



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

Prepared as of September 30, 2011



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February 20, 2012

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 <u>annual actuarial valuation</u> 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, 2012.

The date of the valuation was September 30, 2011.

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.

<u>Your attention is directed particularly</u> 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 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 Actuarial opinions contained herein.

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Board of Trustees February 20, 2012 Page 2

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,

Thong Cavarde

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

TJC/EJK:bdm

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# TABLE OF CONTENTS

Section	<u>Item</u>	Page No.
I	Summary of Principal Results	1
П	Membership Data	4
Ш	Actuarial Present Values	5
IV	Computed Employer Contribution Rates	7
V	Comments on Valuation	9
VI	Supplemental Disclosure Information	10

# <u>Schedule</u>

A	Development of Actuarial Value of Assets	20
В	Statement of Actuarial Assumptions and Methods	21
С	Summary of Benefit Provisions Evaluated	24
D	Detailed Tabulations of the Data	28
E	Analysis of Financial Experience	32
F	Glossary	34
G	The Nature of Actuarial Projections	35
н	Cash Flow Projections based on New Funding Policy	36



#### REPORT ON THE ANNUAL VALUATION OF THE MISSISSIPPI MUNICIPAL RETIREMENT SYSTEMS PREPARED AS OF SEPTEMBER 30, 2011

#### SECTION I – SUMMARY OF PRINCIPAL RESULTS

 This report, prepared as of September 30, 2011, 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 October 1, 2011.

VALUATION DATE	Se	September 30, 2011		September 30, 2010	
Active members included in valuation Number Annual compensation	\$	25 1,356,858	\$	27 1,424,636	
Retirees Number Annual allowances	\$	2,016 35,164,599	\$	2,056 35,418,572	
Assets Market related actuarial value Market value	\$ \$	167,603,976 165,251,479	\$ \$	175,987,876 142,982,154	
Unfunded employer liability	\$	196,349,233	\$	197,321,692	

## SUMMARY OF PRINCIPAL RESULTS

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



- 4. There were no changes in benefit provisions since the last valuation:
- 5. The following changes to the actuarial assumptions were made since the last valuation.
  - The post-retirement mortality table used for disability retirements has been changed.
- 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.
- 7. 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.
- 8. The table on the following page provides a ten-year history of some pertinent figures.



## Mississippi Municipal Retirement Systems

## Comparative Schedule\*

		Active Me	mbers			Ret	ired Lives		Valuation Results (\$ thousands)			
Valuation Date Sept 30	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	
2002	145	\$5,980	\$41,244	2.1%	2,246	.06	\$30,374.0	507.9%	\$394,628	\$259,586	\$135,042	
2003	110	4,584	41,673	1.0	2,246	.05	31,420.5	685.4	400,737	250,640	150,097	
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	

\*All amounts prior to 2005 reported by prior actuarial firm. \*\*Excluding COLA for years prior to 2005.



## 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 September 30, 2011 upon which the valuation was based. Detailed tabulations of the data are given in Schedule D.

	-	Group Averages						
Employers	Number		Payroll	Salary	Age*	Service*		
Biloxi	2	\$	125,324	\$62,662	59.1	40.0		
Clarksdale	1		42,781	42,781	59.7	37.3		
Clinton	6		322,234	53,706	53.8	31.4		
Columbus	1		64,485	64,485	61.6	37.4		
Greenville	0		0	0	0.0	0.0		
Greenwood	2		76,917	38,459	63.0	37.6		
Gulfport	2		164,017	82,009	57.9	36.8		
Hattiesburg	4		210,050	52,513	54.0	29.8		
Jackson	2		98,504	49,252	64.5	41.5		
Laurel	0		0	0	0.0	0.0		
McComb	0		0	0	0.0	0.0		
Meridian	3		168,784	56,261	72.3	46.1		
Natchez	1		34,546	34,546	61.0	35.8		
Pascagoula	1		49,216	49,216	63.0	36.5		
Tupelo	0		0	0	0.0	0.0		
Vicksburg	0		0	0	0.0	0.0		
Yazoo City	0		0	0	0.0	0.0		
Total in MRS	25	\$	1,356,858	\$54,274	59.7	36.2		

## **Active Members**

\*Years

#### **Retired Lives**

					Annual
Employers	Retirement	Disability	Survivor	Total	Benefit
Biloxi	62	9	57	128	\$2,203,113
Clarksdale	37	2	19	58	658,833
Clinton	24	0	4	28	639,775
Columbus	58	3	26	87	1,254,621
Greenville	57	0	30	87	1,056,011
Greenwood	44	3	17	64	816,395
Gulfport	58	11	30	99	1,828,157
Hattiesburg	114	8	35	157	3,283,341
Jackson	453	10	191	654	13,050,754
Laurel	72	4	24	100	1,238,115
McComb	15	4	11	30	347,145
Meridian	138	9	55	202	2,768,230
Natchez	32	5	24	61	804,070
Pascagoula	57	5	19	81	1,475,007
Tupelo	58	2	25	85	1,391,521
Vicksburg	42	5	29	76	2,078,217
Yazoo City	13	0	6	19	271,294
Total in MRS	1,334	80	602	2,016	\$35,164,599



## 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 September 30, 2011. 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 SEPTEMBER 30, 2011

	Actuarial Prese	ent Value, Septembe	er 30, 2011				
Municipality	Active Members*	Retired Members	Total	Portion Covered by Future Active Member Contributions	Total Employer Liability	Assets Used in Valuation	Unfunded Employer Liability
Bilovi	\$1 084 835	\$23 282 682	\$21 367 517	\$36 776	\$24 330 741	\$10 /56 3/9	\$13 87 <i>1</i> 302
Clarksdale	\$1,00 <del>4</del> ,000 285,207	φ23,202,002 6 393 661	6 678 868	ψ30,770 13.457	φ24,550,741 6 665 411	ψ10,430,349 1 202 585	φ13,074,392 5 372 826
Clinton	2 740 443	7 340 613	10 081 056	66 932	10 014 124	7 863 468	2 150 656
Columbus	500.377	11.967.261	12.467.638	15.160	12.452.478	1,467,184	10.985.294
Greenville	0	10,525,018	10,525,018	0	10,525,018	3,883,098	6,641,920
Greenwood	526,733	8,070,987	8,597,720	12,770	8,584,950	3,139,799	5,445,151
Gulfport	1,286,783	19,905,848	21,192,631	46,941	21,145,690	10,336,724	10,808,966
Hattiesburg	1,811,455	36,620,908	38,432,363	74,442	38,357,921	21,940,196	16,417,725
Jackson	780,132	126,700,800	127,480,932	8,868	127,472,064	65,786,120	61,685,944
Laurel	0	12,755,359	12,755,359	0	12,755,359	3,484,096	9,271,263
McComb	0	3,517,006	3,517,006	0	3,517,006	1,134,699	2,382,307
Meridian	1,022,338	26,215,843	27,238,181	3,723	27,238,181	8,532,645	18,701,813
Natchez	231,040	7,990,839	8,221,879	9,674	8,212,205	2,316,313	5,895,892
Pascagoula	372,150	13,842,343	14,214,493	8,687	14,205,806	7,591,553	6,614,253
Tupelo	0	13,953,799	13,953,799	0	13,953,799	6,361,944	7,591,855
Vicksburg	0	21,866,252	21,866,252	0	21,866,252	11,432,444	10,433,808
Yazoo City	0	2,659,927	2,659,927	0	2,659,927	584,759	2,075,168
Total in MRS	\$10,641,493	\$353,609,146	\$364,250,639	\$297,430	\$363,953,209	\$167,603,976	\$196,349,233

\*Includes liability for refund of member contributions to current inactive members.



#### SECTION IV - COMPUTED EMPLOYER CONTRIBUTION RATES

			<u>Comput</u>	ed Rates		
Municipality	Members Contributions*	Current Rate	Pre-2011 Funding Policy Rate^^	Post-2011 Funding Policy Rate	Certified This Year	Value of Assessed Property#
	<b>a a a a a a a a a a</b>		4.00			
Biloxi	9.00%	2.50	4.00	2.38	2.38	\$535,701,881
Clarksdale	10.00	8.26	9.76	6.19	6.19	82,426,519
Clinton	8.00	1.49	1.69	1.39	1.39	189,540,517
Columbus	10.00	6.08	8.93	5.82	5.82	188,555,406
Greenville	10.00	3.46	5.45	3.28	3.28	187,948,497
Greenwood	10.00	5.62	7.64	4.70	4.70	108,478,499
Gulfport	8.00	1.73	2.26	1.38	1.38	723,157,372
Hattiesburg	10.00	4.82	6.13	3.82	3.82	404,544,340
Jackson	10.00	5.56	7.87	4.89	4.89	1,197,937,482
Laurel	10.00	6.11	8.53	5.21	5.21	165,834,244
McComb	10.00	3.52	3.71	2.30	2.30	94,736,120
Meridian**	10.00	7.93	8.71	5.45	5.45	318,777,866
Natchez	10.00	7.22	7.54	4.58	4.58	115,314,119
Pascagoula	10.00	4.00	3.72	2.46	2.46	258,275,296
Tupelo	7.00	1.89	2.73	1.66	1.66	426,120,432
Vicksburg	10.00	5.14	4.91	3.18	3.18	309,792,887
Yazoo City	10.00	4.35	6.96	4.26	4.26	46,073,238

#### Mississippi Municipal Retirement Systems Computed Employer Contribution Rates^ September 30, 2011

\* % of Active Member Payroll

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

Millage rates applied to assessed property

^ 9 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.

