

**MISSISSIPPI PREPAID AFFORDABLE COLLEGE TUITION
PROGRAM**

**ACTUARIAL VALUATION
AND REPORT**

JUNE 30, 2011





Bryan, Pendleton, Swats & McAllister, LLC
A Wells Fargo Company

September 8, 2011

Board of Directors
Mississippi Prepaid Affordable College Tuition Program
State Treasury Department
501 North West Street, Suite 1101A
Jackson, MS 39201

To the Board:

The attached report summarizes the actuarial valuation of the Mississippi Prepaid Affordable College Tuition Program ("the Program") as of June 30, 2011. The valuation compares the value of the assets of the prepaid program to the value of expected future tuition payments to beneficiaries. The following pages summarize the actuarial valuation of the trust fund as of June 30, 2011.

A comparison of the assets and liabilities of the trust fund shows that as of June 30, 2011 there remains a deficit of about \$62.0 million.

Our calculations were based on data furnished by InTuition Solutions, Inc. We have not audited the data and we cannot certify as to the accuracy or completeness of the data supplied. Our calculations are based on the actuarial valuation assumptions, chosen by the Board, as presented in this report.

The actuarial valuation summarized in this report has been performed using generally accepted actuarial principles and is based on actuarial assumptions, each of which we consider to be reasonable (taking into account the experience of the plan and reasonable future expectations). It is our opinion that the results fully and fairly disclose the actuarial position of the plan as of the valuation date. The undersigned is an actuary at BPS&M, a member of the American Academy of Actuaries, and has met the Qualification Standards of the American Academy of Actuaries to render actuarial opinions herein.

Sincerely,

Mike Brister
Fellow, Society of Actuaries
Principal

g:\6--\8--\70\2011 val\rpt11.doc

Executive Summary	1
Valuation Results.....	1
Future Cash Flows	1
Contract Sales	1
Weighted Average Tuition.....	1
Actuarial Assumptions.....	2
Yearly Comparison of Selected Plan Year Information.....	2
Funded Status.....	3
Contract Sales	4
Historic Tuition/Fee Increases	6
Sensitivity of Results to Variations in Experience.....	7
Variations in Tuition.....	7
Variations in Investment Income	7
Break Even Interest Rate	7
Break Even Inflation Rates	7
Valuation Assumptions and Methods	8
Actuarial Assumptions.....	8
Actuarial Methods	8
Appendices	10

Valuation Results

As of June 30, 2011 the Program has an unfunded liability of about \$62.0 million. In other words, the value of expected liabilities of the trust exceeds the value of assets, including the value of future payments by contract purchasers, by \$62.0 million. The liability amounts are based on actuarial assumptions chosen by the Board. The Program's records administrator, InTuition Solutions, Inc., provided us with information relating to contracts in place as of June 30, 2011. Program staff provided us with information relating to assets and investment returns.

As shown in Appendix A, on a funded percentage basis, the plan is 83.3% funded. This compares to a funded percentage of 75.4% as of June 30, 2010. This increase in the funded percentage is due to higher than assumed return on assets. The return on assets was 21.7% (higher than the assumed 7.8%). The actuarial gain from higher than expected investment returns was offset by higher than expected tuition inflation. The increase in weighted average tuition for four-year universities and colleges was 7.0% (above the assumed 6.5%). The increase in weighted average tuition for junior and community colleges was 3.0% (below the assumed 6.0%).

Future Cash Flows

We have analyzed the projected cash flows from the contracts in the plan as of June 30, 2011. Based on the assumed rate of investment return of 7.8% and the assumed rate of tuition inflation (6.5% for universities and colleges, 6.0% for junior and community colleges), we estimate that the required payments from the trust fund for existing contracts will exceed the asset balance, creating a cash deficit, beginning in the fiscal year ending June 30, 2025. A table summarizing our projected results is shown in Appendix B.

Contract Sales

As of June 30, 2011 there were 21,218 participants enrolled in the Program. This compares to 21,257 participants in the Program as of June 30, 2010.

The majority of the current contracts are for four-year university (11,701 contracts or 55%). There were also 4,363 two-year junior college plus two-year university contracts (21% of the total) and 1,222 two-year junior college contracts (6% of the total). The other 3,932, or 18% of the contracts, are dispersed across the remaining contract types.

