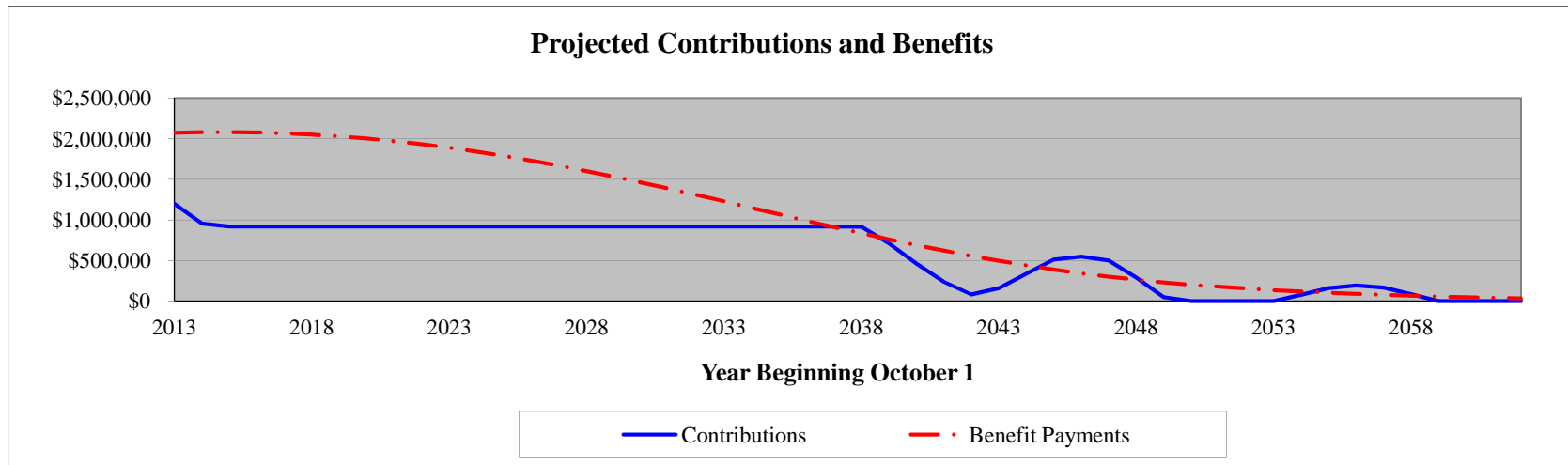
**Cash Flow Projection (Based on Post-2011 Funding Policy)  
No Assumed Growth in Assessed Property, Certified Millage Rates, Assume 6.5% on Investments**

<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$309,402,945	\$11,416,191	0.00296	\$1,196,834	\$2,074,000	\$713,993	(\$163,173)	\$11,253,018	2014
2014	309,402,945	11,253,018	0.00296	954,508	2,079,690	695,453	(429,729)	10,823,289	2015
2015	309,402,945	10,823,289	0.00296	915,833	2,080,417	666,261	(498,323)	10,324,966	2016
2016	309,402,945	10,324,966	0.00296	915,833	2,075,866	634,015	(526,018)	9,798,948	2017
2017	309,402,945	9,798,948	0.00296	915,833	2,065,809	600,146	(549,830)	9,249,118	2018
2018	309,402,945	9,249,118	0.00296	915,833	2,050,218	564,906	(569,479)	8,679,639	2019
2019	309,402,945	8,679,639	0.00296	915,833	2,028,960	528,569	(584,558)	8,095,081	2020
2020	309,402,945	8,095,081	0.00296	915,833	2,001,963	491,437	(594,693)	7,500,388	2021
2021	309,402,945	7,500,388	0.00296	915,833	1,969,378	453,824	(599,721)	6,900,667	2022
2022	309,402,945	6,900,667	0.00296	915,833	1,931,449	416,055	(599,561)	6,301,106	2023
2027	309,402,945	4,015,305	0.00296	915,833	1,667,209	236,960	(514,416)	3,500,889	2028
2032	309,402,945	1,848,095	0.00296	915,833	1,307,040	107,612	(283,595)	1,564,500	2033
2037	309,402,945	1,104,550	0.00295	915,833	911,403	71,937	76,367	1,180,917	2038
2042	309,402,945	915,203	0.00179	78,398	554,970	44,243	(432,329)	482,874	2043
2047	309,402,945	427,566	0.00097	499,699	299,162	34,207	234,744	662,310	2048
2052	309,402,945	268,455	0.00050	0	153,317	12,545	(140,772)	127,683	2053
2057	309,402,945	119,012	0.00025	165,100	75,919	10,589	99,770	218,782	2058
2062	309,402,945	150,224	0.00010	0	31,615	8,753	(22,862)	127,362	2063