Municipality	2007	2008	2009	2010	2011	Average % Increase
Biloxi	\$480,639,728	\$577,849,308	\$571,430,139	\$559,074,350	\$535,701,881	2.7%
Clarksdale	82,076,570	82,197,541	82,341,759	79,843,165	82,426,519	0.1
Clinton	161,429,937	198,044,105	195,998,835	190,295,542	189,540,517	4.1
Columbus	166,184,864	194,377,153	197,429,681	189,758,903	188,555,406	3.2
Greenville	175,958,442	185,200,364	199,102,309	186,244,918	187,948,497	1.7
Greenwood	101,850,934	103,617,755	110,705,308	107,470,679	108,478,499	1.6
Gulfport	567,325,774	676,613,177	692,445,751	714,107,871	723,157,372	6.3
Hattiesburg	361,997,540	373,529,402	419,964,225	420,131,692	404,544,340	2.8
Jackson	1,096,844,802	1,199,789,082	1,192,518,712	1,178,470,596	1,197,937,482	2.2
Laurel	150,805,399	157,523,646	159,090,036	156,784,022	165,834,244	2.4
McComb	82,466,218	95,838,561	98,066,834	96,120,588	94,736,120	3.5
Meridian	255,115,910	298,962,692	333,848,292	330,138,193	318,777,866	5.7
Natchez	107,355,191	111,614,507	122,923,066	126,255,702	115,314,119	1.8
Pascagoula	202,264,552	232,334,196	243,161,223	260,099,582	258,275,296	6.3
Tupelo	407,520,057	434,986,754	427,464,655	426,470,182	426,120,432	1.1
Vicksburg	308,099,532	308,537,130	313,486,815	314,435,776	309,792,887	0.1
Yazoo City	42,610,907	47,299,228	47,553,993	45,340,719	46,073,238	2.0

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



#### 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 current millage rates for all of the municipalities are higher than the computed rates for the 2011-2012 fiscal year under the post-2011 funding policy. Therefore, if desired, each municipality can lower their current millage rate to the certified millage rate for the 2011-2012 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 2008 and 2009 fiscal years. However, there were gains due to fewer service retirements than expected, smaller payroll increases than expected and more retiree deaths than expected. Other decrements created smaller gains and losses, but overall the System had a large actuarial loss for the year.
- 3. The value of assessed property decreased for ten of the seventeen municipalities. Under the new funding policy, the value of assessed property is assumed to remain level. However, 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 SEPTEMBER 30, 2011

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	2,016
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	0
Inactive Participants	1
Active Participants	25
Total	2,042



2. The actuarial accrued liability is as follows:

(\$ In Thousands)									
Municipality	Actives	Retirees	Total Actuarial Accrued Liability	Actuarial Value of Assets	Unfunded Actuarial Accrued Liability				
	• · · · ·	•		<b>•</b> • • • • • • •	• · · · · · ·				
Biloxi	\$1,002	\$23,283	\$24,285	\$10,456	\$13,829				
Clarksdale	260	6,394	6,654	1,293	5,361				
Clinton	2,580	7,341	9,921	7,863	2,058				
Columbus	470	11,967	12,437	1,467	10,970				
Greenville	0	10,525	10,525	3,883	6,642				
Greenwood	501	8,071	8,572	3,140	5,432				
Gulfport	1,189	19,906	21,095	10,337	10,758				
Hattiesburg	1,653	36,621	38,274	21,940	16,334				
Jackson	761	126,700	127,461	65,786	61,675				
Laurel	0	12,755	12,755	3,484	9,271				
McComb	0	3,517	3,517	1,135	2,382				
Meridian	1,013	26,216	27,229	8,533	18,696				
Natchez	211	7,991	8,202	2,316	5,886				
Pascagoula	355	13,842	14,197	7,592	6,605				
Tupelo	0	13,954	13,954	6,362	7,592				
Vicksburg	0	21,866	21,866	11,432	10,434				
Yazoo City	0	2,660	2,660	585	2,075				
Totals	\$9,995	\$353,609	\$363,604	\$167,604	\$196,000				

## ACTUARIAL ACCRUED LIABILITY (\$ In Thousands)

During the year ended September 30, 2011, the Systems experienced a net decrease of \$9,293 thousand

in the actuarial accrued liability.



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

Plan Year Ended	(1) Actuarial Value of Assets	(2) Actuarial Accrued Liability (AAL) Entry Age	(3) Percent Funded (1)/(2)	(4) Unfunded AAL (2) – (1)	(5) Annual Covered Payroll	(6) Unfunded AAL as a Percentage of Covered Payroll (4)/(5)
09/30/02	\$259,586	\$393,011	66.1%	\$133,425	\$5,980	2,231.2%
09/30/03	250,640	399,622	62.7	148,982	4,584	3,250.0
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

# SCHEDULE OF FUNDING PROGRESS (\$ Thousands)

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



# History of Funding Progress

			Actı	uarial Value	e of Assets	as Percen	tage of AA	L		
Municipality	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Biloxi	28.83%	34.20%	36.17%	38.06%	42.27%	47.01%	50.93%	45.80%	45.13%	43.06%
Clarksdale	14.07	14.19	13.91	13.25	13.60	15.11	15.40	14.44	16.56	19.43
Clinton	99.05	97.54	92.32	89.94	89.99	90.69	92.34	86.80	80.83	79.26
Columbus	9.13	9.52	9.67	9.57	10.03	9.89	9.95	10.62	10.92	11.80
Greenville	53.91	51.28	47.79	42.78	42.46	42.73	44.25	40.58	39.28	36.89
Greenwood	33.53	32.78	30.90	29.41	30.70	33.77	36.46	34.24	33.94	36.63
Gulfport	58.11	47.33	46.08	44.46	46.36	49.15	50.66	48.14	46.52	49.00
Hattiesburg	73.56	72.87	68.03	65.49	65.44	67.34	68.39	62.14	59.03	57.32
Jackson	93.99	87.71	82.85	76.12	73.56	72.41	70.38	59.47	53.94	51.61
Laurel	29.41	26.99	25.22	22.64	23.57	26.30	28.86	26.77	26.79	27.31
McComb	48.44	45.44	42.79	39.64	39.44	40.34	37.07	32.66	29.72	32.26
Meridian	37.64	35.95	33.80	31.11	31.05	31.86	32.36	31.08	30.92	31.34
Natchez	16.26	17.26	18.23	19.15	21.67	24.52	27.83	26.33	27.06	28.24
Pascagoula	66.14	64.34	60.54	56.80	58.04	57.75	58.67	54.36	53.87	53.47
Tupelo	72.16	68.51	65.08	58.86	58.13	59.64	61.21	55.33	48.91	45.59
Vicksburg	69.69	65.92	70.20	68.44	67.01	63.26	67.51	57.85	53.87	52.28
Yazoo City	36.40	34.51	33.10	30.42	29.98	28.62	27.85	28.91	25.65	21.98



## History of Funding Progress

			Unfi	unded Actuaria	al Accrued Lia	bility as a Perc	centage of Pay	vroll		
Municipality	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Biloxi	5,076.10%	5,986.55%	5,413.36%	5,709.27%	9,039.33%	11,030.00%	8,832.26%	10,973.44%	10,266.41%	11,063.20%
Clarksdale	18,802.63	18,007.69	17,833.33	17,007.50	16,560.00	15,607.32	15,126.83	15,704.88	13,639.53	12,467.44
Clinton	10.99	28.52	104.90	182.77	280.12	298.34	241.37	417.52	599.06	639.13
Columbus	7,727.54	9,709.77	11,963.21	24,069.23	24,140.00	22,168.52	21,715.09	20,969.09	20,494.55	17,140.63
Greenville	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Greenwood	3,365.05	3,908.43	4,002.84	3,844.62	6,345.87	5,841.67	5,209.09	5,429.46	5,367.57	7,054.55
Gulfport	1,346.60	3,037.01	5,466.09	6,162.80	9,374.62	8,110.07	7,019.87	7,133.33	7,209.70	6,559.76
Hattiesburg	624.09	842.72	1,494.96	1,826.91	2,533.14	2,781.22	4,084.43	4,814.94	6,110.38	7,778.10
Jackson	704.67	2,346.16	3,627.23	9,531.64	11,477.43	16,846.85	17,669.86	28,242.41	64,956.99	62,297.98
Laurel	23,734.15	25,757.50	23,388.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A
McComb	2,406.17	4,853.49	4,780.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Meridian	5,005.64	5,806.45	9,466.04	9,129.20	11,553.98	10,540.43	12,080.38	12,031.71	11,550.00	11,062.72
Natchez	3,666.02	3,510.70	4,065.19	3,910.44	3,598.39	3,263.78	4,005.48	18,177.14	17,345.71	16,817.14
Pascagoula	1,716.01	3,181.08	4,172.08	4,367.52	3,788.30	6,330.78	10,610.17	14,785.11	14,182.98	13,479.59
Tupelo	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vicksburg	12,527.27	15,146.67	12,247.83	13,221.74	14,791.30	17,651.06	14,073.47	19,368.00	N/A	N/A
Yazoo City	4,228.89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



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.

#### 2011/2012 FISCAL YEAR ANNUAL REQUIRED CONTRIBUTION (ARC) BASED ON THE VALUATION AS OF SEPTEMBER 30, 2011

ANNUAL REQUIRED CO	NTRIBUTION (ARC)
Normal	\$  144,345
Accrued liability	<u>  18,606,799</u>
Total	\$18,751,144

## 5. Additional information as of September 30, 2011 follows.

Valuation date	9/30/11
Actuarial cost method	Entry age
Amortization method	Level dollar closed
Remaining amortization period	23 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
		oonanono

Fiscal Year 10/1-9/30	Valuation date 9/30	Annual Required Contribution	Percentage Contributed
2002-03	2002	\$11,989,227	116.6%
2003-04	2003	13,285,885	104.5
2004-05	2004	14,090,896	100.6
2005-06	2005	15,397,375	101.5
2006-07	2006	15,425,924	97.1
2007-08	2007	15,218,583	106.0
2008-09	2008	14,764,994	114.4
2009-10	2009	17,739,274	120.8
2010-11	2010	18,576,054	122.7
2011-12	2011	18,751,144	

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

# Contributions Required and Contributions Made

Municipality	Annual Required Contribution	Actual 2010 – 2011 Contribution	Percentage Contributed
Biloxi	\$1,273,514	\$1,351,393	106.1%
Clarksdale Clinton	552,434 223,679	726,570 185,901	131.5 83.1
Columbus	1,061,836	1,263,027	118.9
Greenville	593,094	733,277	123.6
Greenwood Gulfport	571,815	1.526.015	134.1 135.2
Hattiesburg	1,519,076	1,775,936	116.9
Jackson	5,658,155	6,620,526	117.0
Laurel	884,573	1,144,663	129.4
Meridian	259,741	301,700	116.2
Natchez	571.742	800.545	140.0
Pascagoula	628,255	1,061,665	169.0
Tupelo	677,774	815,000	120.2
Vicksburg	977,117	1,119,099	114.5
Yazoo City	186,932	161,439	86.4
Total	\$18,576,054	\$22,790,933	122.7%