Weighted Average Tuition

The Weighted Average Tuition ("WAT") is the average of tuition and fees for in-state residency at Mississippi colleges and universities weighted in proportion to the number of Mississippi resident students attending each of the schools.

WAT for four-year universities is \$5,659 for the fall of 2011, an increase of 7.0% over the WAT of \$5,288 in the fall of 2010.

WAT for junior colleges is \$2,175 for the fall of 2011, an increase of 3.0% over the WAT of \$2,111 in the fall of 2010.

Actuarial Assumptions

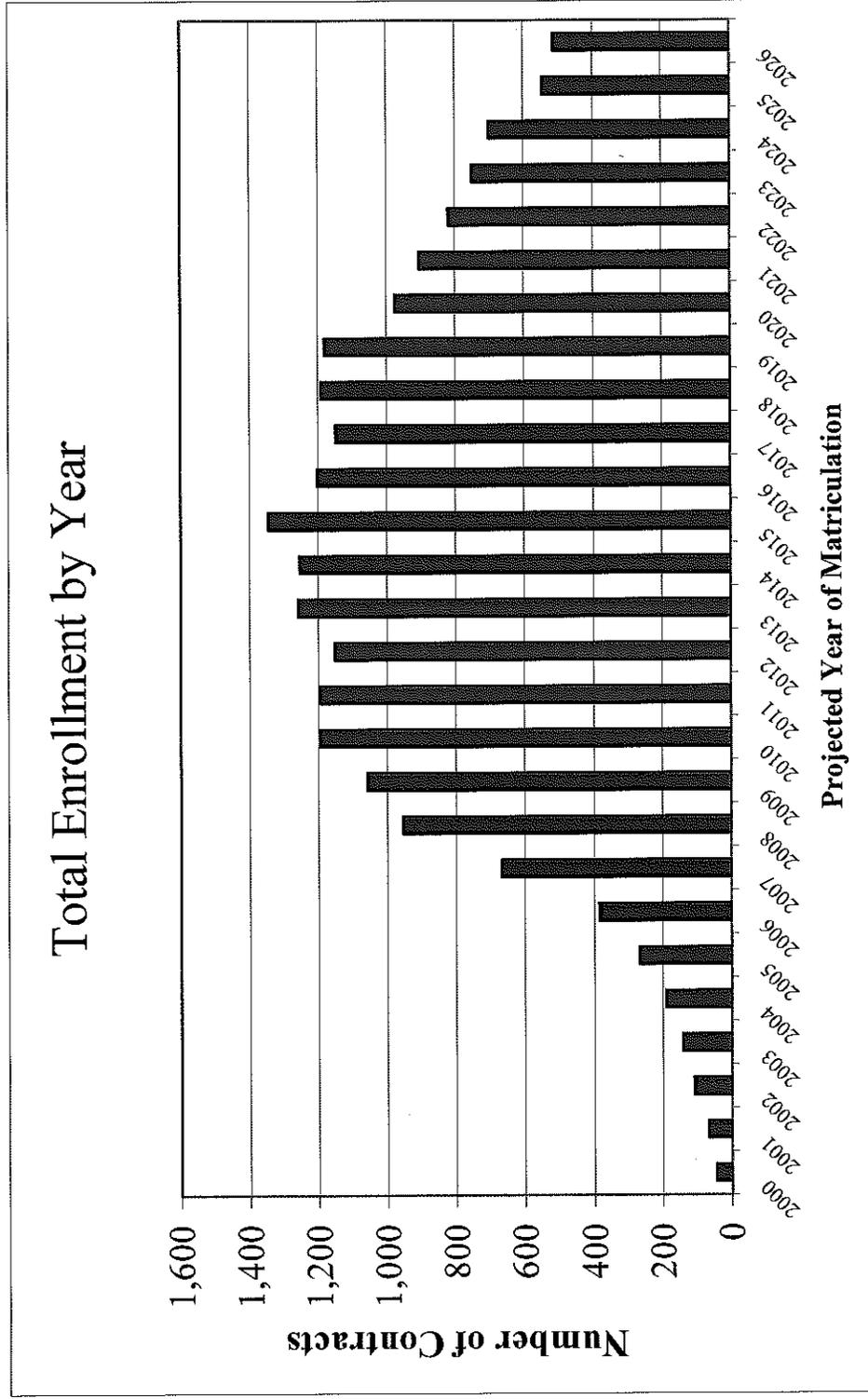
Tuition increases are assumed to be 6.5% per year for all future years at universities, and 6.0% per year for all future years at junior colleges. Investments are assumed to return 7.8% per year for all future years. These assumptions, the other assumptions and the methodology are described more fully in the body of this report.