Mississippi Municipal Retirement Systems  
City of Vicksburg

50 Year Cash Flow Projection  
Based on Valuation Assumptions





**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)**

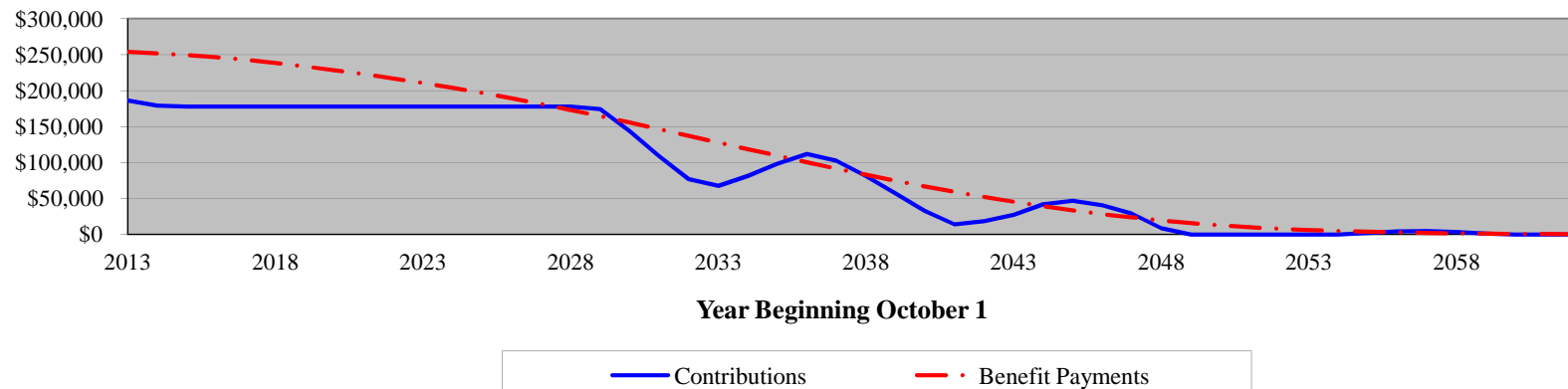
<b><u>Year Beginning July 1</u></b>	<b><u>Value of Assessed Property</u></b>	<b><u>MVA Balance July 1</u></b>	<b><u>Millage Rate</u></b>	<b><u>Contributions</u></b>	<b><u>Benefit Payments</u></b>	<b><u>Investment Income</u></b>	<b><u>Cash Flow</u></b>	<b><u>MVA Balance June 30</u></b>	<b><u>Year Ending June 30</u></b>
2013	\$45,461,843	\$579,996	0.00391	\$186,363	\$253,717	\$35,545	(\$31,809)	\$548,187	2014
2014	45,461,843	548,187	0.00391	179,006	251,683	33,307	(39,370)	508,817	2015
2015	45,461,843	508,817	0.00391	177,756	249,270	30,785	(40,729)	468,088	2016
2016	45,461,843	468,088	0.00391	177,756	246,453	28,228	(40,469)	427,619	2017
2017	45,461,843	427,619	0.00391	177,756	242,751	25,716	(39,279)	388,340	2018
2018	45,461,843	388,340	0.00391	177,756	238,365	23,303	(37,306)	351,034	2019
2019	45,461,843	351,034	0.00391	177,756	233,567	21,032	(34,779)	316,255	2020
2020	45,461,843	316,255	0.00391	177,756	228,373	18,937	(31,680)	284,575	2021
2021	45,461,843	284,575	0.00391	177,756	222,808	17,056	(27,996)	256,579	2022
2022	45,461,843	256,579	0.00391	177,756	216,867	15,427	(23,684)	232,895	2023
2027	45,461,843	195,828	0.00391	177,756	181,214	12,618	9,160	204,988	2028
2032	45,461,843	228,578	0.00302	76,673	137,258	12,920	(47,665)	180,913	2033
2037	45,461,843	112,912	0.00201	102,583	91,465	7,695	18,813	131,725	2038
2042	45,461,843	62,746	0.00114	18,356	52,002	3,002	(30,644)	32,102	2043
2047	45,461,843	49,388	0.00052	28,991	23,597	3,383	8,777	58,165	2048
2052	45,461,843	18,107	0.00018	0	8,020	920	(7,100)	11,007	2053
2057	45,461,843	842	0.00005	4,917	2,052	146	3,011	3,853	2058
2062	45,461,843	5,945	0.00001	0	384	374	(10)	5,935	2063



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