# Solvency Tests (\$ in Thousands)

	Actuar	ial Accrued Liabilit	ies 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	(1)	Portions of Accrued Liabilities Covered by Assets (2)	(3)
9/30/02	\$7,806	\$349,140	\$36,064	\$259,587	100%	72.1%	0.0%
9/30/03	6,266	365,063	28,293	250,640	100	66.9	0.0
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



			Active Me	mbers	
Valuation Date	Number of Employers	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay
9/30/02	17	145	\$5 980 337	\$41 244	2 1%
9/30/03	17	140	4,584,061	41,673	1.0
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

#### Schedule of Active Member Valuation Data

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

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

	Fiscal Year Ended September 30									
Item	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Beginning of Year	2,258	2,246	2,246	2,242	2,225	2,200	2,167	2,123	2,090	2,056
Added	70	71	54	67	46	42	39	37	44	46
Removed	(82)	(71)	(58)	(84)	(71)	(75)	(83)	(70)	(78)	(86)
End of Year	2,246	2,246	2,242	2,225	2,200	2,167	2,123	2,090	2,056	2,016



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

Year Ending	2006	2007	2008	2009	2010	2011
Beginning of Year	\$34,607,895	\$35,188,059	\$35,555,206	\$35,455,803	\$35,456,684	\$35,418,572
Added	806,363	744,852	538,293	549,390	676,051	792,381
Removed	(684,252)	(998,616)	(894,867)	(873,282)	(1,000,144)	(1,233,853)
Benefit increase due to annual COLA	458,053	429,844	257,171	324,773	285,981	187,499
Benefit increase due to plan amendments						
amonamonto	0	191,067	0	0	0	0
End of Year	\$35,188,059	\$35,555,206	\$35,455,803	\$35,456,684	\$35,418,572	\$35,164,599



		2010	2011	2012	2013	2014	2015
Α.	Actuarial Value Beginning of Year	\$191,178,665	\$175,987,876				
В.	Market Value End of Year	142,982,154	165,251,479				
C.	Market Value Beginning of Year	138,167,782	142,982,154				
D.	Cash Flow						
	D1. Contributions	21,567,222	22,916,508				
	D2. Other Revenue	0	0				
	D3. Benefit Payments	(35,764,658)	(35,628,239)				
	D4. Administrative Expenses	(428,516)	(455,819)				
	D5. Investment Expenses	<u>0</u>	<u>0</u>				
	D6. Net	(14,625,952)	(13,167,550)				
Ε.	Investment Income						
	E1. Market Total: BCD6.	19,440,324	35,436,875				
	E2. Assumed Rate	8.00%	8.00%				
	E3. Amount for Immediate Recognition	10,468,384	10,911,870				
	E4. Amount for Phased-In Recognition	8,971,940	24,525,005				
F.	Phased-In Recognition of Investment Income						
	F1. Current Year: 0.20*E4.	1,794,388	4,905,001	0	0	0	0
	F2. First Prior Year	(10,111,395)	1,794,388	4,905,001	0	0	0
	F3. Second Prior Year	(7,132,882)	(10,111,395)	1,794,388	4,905,001	0	0
	F4. Third Prior Year	4,416,668	(7,132,882)	(10,111,395)	1,794,388	4,905,001	0
	F5. Fourth Prior Year	0	4,416,668	<u>(7,132,882)</u>	<u>(10,111,395)</u>	<u>1,794,388</u>	<u>4,905,001</u>
	F6. Total Recognized Investment Gain	(11,033,221)	(6,128,220)	(10,544,888)	(3,412,006)	6,699,389	4,905,001
G.	Actuarial Value End of Year:						
	A.+D6.+E3.+F6.	\$175,987,876	\$167,603,976				
Н.	Final Actuarial Value of Assets:	\$175,987,876	\$167,603,976				
١.	Difference Between Market & Actuarial Values	(33,005,722)	(2,352,497)	8,192,391	11,604,397	4,905,008	7

SCHEDULE A Development of Actuarial Value of Assets

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 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:

		Death		Disability		
Age	Withdrawal	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			



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

SALARY INCREASES: 4.25% for wage inflation plus the following chart.

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 1994 Group Annuity Mortality Table. The RP-2000 Disabled Mortality Table (set back 2 years for males and set forward 3 years for females) was used for the period after disability retirement. This assumption is used to measure the probabilities of each benefit payment being made after retirement.

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 September 30, 2011, 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 RetirementA retirement allowance is payable to any member who<br/>retires and has completed at least 20 years of creditable<br/>service, regardless of age.Any general employee member who has attained age 70<br/>and any fireman or policeman who has attained age 65

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

shall be retired forthwith.

- 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	<ul> <li>A benefit is payable upon the death of a member under the following conditions:</li> <li>(a) the member has retired,</li> <li>(b) the member is eligible to retire,</li> <li>(c) the death is in the line of duty, or</li> <li>(d) the death is not in the line of duty, but occurs after the member has 5 years of credited service.</li> </ul>
	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 of 5% allowances increase in 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 September 30, 2011 Tabulated by Year of Retirement

Year of Retirement	Number	Total Annual Benefits, excluding COLA	COLA	Total Annual Benefits	Average Monthly Benefit
2011	1	\$25,791	\$0	\$25,791	\$2,149
2010	5	156,182	2,058	158,240	2,637
2009	3	79,418	2,388	81,806	2,272
2008	7	177,629	3,398	181,027	2,155
2007	9	267,877	18,585	286,462	2,652
2006	16	386,191	31,755	417,946	2,177
2005	31	754,917	96,966	851,883	2,290
2004	24	494,005	61,271	555,276	1,928
2003	33	866,767	120,149	986,916	2,492
2002	43	1,174,528	216,567	1,391,095	2,696
2001	26	743,161	118,801	861,962	2,763
2000	40	990,654	195,425	1,186,079	2,471
1999	39	917,070	164,360	1,081,430	2,311
1998	43	1,011,695	182,693	1,194,388	2,315
1997	54	1,146,815	183,339	1,330,154	2,053
1996	62	1,205,534	187,787	1,393,321	1,873
1995	109	1,875,538	269,043	2,144,581	1,640
1994	143	2,439,117	412,697	2,851,814	1,662
1993	101	1,693,791	296,979	1,990,770	1,643
1992	100	1,662,686	272,408	1,935,094	1,613
1991	84	1,407,243	211,475	1,618,718	1,606
1990	71	1,046,404	158,140	1,204,544	1,414
1989	56	753,560	155,398	908,958	1,353
1988	89	1,297,471	242,733	1,540,204	1,442
1987	56	686,664	124,058	810,722	1,206
1986	73	1,009,971	198,306	1,208,277	1,379
1985	60	775,114	128,029	903,143	1,254
1984	56	593,489	93,929	687,418	1,023
1983	54	534,099	80,083	614,182	948
1982	66	666,476	113,982	780,458	985
1981	60	520,405	99,379	619,784	861
1980	58	484,025	81,653	565,678	813
1979	28	209,796	42,336	252,132	750
1978	26	210,066	66,935	277,001	888
1977 & Prior	290	1,820,941	446,404	2,267,345	652
Totals	2,016	\$30,085,090	\$5,079,509	\$35,164,599	\$1,454



## Schedule of Retired Members by Type of Benefit

Amount of Monthly Benefit	Number of Rets.	Ret. Type 1*	Ret. Type 2*	Ret. Type 3*
\$1-\$100				
101-200	10		1	9
201-300	21	2	3	16
301-400	28	7	1	20
401-500	27	6	1	20
501-600	101	24	3	74
601-700	101	43	10	48
701-800	109	48	14	47
801-900	149	67	13	69
901-1,000	134	77	11	46
Over 1,000	1,336	1,060	23	253
Totals	2,016	1,334	80	602

## Benefits Payable September 30, 2011

<u>\*Type of Retirement</u>
1 – Retirement for Age & Service
2 – Disability Retirement
3 – Survivor Payment



#### **MISSISSIPPI MUNICIPAL RETIREMENT SYSTEMS**

# Retirant and Beneficiary Information September 30, 2011 Tabulated by Attained Ages

	Re	Service tirement	Dis Reti	sability irement	Survivors and Beneficiaries		Total	
Attained Age	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits	No.	Annual Benefits
Under								
20					3	\$37,180	3	\$37,180
20 – 24								
25 – 29								
30 – 34								
35 – 39								
40 – 44					2	30,569	2	30,569
45 – 49	7	\$164,086			2	37,182	9	201,268
50 – 54	29	740,178			8	118,316	37	858,494
55 – 59	104	2,497,429	9	\$119,900	27	531,347	140	3,148,676
60 – 64	322	7,189,112	16	203,028	54	914,081	392	8,306,221
65 – 69	265	5,427,714	8	102,346	85	1,260,182	358	6,790,242
70 – 74	238	4,496,475	25	277,231	114	1,692,108	377	6,465,814
75 – 79	192	3,311,356	8	77,679	104	1,359,504	304	4,748,539
80 – 84	118	1,761,078	6	42,077	105	1,135,991	229	2,939,146
85 – 89	45	568,757	5	46,540	62	568,442	112	1,183,739
90 – 94	11	113,496	2	14,571	30	223,224	43	351,291
95					2	21,930	2	21.930
96	1	8.082			1	6.402	2	14.484
97	2	36,772				-, -	2	36,772
98			1	10,230			1	10,230
99								·
100.8								
Over					3	20,004	3	20,004
Totals	1,334	\$26,314,535	80	\$893,602	602	\$7,956,462	2,016	\$35,164,599



## **MISSISSIPPI MUNICIPAL RETIREMENT SYSTEMS**

#### Total Active Members as of September 30, 2011 Tabulated by Attained Ages and Years of Service

	Years of Service to Valuation Date							٦	<b>Fotals</b>
Attained Age	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						4		4	\$196,986
50 – 54						2		2	112,094
55 – 59							6	6	386,663
60 & Over							13	13	661,116
Totals						6	19	25	\$1,356,859