Yearly Comparison of Selected Plan Year Information

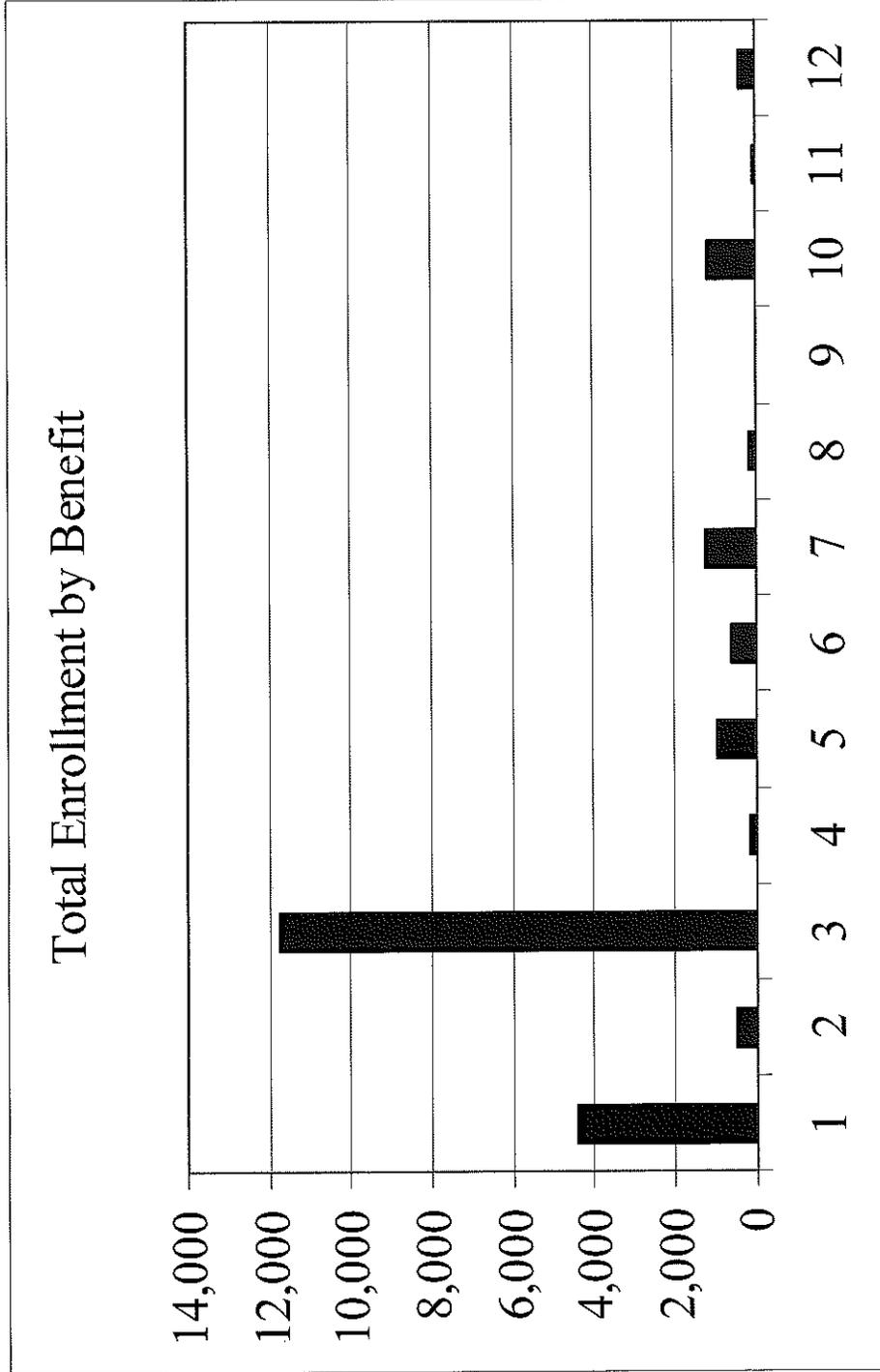
	Plan Year		
	06/30/2009	06/30/2010	06/30/2011
Number of Contracts	21,729	21,257	21,218
Present Value of Contract Liabilities	\$ 317,437,303	\$ 344,788,063	\$ 371,117,670
Present Value of Future Contributions	46,653,345	48,407,172	47,609,671
Market Value of Assets	183,977,882	211,641,934	261,485,358
Funded Ratio	72.7%	75.4%	83.3%
Surplus/(Deficit)	\$ (86,806,076)	\$ (84,738,957)	\$ (62,022,641)