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

 Age:
 59.7 years

 Service:
 36.2 years

 Annual Pay:
 \$54,274



## 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 September 30, 2011 is shown below.

		\$ Thousands
(1)	UEL* as of 9/30/10	\$197,321.7
(2)	Actual employer contributions**	22,335.1
(3)	Interest accrual: [(1) x .08] – [(2) x .0392]	14,910.2
(4)	Expected UEL before changes: $(1) - (2) + (3)$	189,896.8
(5)	Change due to plan amendments	0.0
(6)	Change due to new actuarial assumptions or methods	(97.0)
(7)	Expected UEL after changes: $(4) + (5) + (6)$	189,799.8
(8)	Actual UEL as of 9/30/11	196,349.2
(9)	Gain/(loss): (7) – (8)	(6,549.4)

\*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 9/30/11	\$ Gain (or Loss) For Year Ending 9/30/10
Age & Service Retirements. If members retire at older ages, there is a gain. If younger ages, a loss.	\$ 403.8	\$ 117.4
<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.	10.1	14.0
Withdrawal From Employment. If more liabilities are released by withdrawals than assumed, there is a gain. If smaller releases, a loss.	0.0	0.0
<b>Pay Increases.</b> If there are smaller pay increases than assumed, there is a gain. If greater increases, a loss.	329.8	397.6
<b>Investment Income.</b> If there is greater investment income than assumed, there is a gain. If less income, a loss.	(8,768.7)	(15,274.1)
<b>Death After Retirement.</b> If retirants live longer than assumed, there is a loss. If not as long, a gain.	1,543.9	1,451.3
<b>Other.</b> Miscellaneous gains and losses resulting from data adjustments, COLAs, etc.	<u>(68.3)</u>	<u>145.0</u>
Gain (or Loss) During Year From Financial Experience	\$(6,549.4)	\$(13,148.8)
<b>Non-Recurring Items.</b> Adjustments for plan amendments, assumption changes, or method changes.	<u>97.0</u>	<u>(278.7)</u>
Composite Gain (or Loss) During Year	\$(6,452.4)	\$(13,427.5)



## SCHEDULE F

### GLOSSARY

<u>Actuarial Accrued Liability.</u> 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".

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

<u>Actuarial Assumptions.</u> 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.

<u>Actuarial Cost Method.</u> 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".

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

<u>Actuarial Present Value.</u> 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.

<u>Amortization.</u> 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.

<u>Experience Gain (Loss)</u>. 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.

<u>Normal Cost.</u> 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.

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

<u>Unfunded Actuarial Accrued Liability.</u> The difference between the actuarial accrued liability and valuation assets. Sometimes referred to as "unfunded accrued liability".

<u>Valuation Assets.</u> 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



Year	Value of	MVA						MVA	Year
Beginning <u>Oct 1</u>	<u>Assessed</u> <u>Property</u>	Balance <u>October 1</u>	Millage <u>Rate</u>	<b>Contributions</b>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	Balance <u>Sept 30</u>	Ending Sept 30
2011	\$535,701,881	\$10,309,583	0.00238	\$1,339,932	\$2,194,879	\$642,775	(\$212,172)	\$10,097,411	2012
2012	535,701,881	10,097,411	0.00238	1,282,693	2,220,564	626,331	(311,540)	9,785,871	2013
2013	535,701,881	9,785,871	0.00238	1,281,356	2,239,517	605,432	(352,729)	9,433,142	2014
2014	535,701,881	9,433,142	0.00238	1,280,247	2,252,119	582,066	(389, 806)	9,043,336	2015
2015	535,701,881	9,043,336	0.00238	1,279,329	2,258,701	556,488	(422, 884)	8,620,452	2016
2016	535,701,881	8,620,452	0.00238	1,276,529	2,275,890	528,361	(471,000)	8,149,452	2017
2017	535,701,881	8,149,452	0.00238	1,274,970	2,278,432	497,615	(505, 847)	7,643,605	2018
2018	535,701,881	7,643,605	0.00238	1,274,970	2,264,043	465,196	(523,877)	7,119,728	2019
2019	535,701,881	7,119,728	0.00238	1,274,970	2,245,411	431,740	(538, 701)	6,581,027	2020
2020	535,701,881	6,581,027	0.00238	1,274,970	2,222,813	397,447	(550,396)	6,030,631	2021
2025	535,701,881	3,884,225	0.00238	1,274,970	1,971,068	230,208	(465,890)	3,418,335	2026
2030	535,701,881	2,015,508	0.00238	1,274,970	1,606,307	120,409	(210,928)	1,804,580	2031
2035	535,701,881	1,674,427	0.00227	1,213,705	1,213,705	108,838	108,838	1,783,265	2036
2040	535,701,881	722,985	0.00156	536,545	835,595	37,428	(261,622)	461,363	2041
2045	535,701,881	430,847	0.00097	520,673	520,673	28,005	28,005	458,852	2046
2050	535,701,881	533,453	0.00056	183,292	297,391	31,025	(83,074)	450,379	2051
2055	535,701,881	58,242	0.00032	227,699	170,194	5,625	63,130	121,372	2056
2060	535,701,881	215,390	0.00020	9,195	107,873	10,844	(87,834)	127,556	2061





₩₩~<u>~</u>~₩₩₩₩~~₩₩₩ 2056 2056 2051 Cash Flow 2051 2046 2046 - Benefit Payments g Investment Income 2041 2041 e **Based on Valuation Assumptions** Year Beginning October 1 **Projected Contributions and Benefits** Year Beginning October 1 Net Change in Asset Values 2036 2036 The D. D. D. D. - Contributions 2031 2031 Contributions Net of Benefits 2026 2026 1 2021 2021 . 1 2016 • 2016 2011 2011 (\$800,000) (\$1,000,000) (\$1,200,000) (\$200,000) (\$400,000) \$800,000 \$600,000 \$400,000 \$200,000 (\$600,000) **S**0 So \$1,000,000 \$2,500,000 \$1,500,000 \$500,000 \$2,000,000

Mississippi Municipal Retirement Systems City of Biloxi

50 Year Cash Flow Projection

al Retirement Systems	Clarksdale
<b>Municip</b>	City of C
Mississippi	



alue of ssessed	MVA Balance	Millage	Contributions	Benefit Payments	Investment Income	Cash Flow	MVA Balance Sent 30	Year Ending
		0 00610	SUDDUDINO	2002 272	277 681	(283 545)	C1 100 807	2017
	1 190 897	0.00619	513 148	657 871	100'''''	(210, 200)	1 118 953	2013
	1.118.953	0.00619	512.640	654.896	68,181	(74,075)	1,044,878	2014
	1,044,878	0.00619	512,220	650,189	63,504	(74,465)	970,413	2015
	970,413	0.00619	511,872	643,856	58,855	(73, 129)	897,284	2016
	897,284	0.00619	510,220	645,798	53,987	(81, 591)	815,693	2017
	815,693	0.00619	510,220	634,274	49,052	(75,002)	740,691	2018
	740,691	0.00619	510,220	621,728	44,578	(66,930)	673,761	2019
	673,761	0.00619	510,220	608,174	40,661	(57, 293)	616,468	2020
	616,468	0.00619	510,220	593,650	37,402	(46,028)	570,440	2021
	532,795	0.00618	509,014	509,014	34,632	34,632	567,427	2026
	664,402	0.00498	283,850	410,793	39,125	(87,818)	576,584	2031
	365,239	0.00368	303,096	303,096	23,741	23,741	388,980	2036
	250,196	0.00233	79,269	192,087	12,654	(100,164)	150,032	2041
	103,190	0.00117	115,200	96,248	7,314	26,266	129,456	2046
	38,979	0.00044	0	35,915	1,385	(34,530)	4,449	2051
	36,151	0.00012	19,301	9,829	2,653	12,125	48,276	2056
	39,597	0.00002	0	1,947	2,512	565	40,162	2061





2056 2056 2051 DCash Flow 2051 2046 2046 - · Benefit Payments Investment Income 2041 2041 Based on Valuation Assumptions **Projected Contributions and Benefits** Year Beginning October 1 50 Year Cash Flow Projection Year Beginning October 1 Net Change in Asset Values 2036 2036 - Contributions 2031 2031 Contributions Net of Benefits 2026 2026 2021 . 2021 2016 2016 11:1 2011 2011 \$700,000 \$600,000 \$500,000 \$300,000 \$200,000 \$100,000 \$0 \$400,000 \$50,000 (\$50,000) \$100,000 (\$100,000) (\$150,000) (\$200,000) So

Mississippi Municipal Retirement Systems City of Clarksdale



Value of Assessed <u>Property</u>		MVA Balance <u>October 1</u>	Millage <u>Rate</u>	Contributions	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	MVA Balance <u>Sept 30</u>	Year Ending Sept 30
89,540,517 \$7,753,096 0.0	\$7,753,096 0.0	0.0	0139	\$285,073	\$667,109	\$491,731	\$109,695	\$7,862,791	2012
189,540,517 7,862,791 0.00	7,862,791 0.00	0.00	139	276,421	766,147	495,416	5,690	7,868,481	2013
189,540,517 7,868,481 0.00	7,868,481 0.00	0.00	139	270,813	819,969	493,885	(55,271)	7,813,210	2014
189,540,517 7,813,210 0.00	7,813,210 0.00	0.00	139	268,431	850,572	489,237	(92,904)	7,720,306	2015
189,540,517 7,720,306 0.00	7,720,306 0.00	0.00	139	266,935	872,295	482,455	(122,905)	7,597,401	2016
189,540,517 7,597,401 0.00	7,597,401 0.00	0.00	139	265,905	886,400	473,982	(146,513)	7,450,888	2017
189,540,517 7,450,888 0.00	7,450,888 0.00	0.00	139	265,193	894,705	464,171	(165,341)	7,285,547	2018
189,540,517 7,285,547 0.00	7,285,547 0.00	0.0(	0139	264,897	897,986	453,309	(179, 780)	7,105,767	2019
189,540,517 7,105,767 0.00	7,105,767 0.00	0.00	139	264,651	898,077	441,613	(191, 813)	6,913,954	2020
189,540,517 6,913,954 0.00	6,913,954 0.00	0.00	139	264,446	896,852	429,177	(203, 229)	6,710,725	2021
189,540,517 5,794,106 0.00	5,794,106 0.00	0.0(	139	263,842	873,410	357,118	(252,450)	5,541,656	2026
189,540,517 4,450,701 0.00	4,450,701 0.00	0.0	0139	263,461	820,093	271,490	(285,142)	4,165,559	2031
189,540,517 3,017,507 0.00	3,017,507 0.00	0.0(	139	263,461	725,481	181,359	(280,661)	2,736,846	2036
189,540,517 1,696,529 0.00	1,696,529 0.00	0.00	139	263,461	592,558	99,747	(229,350)	1,467,179	2041
189,540,517 730,479 0.00	730,479 0.00	0.0(	0139	263,461	436,106	41,959	(130,686)	599,793	2046
189,540,517 331,460 0.00	331,460 0.00	0.0	0139	263,461	282,238	20,944	2,167	333,627	2051
189,540,517 213,688 0.0	213,688 0.0	0.0	0080	52,728	151,799	10,721	(88,350)	125,338	2056
189,540,517 72,583 0.00	72,583 0.00	0.0	0035	80,128	65,972	5,171	19,327	91,910	2061