Contract Sales

Contracts can be purchased for a wide range of ages from newborn through high school senior. The chart below illustrates, based on current participation, the total number of active contracts by expected year of college or university matriculation.



Contracts can be purchased for a variety of plans, from one year to five years of tuition and for junior college, four-year university, or various combinations thereof. The chart below illustrates the total number of current enrollees by type of contract.



Type of Contract	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>
Years Junior College	2	1	0	0	0	0	2	1	1	0	1	2
Years Four-Year College	2	3	4	3	2	1	0	0	1	5	4	3

Historic Tuition/Fee Increases

The average tuition for four-year universities is assumed to increase 6.5% per year. The average tuition for junior and community colleges is 6.0% per year. The chart below illustrates the actual increases over the last twenty years compared to that assumption.

Four Year Colleges and Universities				Junior and Community Colleges				
Fiscal Year	Average Tuition/Fees	Annual Increase	Weighted Average Tuition	Annual Increase	Average Tuition/Fees	Annual Increase	Weighted Average Tuition	Annual Increase
Ending 1993	2,314	11.09%			818	12.36%		
1994	2,317	0.13%			942	15.16%		
1995	2,371	2.33%			938	-0.42%		
1996	2,399	1.18%			938	0.00%		
1997	2,426	1.13%			953	1.60%		
1998	2,513	3.59%	2,501		960	0.73%		
1999	2,764	9.99%	2,570	2.76%	971	1.15%		
2000	2,764	0.00%	2,862	11.36%	1,015	4.53%		
2001	2,864	3.62%	2,962	3.49%	1,083	6.70%		
2002	3,294	15.01%	3,408	15.06%	1,283	18.47%		
2003	3,578	8.62%	3,716	9.04%	1,395	8.73%	1,392	1.80%
2004	3,599	0.59%	3,747	0.83%	1,411	1.15%	1,417	10.87%
2005	3,850	6.97%	3,988	6.43%	1,561	10.63%	1,571	6.75%
2006	4,037	4.86%	4,179	4.79%	1,692	8.39%	1,677	1.13%
2007	4,295	6.39%	4,445	6.35%	1,712	1.18%	1,696	0.94%
2008	4,563	6.24%	4,758	7.05%	1,726	0.82%	1,712	2.63%
2009	4,742	3.92%	4,936	3.74%	1,766	2.32%	1,757	3.81%
2010	4,742	0.00%	4,947	0.22%	1,835	3.91%	1,824	15.73%
2011	5,067	6.85%	5,288	6.89%	2,114	15.20%	2,111	3.03%
2012	5,418	6.93%	5,659	7.02%	2,174	2.84%	2,175	

Compound Annual Increase

20 Years	4.90%	5.62%
15 Years	5.50%	5.65%
10 Years	5.10%	5.42%
5 Years	4.76%	4.89%
		5.20%
		4.95%
		4.56%
		5.10%

Sensitivity of Results to Variations in Experience

The table below was prepared to illustrate how variations in future experience will affect the current surplus/ (deficit) of the Program. The Program surplus/ (deficit) as of June 30, 2011 is (\$62.0) million under the base set of assumptions as stated in this report.

Variations in Tuition

Baseline Assumptions	Surplus/(Deficit): (\$62.0) million
University tuition inflation higher all years by 25 basis points	Surplus/(Deficit): (\$68.1) million
University tuition lower in all years by 25 basis points	Surplus/(Deficit): (\$55.7) million
Bias Load is 4% rather than 3%	Surplus/(Deficit): (\$65.4) million
Bias Load is 2% rather than 3%	Surplus/(Deficit): (\$58.3) million

Variations in Investment Income

Investment income rate lower in all years by 25 basis points	Surplus/(Deficit): (\$68.1) million
Investment income rate higher in all years by 25 basis points	Surplus/(Deficit): (\$55.7) million

Break Even Interest Rate

An investment earnings rate of 10.71% is required for the Program to satisfy all future benefits and expenses in the projection period if other experience is consistent with the actuarial assumptions. This rate is less than last year's result of 12.33%.

Break Even Inflation Rates

Maintaining the current relationship that the university inflation rate is 50 basis points greater than the junior college inflation rate, a 3.70% university inflation rate and a 3.20% junior college inflation rate are required for the Program to satisfy all future benefits and expenses in the projection period if other experience is consistent with the actuarial assumptions. These equivalent rates are greater than last year's results.

VALUATION ASSUMPTIONS AND METHODS

Actuarial Assumptions

The assumptions used in the actuarial valuation of the Program are described below. These assumptions were developed by the Board.

Tuition Increases: The Weighted Average Tuition for four-year universities is assumed to increase at 6.5% per year. The Weighted Average Tuition for junior colleges is assumed to increase at 6.0% per year.

Investment Return: Invested assets are assumed to earn 7.8% per year. The Program is exempt from Federal Income Tax.

Expenses: Expenses net of fees collected assumed to be 5% of tuition payments.

Enrollment of MPACT Beneficiaries: Beneficiaries are assumed to attend college or university full time commencing with the expected matriculation date (the Fall following high school graduation). Further, it is assumed that the contract beneficiaries will not attend the available colleges and universities in the same proportion as the headcount information that was used to determine the 2011/2012 Weighted Average Tuition, but rather attend on average more expensive schools than those included in the aforementioned information. Accordingly, a 3% "bias load" was added to the university Weighted Average Tuition to allow for anti-selection toward matriculation at schools with higher tuition.

Contract Cancellations: It was assumed that there would be no contract cancellations.

Deaths and Disability: Mortality and disability decrements were not used.

Actuarial Methods

The actuarial valuation of the Program is based on projections of tuition and required fees expected to be paid on behalf of Program beneficiaries, and on amounts paid into the Program from contract installment payments. This actuarial valuation is based on the data described and corresponding sources of data described below.

<u>Data</u>	<u>Source</u>
Tuition & required fees at four-year universities	Mississippi Institutions of Higher Learning
Headcount at four-year universities	Mississippi Institutions of Higher Learning
MPACT active contract inventory	InTuition Solutions, Inc.
Tuition & required fees at junior colleges	State Board of Community & Junior Colleges
Headcount at junior colleges	State Board of Community & Junior Colleges

MPACT Beneficiaries (Appendix C): The future payments expected to be made to and from the trust fund have been determined based on the number of contracts shown in Appendix C. This information is based on actual enrollment in the program as provided by the above sources.

VALUATION ASSUMPTIONS AND METHODS

Weighted Average Tuition: Four-Year Universities (Appendix D): The Weighted Average Tuition for public four-year universities in Mississippi is the average of tuition and required fees at each of the four-year universities, weighted by full-time equivalent resident enrollment headcount at each university.

Resident enrollment headcount is the number of undergraduate students eligible to pay in-state tuition at Mississippi four-year universities. The full-time headcounts as of Fall 2010 were used to determine the Weighted Average Tuition.

Weighted Average Tuition: Junior and Community Colleges (Appendix E): The Weighted Average Tuition for junior and community colleges was determined using the same methodology as for four-year universities, except the weighting was based on the average full-time headcounts at each college for the Fall 2009 and Fall 2010 semesters.

Annual Increases in Weighted Average Tuition (Appendix F): The one-year increase in Weighted Average Tuition is shown along with the actual required tuition and fees for all applicable schools. The Weighted Average Tuition rates are used to calculate the prices charged to new contracts for the upcoming year.