Mississippi Municipal Retirement Systems City of Clinton

50 Year Cash Flow Projection



Year Seginning	Value of Assessed	MVA Balance	Millage		Benefit	Investment	Cash	MVA Balance	Year Ending
<u>Oct 1</u>	Property	October 1	Rate	<b>Contributions</b>	<u>Payments</u>	Income	Flow	Sept 30	Sept 30
2011	\$188,555,406	\$1,446,591	0.00582	\$1,109,728	\$1,252,726	\$89,454	(\$53,544)	\$1,393,047	2012
2012	188,555,406	1,393,047	0.00582	1,101,797	1,248,912	85,842	(61, 273)	1,331,774	2013
2013	188,555,406	1,331,774	0.00582	1,101,030	1,242,077	82,053	(58,994)	1,272,780	2014
2014	188,555,406	1,272,780	0.00582	1,097,392	1,253,976	77,722	(78,862)	1,193,918	2015
2015	188,555,406	1,193,918	0.00582	1,097,392	1,237,153	73,134	(66,627)	1,127,291	2016
2016	188,555,406	1,127,291	0.00582	1,097,392	1,218,380	69,404	(51, 584)	1,075,707	2017
2017	188,555,406	1,075,707	0.00582	1,097,392	1,196,373	66,755	(32, 226)	1,043,481	2018
2018	188,555,406	1,043,481	0.00582	1,097,392	1,171,460	65,457	(8,611)	1,034,870	2019
2019	188,555,406	1,034,870	0.00582	1,097,392	1,144,624	65,756	18,524	1,053,394	2020
2020	188,555,406	1,053,394	0.00582	1,097,392	1,115,850	67,880	49,422	1,102,816	2021
2025	188,555,406	1,418,735	0.00500	822,683	941,893	88,404	(30,806)	1,387,929	2026
2030	188,555,406	813,352	0.00387	728,874	728,874	52,868	52,868	866,220	2031
2035	188,555,406	803,939	0.00267	230,208	502,580	43,543	(228,829)	575,110	2036
2040	188,555,406	265,689	0.00157	390,834	296,335	20,293	114,792	380,481	2041
2045	188,555,406	242,454	0.00076	0	143,614	11,166	(132,448)	110,006	2046
2050	188,555,406	63,897	0.00031	147,793	58,962	6,995	95,826	159,723	2051
2055	188,555,406	131,555	0.00013	0	25,043	7,750	(17,293)	114,262	2056
2060	188,555,406	62,282	0.00008	0	14,370	3,589	(10,781)	51,501	2061





លាលាលាលាញា 2056 2056 Cash Flow 2051 2051 E 2046 2046 ---- Benefit Payments Investment Income 2041 2041 Year Beginning October 1 **Based on Valuation Assumptions Projected Contributions and Benefits** 50 Year Cash Flow Projection Year Beginning October 1 Net Change in Asset Values 2036 2036 - Contributions 2031 2031 Contributions Net of Benefits 2026 2026 2021 2021 2016 2016 2011 2011 \$50,000 (\$50,000) (\$100,000)(\$150,000)(\$200,000) (\$250,000) (\$300,000) \$150,000 \$0 \$100,000 \$400,000 \$200,000 \$1,400,000 \$1,200,000 \$1,000,000 \$0 \$600,000 \$800,000

Mississippi Municipal Retirement Systems City of Columbus



	17-1- E								Vasa
ar nning <u>t 1</u>	value of Assessed <u>Property</u>	MVA Balance <u>October 1</u>	Millage <u>Rate</u>	<b>Contributions</b>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	INLYA Balance <u>Sept 30</u>	rear Ending <u>Sept 30</u>
11	\$187,948,497	\$3,828,595	0.00328	\$610,883	\$1,052,725	\$234,725	(\$207,117)	\$3,621,478	2012
12	187,948,497	3,621,478	0.00328	616,471	1,045,001	221,688	(206,842)	3,414,636	2013
13	187,948,497	3,414,636	0.00328	616,471	1,036,018	208,531	(211,016)	3,203,620	2014
14	187,948,497	3,203,620	0.00328	616,471	1,025,661	195,146	(214,044)	2,989,576	2015
15	187,948,497	2,989,576	0.00328	616,471	1,013,826	181,612	(215, 743)	2,773,833	2016
16	187,948,497	2,773,833	0.00328	616,471	1,000,427	168,017	(215, 939)	2,557,894	2017
17	187,948,497	2,557,894	0.00328	616,471	985,406	154,461	(214, 474)	2,343,420	2018
18	187,948,497	2,343,420	0.00328	616,471	968,722	141,054	(211,197)	2,132,223	2019
19	187,948,497	2,132,223	0.00328	616,471	950,352	127,914	(205,967)	1,926,256	2020
20	187,948,497	1,926,256	0.00328	616,471	930,288	115,168	(198,649)	1,727,607	2021
25	187,948,497	1,051,853	0.00328	616,471	805,740	62,316	(126,953)	924,900	2026
30	187,948,497	664,966	0.00328	616,471	647,770	42,222	10,923	675,889	2031
35	187,948,497	790,051	0.00252	316,826	473,067	46,355	(109,886)	680,165	2036
40	187,948,497	134,618	0.00160	342,796	301,160	10,082	51,718	186,336	2041
45	187,948,497	340,016	0.00085	69,461	159,308	19,227	(70,620)	269,396	2046
50	187,948,497	(35,064)	0.00037	123,315	69,466	(557)	53,292	18,228	2051
55	187,948,497	133,211	0.00014	0	25,836	7,832	(18,004)	115,207	2056
160	187,948,497	76,628	0.00005	0	8,572	4,707	(3,865)	72,763	2061







Mississippi Municipal Retirement Systems City of Greenville





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Value of	MVA						MVA	Year
<u>Assessed</u> <u>Property</u>	Balance <u>October 1</u>	Millage <u>Rate</u>	<u>Contributions</u>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	Balance <u>Sept 30</u>	Ending <u>Sept 30</u>
\$108,478,499	\$3,095,729	0.00470	\$511,467	\$819,856	\$191,358	(\$117,031)	\$2,978,698	2012
108,478,499	2,978,698	0.00470	512,416	844,154	183,004	(148,734)	2,829,964	2013
108,478,499	2,829,964	0.00470	511,969	841,821	173,396	(156,456)	2,673,508	2014
108,478,499	2,673,508	0.00470	509,849	850,115	162,893	(177, 373)	2,496,135	2015
108,478,499	2,496,135	0.00470	509,849	841,140	151,651	(179, 640)	2,316,495	2016
108,478,499	2,316,495	0.00470	509,849	830,846	140,304	(180,693)	2,135,802	2017
108,478,499	2,135,802	0.00470	509,849	819,178	128,932	(180,397)	1,955,405	2018
108,478,499	1,955,405	0.00470	509,849	806,071	117,626	(178, 596)	1,776,809	2019
108,478,499	1,776,809	0.00470	509,849	791,460	106,484	(175, 127)	1,601,682	2020
108,478,499	1,601,682	0.00470	509,849	775,283	95,619	(169,815)	1,431,867	2021
108,478,499	847,975	0.00470	509,849	670,222	49,988	(110,385)	737,590	2026
108,478,499	517,108	0.00470	509,849	528,596	33,012	14,265	531,373	2031
108,478,499	620,941	0.00338	241,824	366,215	36,382	(88,009)	532,932	2036
108,478,499	88,546	0.00198	245,694	214,264	6,761	38,191	126,737	2041
108,478,499	238,887	0.00097	37,884	104,960	13,382	(53,694)	185,193	2046
108,478,499	(29,972)	0.00044	86,623	47,362	(692)	38,569	8,597	2051
108,478,499	94,643	0.00021	0	23,247	5,408	(17,839)	76,804	2056
108,478,499	20,056	0.00011	0	12,389	206	(11,482)	8,574	2061







Mississippi Municipal Retirement Systems City of Greenwood

Mississippi Municipal Retirement Systems City of Gulfport
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MVA Year Balance Ending Sent 30 Sent 30	\$9,990,321 2012	9,734,135 2013	9,413,226 2014	9,045,322 2015	8,650,761 2016	8,239,145 2017	7,794,718 2018	7,352,663 2019	6,894,970 2020	6,436,537 2021	4,225,244 2026	2,402,018 2031		1,392,960 2036	1,392,960 2036 1,430,993 2041	1,392,960 2036 1,430,993 2041 255,635 2046	1,392,960 2036 1,430,993 2041 255,635 2046 627,793 2051	1,392,960 2036 1,430,993 2041 255,635 2046 627,793 2051 37,148 2056
Cash Flow	(\$201,316)	(256,186)	(320,909)	(367,904)	(394,561)	(411, 616)	(444,427)	(442,055)	(457,693)	(458, 433)	(423,086)	(314,512)		(112,699)	(112,699) (55,776)	(112,699) (55,776) (16,714)	(112,699) (55,776) (16,714) (179,083)	(112,699) (55,776) (16,714) (179,083) 130,280
Investment Income	\$635,682	621,301	603,159	581,490	557,491	532,111	505,168	477,250	448,922	420,071	279,662	161,352		91,341	91,341 91,916	91,341 91,916 16,636	91,341 91,916 16,636 45,270	91,341 91,916 16,636 45,270 (1,828)
Benefit Pavments	\$1,833,335	1,884,441	1,929,469	1,953,508	1,955,098	1,945,889	1,949,146	1,918,578	1,904,572	1,876,461	1,700,705	1,473,821		1,201,997	1,201,997 896,003	1,201,997 896,003 586,289	1,201,997 896,003 586,289 329,215	1,201,997 896,003 586,289 329,215 171,139
Contributions	\$996,337	1,006,954	1,005,401	1,004,114	1,003,046	1,002,162	999,551	999,273	997,957	997,957	997,957	997,957	L30 L00	106,166	748,311	748,311 552,939	748,311 552,939 104,862	748,311 552,939 104,862 303,247
Millage Rate	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138	0.00138		0.00124	0.00124	0.00124 0.00081 0.00046	0.00124 0.00081 0.00046 0.00024
MVA Balance October 1	\$10,191,637	9,990,321	9,734,135	9,413,226	9,045,322	8,650,761	8,239,145	7,794,718	7,352,663	6,894,970	4,648,330	2,716,530	1.505.659		1,486,769	1,486,769 272,349	1,486,769 272,349 806,876	1,486,769 272,349 806,876 (93,132)
Value of Assessed Property	\$723,157,372	723,157,372	723,157,372	723,157,372	723,157,372	723,157,372	723,157,372	723,157,372	723,157,372	723,157,372	723,157,372	723,157,372	723 157 372		723,157,372	723,157,372 723,157,372	723,157,372 723,157,372 723,157,372	723,157,372 723,157,372 723,157,372 723,157,372
Year Beginning Oct 1	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2025	2030	2035		2040	2040 2045	2040 2045 2050	2040 2045 2050 2055





2056 2056 □ Cash Flow 2051 2051 2046 2046 ---- Benefit Payments Investment Income 2041 2041 Year Beginning October 1 **Based on Valuation Assumptions Projected Contributions and Benefits** 50 Year Cash Flow Projection Year Beginning October 1 Net Change in Asset Values 2036 2036 2031 2031 Contributions Net of Benefits 2026 2026 1 2021 2021 2016 2016 2011 2011 (\$1,000,000) (\$1,200,000) (\$200,000) (\$400,000) (\$600,000) \$600,000 \$400,000 \$200,000 (\$800,000) \$800,000  $\mathbf{s}_0$ \$0 \$500,000 \$2,500,000 \$2,000,000 \$1,000,000 \$1,500,000

Mississippi Municipal Retirement Systems City of Gulfport





Voor	Wolno of								Vacu
Beginning Oct 1	value of Assessed <u>Property</u>	Balance October 1	Millage <u>Rate</u>	<u>Contributions</u>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	MVA Balance <u>Sept 30</u>	r car Ending Sept 30
2011	\$404,544,340	\$21,632,243	0.00382	\$1,621,805	\$3,291,357	\$1,352,690	(\$316,862)	\$21,315,381	2012
2012	404,544,340	21,315,381	0.00382	1,559,637	3,335,627	1,328,689	(447,301)	20,868,080	2013
2013	404,544,340	20,868,080	0.00382	1,557,419	3,371,521	1,298,395	(515,707)	20,352,373	2014
2014	404,544,340	20,352,373	0.00382	1,555,020	3,398,837	1,263,924	(579,893)	19,772,480	2015
2015	404,544,340	19,772,480	0.00382	1,550,695	3,424,248	1,225,279	(648, 274)	19,124,206	2016
2016	404,544,340	19,124,206	0.00382	1,549,215	3,436,791	1,182,693	(704, 883)	18,419,323	2017
2017	404,544,340	18,419,323	0.00382	1,548,172	3,439,228	1,136,764	(754, 292)	17,665,031	2018
2018	404,544,340	17,665,031	0.00382	1,547,432	3,411,945	1,088,584	(775, 929)	16,889,102	2019
2019	404,544,340	16,889,102	0.00382	1,546,965	3,394,009	1,038,708	(808, 336)	16,080,766	2020
2020	404,544,340	16,080,766	0.00382	1,546,687	3,367,203	987,014	(833,502)	15,247,264	2021
2025	404,544,340	11,744,232	0.00382	1,545,466	3,145,873	712,181	(888,226)	10,856,006	2026
2030	404,544,340	7,420,485	0.00382	1,545,359	2,786,825	442,619	(798,847)	6,621,638	2031
2035	404,544,340	3,862,867	0.00382	1,545,359	2,318,084	226,368	(546,357)	3,316,510	2036
2040	404,544,340	1,914,405	0.00382	1,545,359	1,781,324	116,888	(119,077)	1,795,328	2041
2045	404,544,340	1,965,339	0.00304	876,028	1,228,040	116,487	(235,525)	1,729,814	2046
2050	404,544,340	479,536	0.00179	724,256	724,256	31,170	31,170	510,706	2051
2055	404,544,340	603,370	0.00086	230,455	346,617	35,503	(80,659)	522,711	2056
2060	404,544,340	(20,669)	0.00033	171,313	134,623	(170)	36,520	15,851	2061







Mississippi Municipal Retirement Systems City of Hattiesburg



Year	Value of	MVA						MVA	Year
Beginning	Assessed	Balance	Millage		Benefit	Investment	Cash	Balance	Ending
<u>Oct 1</u>	<u>Property</u>	October 1	Rate	<b>Contributions</b>	<u>Payments</u>	Income	Flow	Sept 30	Sept 30
2011	\$1,197,937,482	\$64,862,742	0.00489	\$5,766,872	\$13,034,250	\$3,983,607	(\$3,283,771)	\$61,578,971	2012
2012	1,197,937,482	61,578,971	0.00489	5,861,342	12,934,342	3,776,379	(3, 296, 621)	58,282,350	2013
2013	1,197,937,482	58,282,350	0.00489	5,857,914	12,826,671	3,565,434	(3,403,323)	54,879,027	2014
2014	1,197,937,482	54,879,027	0.00489	5,857,914	12,673,244	3,349,125	(3,466,205)	51,412,822	2015
2015	1,197,937,482	51,412,822	0.00489	5,857,914	12,498,350	3,129,417	(3,511,019)	47,901,803	2016
2016	1,197,937,482	47,901,803	0.00489	5,857,914	12,300,955	2,907,515	(3, 535, 526)	44,366,277	2017
2017	1,197,937,482	44,366,277	0.00489	5,857,914	12,079,967	2,684,775	(3, 537, 278)	40,828,999	2018
2018	1,197,937,482	40,828,999	0.00489	5,857,914	11,836,769	2,462,631	(3,516,224)	37,312,775	2019
2019	1,197,937,482	37,312,775	0.00489	5,857,914	11,570,446	2,242,596	(3,469,936)	33,842,839	2020
2020	1,197,937,482	33,842,839	0.00489	5,857,914	11,281,867	2,026,281	(3, 397, 672)	30,445,167	2021
2025	1,197,937,482	18,136,017	0.00489	5,857,914	9,530,101	1,061,374	(2,610,813)	15,525,204	2026
2030	1,197,937,482	7,836,828	0.00489	5,857,914	7,408,315	459,799	(1,090,602)	6,746,226	2031
2035	1,197,937,482	6,273,813	0.00436	5,223,016	5,223,016	407,798	407,798	6,681,611	2036
2040	1,197,937,482	4,252,537	0.00274	1,331,409	3,286,603	213,871	(1,741,323)	2,511,214	2041
2045	1,197,937,482	1,768,153	0.00152	2,195,490	1,826,232	126,742	496,000	2,264,153	2046
2050	1,197,937,482	1,233,168	0.00079	0	941,810	50,029	(891,781)	341,387	2051
2055	1,197,937,482	1,026,208	0.00042	760,136	505,578	74,846	329,404	1,355,612	2056
2060	1,197,937,482	295,032	0.00025	0	300,495	9,565	(290,930)	4,102	2061





2056 2056 D Cash Flow 2051 2051 2046 2046 - · Benefit Payments Investment Income 2041 2041 Year Beginning October 1 **Based on Valuation Assumptions Projected Contributions and Benefits** 50 Year Cash Flow Projection Year Beginning October 1 ՄՈՆԵԴ. <sup>ա, ա</sup>, Ա, Ո Net Change in Asset Values 2036 2036 2031 2031 Contributions Net of Benefits 2026 2026 2021 2021 1 2016 3 2016 -3 2011 2011 (\$6,000,000) \$14,000,000 \$12,000,000 \$10,000,000 (\$4,000,000) (\$\$,000,000) \$4,000,000 \$2,000,000 \$2,000,000 20 (\$2,000,000) \$6,000,000 \$4,000,000 S0 \$6,000,000 \$8,000,000

Mississippi Municipal Retirement Systems City of Jackson

<b>Retirement Systems</b>	Laurel
Mississippi Municipal	City of ]



Value of	MVA						MVA	Year
	Balance <u>October 1</u>	Millage <u>Rate</u>	<b>Contributions</b>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	Balance <u>Sept 30</u>	Ending Sept 30
244	\$3,435,194	0.00521	\$816,845	\$1,234,111	\$209,940	(\$207,326)	\$3,227,868	2012
44	3,227,868	0.00521	863,996	1,224,582	198,277	(162,309)	3,065,559	2013
44	3,065,559	0.00521	863,996	1,235,260	187,385	(183, 879)	2,881,680	2014
44	2,881,680	0.00521	863,996	1,244,402	175,141	(205, 265)	2,676,415	2015
244	2,676,415	0.00521	863,996	1,250,919	161,590	(225, 333)	2,451,082	2016
244	2,451,082	0.00521	863,996	1,233,792	147,491	(222, 305)	2,228,777	2017
244	2,228,777	0.00521	863,996	1,213,567	133,688	(215, 883)	2,012,894	2018
244	2,012,894	0.00521	863,996	1,191,130	120,374	(206, 760)	1,806,134	2019
,244	1,806,134	0.00521	863,996	1,166,231	107,731	(194,504)	1,611,630	2020
244	1,611,630	0.00521	863,996	1,139,237	95,951	(179, 290)	1,432,340	2021
,244	929,653	0.00521	863,996	976,513	56,828	(55,689)	873,964	2026
1,244	987,731	0.00469	778,454	778,454	64,202	64,202	1,051,933	2031
1,244	686,967	0.00341	269,075	564,922	35,189	(260,658)	426,309	2036
1,244	350,427	0.00220	426,642	364,410	24,768	87,000	437,427	2041
t,244	272,858	0.00127	46,817	210,036	12,515	(150,704)	122,154	2046
4,244	165,272	0.00073	190,587	120,941	12,971	82,617	247,889	2051
1,244	37,738	0.00049	24,489	81,445	631	(56,325)	(18,587)	2056
,244	148,409	0.00037	51,697	62,098	9,314	(1,087)	147,322	2061