Appendix A

Funded Status

Market Value of Assets	261,485,358
Actuarial Present Value of future contract installment payments	47,609,671
Subtotal	309,095,029
Actuarial present value of future payments of tuition and fees	371,117,670
Surplus/(Deficit)	(62,022,641)
Funded Status	83.29%

Appendix B

Projected Future Cash Flows

Plan Year Beginning	Market Value BOY	Projected Tuition Payments	Projected Contract Payments	Investment Income	Market Value EOY
2011	261,485,358	(23,303,913)	11,575,472	19,938,449	269,695,366
2012	269,695,366	(29,098,156)	10,273,264	20,302,068	271,172,541
2013	271,172,541	(36,068,773)	8,724,293	20,085,024	263,913,085
2014	263,913,085	(45,353,619)	7,335,578	19,102,517	244,997,561
2015	244,997,561	(33,472,126)	5,802,910	18,030,710	235,359,055
2016	235,359,055	(34,886,473)	4,473,294	17,171,892	222,117,769
2017	222,117,769	(36,454,798)	3,828,730	16,052,769	205,544,470
2018	205,544,470	(38,913,641)	3,185,276	14,639,062	184,455,167
2019	184,455,167	(39,865,674)	2,510,139	12,930,637	160,030,270
2020	160,030,270	(40,608,410)	1,836,885	10,970,272	132,229,016
2021	132,229,016	(41,148,936)	1,361,305	8,762,146	101,203,531
2022	101,203,531	(40,392,830)	1,062,356	6,359,987	68,233,044
2023	68,233,044	(38,409,383)	780,981	3,854,670	34,459,311
2024	34,459,311	(37,176,988)	610,536	1,261,735	(845,406)
2025	(845,406)	(35,488,148)	451,349	-	(35,882,205)
2026	(35,882,205)	(33,515,256)	271,888	-	(69,125,573)
2027	(69,125,573)	(32,010,966)	121,632	-	(101,014,907)
2028	(101,014,907)	(27,487,701)	10,750	-	(128,491,858)
2029	(128,491,858)	(20,489,540)	-	-	(148,981,398)
2030	(148,981,398)	(13,303,593)	-	-	(162,284,991)
2031	(162,284,991)	(5,089,340)	-	-	(167,374,331)
2032	(167,374,331)	(666,043)	-	-	(168,040,374)

Appendix C

Projected Enrollment Year	Type of Contract											Total Enrollment by Yr	Percent of Total		
	2+2	1+3	4 Yr Univ	3 Yr Univ	2 Yr Univ	1 Yr Univ	2 Yr Jr Coll	1 Yr Jr Coll	1+1	5 Yr Univ	1+4			2+3	
1999	-	-	1	-	-	-	-	-	-	-	-	-	-	1	0.00%
2000	10	3	27	-	-	1	1	1	-	-	-	-	-	44	0.22%
2001	17	1	40	1	-	3	4	4	1	1	-	-	-	68	0.34%
2002	25	4	64	-	4	4	10	10	1	-	-	-	-	110	0.55%
2003	28	4	92	1	3	3	9	9	-	2	1	-	-	142	0.70%
2004	30	5	123	3	5	6	12	12	-	-	5	-	3	192	0.95%
2005	49	7	164	1	9	6	18	18	1	-	7	-	3	268	1.33%
2006	73	11	232	3	11	12	23	23	1	-	14	-	6	386	1.91%
2007	118	11	423	5	15	18	31	31	2	-	30	-	9	666	3.30%
2008	187	19	638	3	25	12	37	37	2	-	21	-	8	954	4.73%
2009	202	33	636	12	49	32	53	53	2	-	30	-	8	1,058	5.25%
2010	248	30	671	11	55	39	82	82	1	-	42	-	12	1,195	5.93%
2011	221	25	704	5	59	49	62	62	9	-	49	-	13	1,196	5.93%
2012	270	26	619	9	66	36	57	57	10	-	46	-	13	1,153	5.72%
2013	296	36	655	5	81	30	85	85	8	-	48	-	14	1,259	6.25%
2014	259	32	678	10	58	39	94	94	8	-	53	-	21	1,253	6.22%
2015	292	40	755	5	65	38	79	79	6	-	49	-	15	1,345	6.67%
2016	252	21	671	7	60	34	69	69	12	-	49	-	26	1,203	5.97%
2017	246	27	584	8	67	22	69	69	8	-	81	-	33	1,149	5.70%
2018	231	22	635	8	49	41	66	66	7	-	103	-	24	1,191	5.91%
2019	231	26	631	7	61	24	69	69	6	-	96	-	27	1,181	5.86%
2020	225	10	498	5	49	27	46	46	9	-	67	-	33	974	4.83%
2021	221	10	414	5	54	34	53	53	4	-	85	-	22	904	4.48%
2022	160	9	446	2	51	20	40	40	3	-	66	-	22	820	4.07%
2023	138	9	403	3	37	23	54	54	5	-	62	-	15	749	3.72%
2024	134	7	372	5	28	15	35	35	10	-	69	-	23	699	3.47%
2025	103	6	275	6	29	20	29	29	4	-	51	-	22	545	2.80%
2026	97	6	250	4	28	16	35	35	4	-	61	-	11	513	2.64%
	4,363	440	11,701	134	1,022	597	1,222	1,222	124	2	1,187	43	383	21,218	
	20.56%	2.07%	55.15%	0.63%	4.82%	2.81%	5.76%	5.76%	0.58%	0.01%	5.59%	0.20%	1.81%	100.00%	