0000 m 2056 Cash Flow 2051 2011 2013 2015 2017 2019 2021 2023 2025 2027 2029 2031 2033 2035 2037 2039 2041 2043 2045 2047 2049 2046 ---- Benefit Payments Investment Income 2041 u u u Year Beginning October 1 **Projected Contributions and Benefits** Year Beginning October 1 Net Change in Asset Values 2036 - Contributions 2031 Contributions Net of Benefits 2026 2021 2016 2011 (\$300,000) \$100,000 \$0 (\$200,000) (\$400,000)(\$500,000) (\$100,000)\$400,000 \$200,000 \$1,400,000 \$1,200,000 \$1,000,000 \$800,000 \$0 \$300,000 \$200,000 \$600,000

Mississippi Municipal Retirement Systems City of Laurel

50 Year Cash Flow Projection Based on Valuation Assumptions



Value of	MVA						MVA	Year
Assessed Property	Balance <u>October 1</u>	Millage <u>Rate</u>	<b>Contributions</b>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	Balance <u>Sept 30</u>	Ending <u>Sept 30</u>
\$94,736,120	\$1,118,773	0.00230	\$221,077	\$345,735	\$68,733	(\$55,925)	\$1,062,848	2012
94,736,120	1,062,848	0.00230	217,893	350,401	64,846	(67,662)	995,186	2013
94,736,120	995,186	0.00230	217,893	346,631	60,569	(68, 169)	927,017	2014
94,736,120	927,017	0.00230	217,893	342,233	56,279	(68,061)	858,956	2015
94,736,120	858,956	0.00230	217,893	337,330	52,012	(67,425)	791,531	2016
94,736,120	791,531	0.00230	217,893	331,934	47,802	(66,239)	725,292	2017
94,736,120	725,292	0.00230	217,893	326,072	43,683	(64, 496)	660,796	2018
94,736,120	660,796	0.00230	217,893	319,772	39,693	(62, 186)	598,610	2019
94,736,120	598,610	0.00230	217,893	313,072	35,865	(59, 314)	539,296	2020
94,736,120	539,296	0.00230	217,893	306,011	32,235	(55, 883)	483,413	2021
94,736,120	304,933	0.00230	217,893	266,899	18,253	(30,753)	274,180	2026
94,736,120	223,628	0.00230	217,893	223,291	14,363	8,965	232,593	2031
94,736,120	273,966	0.00182	122,036	172,002	16,209	(33,757)	240,209	2036
94,736,120	160,231	0.00119	112,794	112,794	10,415	10,415	170,646	2041
94,736,120	47,212	0.00061	24,055	57,461	2,000	(31,406)	15,806	2046
94,736,120	59,001	0.00022	14,290	20,877	3,624	(2,963)	56,038	2051
94,736,120	19,574	0.00005	0	5,093	1,109	(3,984)	15,590	2056
94,736,120	9,436	0.00001	0	758	589	(169)	9,267	2061





50 Year Cash Flow Projection Based on Valuation Assumptions







BenefitInvestmentCasContributionsPaymentsIncomeFlo\$1,802,327\$2,831,243\$513,924(\$51\$1,737,3392,779,153478,614(601,737,3392,779,153440,539(601,737,3392,779,153440,539(601,737,3392,779,153440,539(601,737,3392,730,918402,999(571,737,3392,678,895366,275(571,737,3392,678,895330,666(551,737,3392,678,895330,666(551,737,3392,63,612296,488(521,737,3392,563,612296,488(521,737,3392,563,612296,488(521,737,3392,563,612296,488(521,737,3392,563,612233,755(461,737,3392,364,287205,896(421,737,3391,977,681116,185(12	VA Benefit Investment Cas   ance Millage Benefit Investment Cas   ober I Rate Contributions Benefit Investment Cas   112,880 0.00545 \$1,802,327 \$2,831,243 \$513,924 (\$51   897,888 0.00545 \$1,737,339 2,823,618 478,614 (\$60   897,888 0.00545 \$1,737,339 2,779,153 440,539 (\$60   290,223 0.00545 \$1,737,339 2,779,153 440,539 (\$60   988,948 0.00545 \$1,737,339 2,779,153 440,539 (\$60   539,087 0.00545 \$1,737,339 2,567,895 366,275 (\$71   983,202 0.00545 \$1,737,339 2,563,612 296,4070 (\$49   388,202 0.00545 \$1,737,339 2,563,612 206,4070 (\$49   399,086 0.00545 \$1,737,339 2,563,612 206,4070 (\$49   390,0566 \$1,737,339 2,
Contributions Payments Incom   \$1,802,327 \$2,831,243 \$513, 1,737,339 \$513, 1,737,339 \$513, 2,823,618 \$478, 478, 478, 1,737,339 \$730,918 \$400, 102, 102,339 \$400, 2,678,895 \$400, 102,330 \$400, 102,330 \$400, 2,633,105 \$400, 366, 330, 366, 1,737,339 \$2,503,105 \$296, 330, 2,563,612 \$296, 206, 206, 205, 205, 205, 1,737,339 \$2,503,525 \$264, 205, 205, 205, 205, 205, \$216, 205, 205, 205,   1,737,339 2,563,612 \$296, 1,737,339 \$2,503,525 \$264, 205, 205, 205, \$205, 205, 205,   1,737,339 1,977,681 1116, \$116,	bber 1 Rate Contributions Payments Incom   412,880 0.00545 \$1,802,327 \$2,831,243 \$513,   897,888 0.00545 \$1,737,339 2,823,618 478,   897,888 0.00545 1,737,339 2,823,618 478,   290,223 0.00545 1,737,339 2,779,153 440,   588,948 0.00545 1,737,339 2,779,153 440,   588,948 0.00545 1,737,339 2,7730,918 402,   98,368 0.00545 1,737,339 2,678,895 366,   353,087 0.00545 1,737,339 2,673,895 366,   367,987 0.00545 1,737,339 2,563,612 296,   339,086 0.00545 1,737,339 2,563,612 296,   339,086 0.00545 1,737,339 2,563,612 233,   376,169 0.00545 1,737,339 2,564,287 205,   376,169 0.00545 1,737,339 2,364,287 205,
Contributions \$1,802,327 1,737,339 1,737,339 1,737,339 1,737,339 1,737,339 1,737,339 1,737,339 1,737,339 1,737,339 1,737,339 1,737,339	VA Millage   ance Millage Contributions   bber 1 Rate Contributions   112,880 0.00545 \$1,802,327   897,888 0.00545 \$1,737,339   290,223 0.00545 \$1,737,339   388,948 0.00545 \$1,737,339   983,368 0.00545 \$1,737,339   998,368 0.00545 \$1,737,339   998,368 0.00545 \$1,737,339   998,368 0.00545 \$1,737,339   998,368 0.00545 \$1,737,339   998,368 0.00545 \$1,737,339   97,987 0.00545 \$1,737,339   939,086 0.00545 \$1,737,339   939,086 0.00545 \$1,737,339   939,086 0.00545 \$1,737,339   939,086 0.00545 \$1,737,339   939,086 0.00545 \$1,737,339   939,086 0.00545 \$1,737,339   939,086 0.00545 \$1,737,339   905,743
	VA Millage   ance Millage   ober 1 Rate   412,880 0.00545   897,888 0.00545   589,948 0.00545   588,948 0.00545   998,368 0.00545   998,368 0.00545   399,368 0.00545   9139,086 0.00545   339,086 0.00545   339,086 0.00545   905,743 0.00545   905,743 0.00545
Value of Assessed N   Property Oct   Property Oct   \$318,777,866 7, 318,777,866   \$318,777,866 7, 318,777,866   \$318,777,866 6, 318,777,866   \$318,777,866 6, 318,777,866   \$318,777,866 6, 318,777,866   \$318,777,866 6, 3,318,777,866   \$318,777,866 6, 3,318,777,866   \$318,777,866 3,   \$318,777,866 3,   \$318,777,866 4,   \$318,777,866 4,   \$318,777,866 3,	







Mississippi Municipal Retirement Systems City of Meridian

nicipal Retirement Systems	ity of Natchez
Mississippi Munic	City



Year	Value of	MVA						MVA	Vear
Beginning <u>Oct 1</u>	Assessed Property	Balance October 1	Millage <u>Rate</u>	<b>Contributions</b>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	Balance Sept 30	Ending Sept 30
2011	\$115,314,119	\$2,283,801	0.00458	\$581,108	\$803,037	\$141,348	(\$80,581)	\$2,203,220	2012
2012	115,314,119	2,203,220	0.00458	530,501	799,409	134,607	(134, 301)	2,068,919	2013
2013	115,314,119	2,068,919	0.00458	530,090	793,893	126,041	(137, 762)	1,931,157	2014
2014	115,314,119	1,931,157	0.00458	529,750	786,595	117,309	(139,536)	1,791,621	2015
2015	115,314,119	1,791,621	0.00458	528,139	787,196	108,169	(150, 888)	1,640,733	2016
2016	115,314,119	1,640,733	0.00458	528,139	774,501	98,767	(147, 595)	1,493,138	2017
2017	115,314,119	1,493,138	0.00458	528,139	760,677	89,615	(142, 923)	1,350,215	2018
2018	115,314,119	1,350,215	0.00458	528,139	745,754	80,803	(136, 812)	1,213,403	2019
2019	115,314,119	1,213,403	0.00458	528,139	729,795	72,421	(129, 235)	1,084,168	2020
2020	115,314,119	1,084,168	0.00458	528,139	712,886	64,561	(120, 186)	963,982	2021
2025	115,314,119	602,392	0.00458	528,139	618,120	36,277	(53,704)	548,688	2026
2030	115,314,119	522,585	0.00446	514,155	514,155	33,968	33,968	556,553	2031
2035	115,314,119	652,631	0.00351	281,060	404,488	38,473	(84,955)	567,676	2036
2040	115,314,119	363,777	0.00255	294,373	294,373	23,646	23,646	387,423	2041
2045	115,314,119	245,413	0.00169	82,027	195,095	12,335	(100,733)	144,680	2046
2050	115,314,119	166,351	0.00105	160,624	121,202	12,074	51,496	217,847	2051
2055	115,314,119	32,218	0.00065	32,495	74,663	745	(41,423)	(9,205)	2056
2060	115,314,119	125,550	0.00038	28,001	44,108	7,646	(8,461)	117,089	2061





Mississippi Municipal Retirement Systems

City of Natchez



<b>Retirement Systems</b>	scagoula
lississippi Municipal	City of Pas



Year	Value of	MVA						MVA	Year
nning et 1	<b>Assessed</b> <b>Property</b>	Balance <u>October 1</u>	Millage <u>Rate</u>	<b>Contributions</b>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	Balance <u>Sept 30</u>	Ending Sept 30
111	\$258,275,296	\$7,484,997	0.00246	\$643,911	\$1,469,340	\$460,121	(\$365,308)	\$7,119,689	2012
12	258,275,296	7,119,689	0.00246	638,715	1,458,734	436,549	(383,470)	6,736,219	2013
13	258,275,296	6,736,219	0.00246	635,357	1,463,915	411,350	(417,208)	6,319,011	2014
14	258,275,296	6,319,011	0.00246	635,357	1,442,386	384,920	(422,109)	5,896,902	2015
15	258,275,296	5,896,902	0.00246	635,357	1,418,840	358,236	(425, 247)	5,471,655	2016
16	258,275,296	5,471,655	0.00246	635,357	1,391,917	331,456	(425, 104)	5,046,551	2017
17	258,275,296	5,046,551	0.00246	635,357	1,361,990	304,782	(421,851)	4,624,700	2018
18	258,275,296	4,624,700	0.00246	635,357	1,329,800	278,391	(416,052)	4,208,648	2019
19	258,275,296	4,208,648	0.00246	635,357	1,295,362	252,450	(407,555)	3,801,093	2020
20	258,275,296	3,801,093	0.00246	635,357	1,258,278	227,145	(395,776)	3,405,317	2021
125	258,275,296	1,999,340	0.00246	635,357	1,043,891	116,889	(291,645)	1,707,695	2026
30	258,275,296	877,324	0.00246	635,357	794,834	51,925	(107,552)	769,772	2031
35	258,275,296	782,285	0.00210	543,173	543,173	50,849	50,849	833,134	2036
140	258,275,296	257,220	0.00127	173,441	327,817	11,781	(142,595)	114,625	2041
45	258,275,296	398,476	0.00070	165,272	179,775	25,437	10,934	409,410	2046
50	258,275,296	(39,005)	0.00039	76,383	100,860	(3,318)	(27,795)	(66,800)	2051
55	258,275,296	239,772	0.00023	6,751	60,498	13,866	(39,881)	199,891	2056
09	258,275,296	44,852	0.00013	0	33,634	1,839	(31,795)	13,057	2061





Mississippi Municipal Retirement Systems

City of Pascagoula

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City of Tupelo



Voor	Value of	MVA						MIV A	Voor
can cinning Dct 1	Assessed Property	Balance October 1	Millage <u>Rate</u>	<u>Contributions</u>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	Balance Sept 30	Ending Sept 30
2011	\$426,120,432	\$6,272,648	0.00166	\$707,941	\$1,387,635	\$385,980	(\$293,714)	\$5,978,934	2012
2012	426,120,432	5,978,934	0.00166	707,360	1,378,351	367,167	(303,824)	5,675,110	2013
013	426,120,432	5,675,110	0.00166	707,360	1,367,269	347,773	(312,136)	5,362,974	2014
014	426,120,432	5,362,974	0.00166	707,360	1,354,316	327,898	(319,058)	5,043,916	2015
015	426,120,432	5,043,916	0.00166	707,360	1,339,425	307,636	(324, 429)	4,719,487	2016
016	426,120,432	4,719,487	0.00166	707,360	1,322,543	287,088	(328,095)	4,391,392	2017
017	426,120,432	4,391,392	0.00166	707,360	1,303,623	266,367	(329,896)	4,061,496	2018
018	426,120,432	4,061,496	0.00166	707,360	1,282,622	245,596	(329,666)	3,731,830	2019
019	426,120,432	3,731,830	0.00166	707,360	1,259,499	224,907	(327, 232)	3,404,598	2020
020	426,120,432	3,404,598	0.00166	707,360	1,234,223	204,445	(322,418)	3,082,180	2021
025	426,120,432	1,894,299	0.00166	707,360	1,075,365	111,358	(256,647)	1,637,652	2026
030	426,120,432	872,627	0.00166	707,360	866,957	51,615	(107,982)	764,645	2031
035	426,120,432	744,355	0.00148	628,997	628,997	48,383	48,383	792,738	2036
040	426,120,432	516,689	0.00093	168,024	395,626	26,304	(201,298)	315,391	2041
045	426,120,432	222,220	0.00050	249,336	211,364	15,659	53,631	275,851	2046
050	426,120,432	86,884	0.00024	16,259	103,323	2,862	(84,202)	2,682	2051
055	426,120,432	141,080	0.00013	74,127	53,728	9,823	30,222	171,302	2056
090	426,120,432	47,448	0.00007	0	30,737	2,101	(28,636)	18,812	2061







Mississippi Municipal Retirement Systems City of Tupelo



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

Year	Value of	MVA						MVA	Year
Beginning <u>Oct 1</u>	<b>Assessed</b> <b>Property</b>	Balance <u>October 1</u>	Millage <u>Rate</u>	<b>Contributions</b>	Benefit <u>Payments</u>	Investment <u>Income</u>	Cash <u>Flow</u>	Balance <u>Sept 30</u>	Ending Sept 30
2011	\$309,792,887	\$11,271,978	0.00318	\$999,906	\$2,063,531	\$698,655	(\$364,970)	\$10,907,008	2012
2012	309,792,887	10,907,008	0.00318	985,141	2,069,882	674,256	(410, 485)	10,496,523	2013
2013	309,792,887	10,496,523	0.00318	985,141	2,069,197	647,597	(436, 459)	10,060,064	2014
2014	309,792,887	10,060,064	0.00318	985,141	2,064,682	619,371	(460, 170)	9,599,894	2015
2015	309,792,887	9,599,894	0.00318	985,141	2,057,053	589,704	(482, 208)	9,117,686	2016
2016	309,792,887	9,117,686	0.00318	985,141	2,046,110	558,711	(502, 258)	8,615,428	2017
2017	309,792,887	8,615,428	0.00318	985,141	2,031,397	526,535	(519, 721)	8,095,707	2018
2018	309,792,887	8,095,707	0.00318	985,141	2,012,476	493,358	(533,977)	7,561,730	2019
2019	309,792,887	7,561,730	0.00318	985,141	1,988,994	459,401	(544,452)	7,017,278	2020
2020	309,792,887	7,017,278	0.00318	985,141	1,960,781	424,914	(550,726)	6,466,552	2021
2025	309,792,887	4,296,682	0.00318	985,141	1,748,097	254,879	(508,077)	3,788,605	2026
2030	309,792,887	2,062,830	0.00318	985,141	1,430,255	119,845	(325,269)	1,737,561	2031
2035	309,792,887	1,036,816	0.00318	985,141	1,048,700	65,360	1,801	1,038,617	2036
2040	309,792,887	1,204,802	0.00218	415,530	675,203	70,006	(189,667)	1,015,135	2041
2045	309,792,887	138,773	0.00123	506,946	380,055	13,079	139,970	278,743	2046
2050	309,792,887	457,115	0.00062	0	193,034	23,538	(169,496)	287,619	2051
2055	309,792,887	(27,028)	0.00031	204,637	94,908	1,753	111,482	84,454	2056
2060	309,792,887	184,184	0.00014	0	44,449	10,550	(33,899)	150,285	2061



Mississippi Municipal Retirement Systems

City of Vicksburg




Year Beginning <u>Oct 1</u>	Value of Assessed Property	MVA Balance October 1	Millage Rate	Contributions	Benefit Payments	Investment Income	Cash Flow	MVA Balance Sept 30	Year Ending Sept 30
2011	846 073 738	8576 551	0.00176	\$103 151	\$760 001	\$35 M1	(067 173)	CC3 1 277	2012
C102					101,020		(671,140)		7107
7017	40,0/3,238	228,922	0.00426	196,272	267,492	32,485	(38,/38)	496,084	2013
2013	46,073,238	496,084	0.00426	196,272	264,840	30,052	(38, 516)	457,568	2014
2014	46,073,238	457,568	0.00426	196,272	261,922	27,642	(38,008)	419,560	2015
2015	46,073,238	419,560	0.00426	196,272	258,723	25,274	(37, 177)	382,383	2016
2016	46,073,238	382,383	0.00426	196,272	255,224	22,969	(35,983)	346,400	2017
2017	46,073,238	346,400	0.00426	196,272	250,686	20,775	(33,639)	312,761	2018
2018	46,073,238	312,761	0.00426	196,272	245,826	18,744	(30, 810)	281,951	2019
2019	46,073,238	281,951	0.00426	196,272	240,627	16,908	(27, 447)	254,504	2020
2020	46,073,238	254,504	0.00426	196,272	235,074	15,302	(23,500)	231,004	2021
2025	46,073,238	189,691	0.00426	196,272	201,906	12,150	6,516	196,207	2026
2030	46,073,238	252,412	0.00349	137,723	160,661	15,673	(7,265)	245,147	2031
2035	46,073,238	128,475	0.00249	114,945	114,945	8,351	8,351	136,826	2036
2040	46,073,238	94,616	0.00154	33,514	70,896	4,954	(32,428)	62,188	2041
2045	46,073,238	35,259	0.00077	35,296	35,296	2,292	2,292	37,551	2046
2050	46,073,238	21,589	0.00028	0	12,846	992	(11,854)	9,735	2051
2055	46,073,238	3,729	0.00007	9,088	3,008	437	6,517	10,246	2056
2060	46,073,238	12,494	0.00001	0	385	800	415	12,909	2061







Mississippi Municipal Retirement Systems City of Yazoo City