Appendix D

Weighted Average Tuition Calculation – Four Year Universities

Institution	Full-Time Equivalent Enrollment Fall 2010	Percentage of Total	Tuition and Required Fees 2011 Fiscal Year
Alcorn State University	2,821	5.13%	5,247
Delta State University	2,549	4.63%	5,287
Jackson State University	5,942	10.80%	5,506
Mississippi State University	14,217	25.84%	5,805
Mississippi University for Women	2,050	3.73%	4,876
Mississippi Valley State University	1,984	3.61%	4,996
University of Mississippi	13,811	25.11%	5,792
University of Southern Mississippi	11,635	21.15%	5,834
Total	55,009		
		Weighted Average	5,659.00
		Semester Hour	176.84
		Quarter Hour	117.90

Appendix E

Weighted Average Tuition Calculation – Junior and Community Colleges

	Resident Enrollment Fall 2009	Resident Enrollment Fall 2010	Average Resident Enrollment	Tuition and Required Fees 2011 Fiscal Yr.
Coahoma Community College	2,453	2,696	2,575	2,100
Copiah-Lincoln Community College	3,630	3,799	3,715	2,100
East Central Community College	2,579	2,617	2,598	2,020
East Mississippi Community College	4,988	5,306	5,147	2,450
Hinds Community College	11,693	12,791	12,242	2,060
Homes Community College	6,462	6,404	6,433	2,138
Itawamba Community College	7,596	7,742	7,669	2,000
Jones Community College	5,287	5,323	5,305	2,380
Meridian Community College	3,955	3,980	3,968	2,244
Mississippi Delta Community College	3,211	3,392	3,302	2,330
Mississippi Gulf Community College	10,051	10,072	10,062	2,472
Northeast Mississippi Community College	3,618	3,614	3,616	2,172
Northwest Mississippi Community College	7,972	8,370	8,171	1,950
Pearl River Community College	4,883	5,014	4,949	2,100
Southwest Mississippi Community College	2,172	2,096	2,134	2,090
Total	80,550	83,216	81,883	
			Weighted Average	2,175.00
			Semester Hour	67.97
			Quarter Hour	45.31

Appendix F

Weighted Average Tuition	Annual Increase in Weighted Average Tuition		Increase	% Change
	2010-2011	2011-2012		
Universities				
1 Year	5,288.00	5,659.00	371.00	7.02%
4 Year	21,152.00	22,636.00	1,484.00	7.02%
Per Semester Hour	165.25	176.84	11.59	7.01%
Per Quarter Hour	110.17	117.90	7.73	7.02%
Lump Sum Payment One Year	5,632.00	6,027.00	395.00	7.01%
Community Colleges				
1 Year	2,111.00	2,175.00	64.00	3.03%
4 Year	4,222.00	4,350.00	128.00	3.03%
Per Semester Hour	65.97	67.97	2.00	3.03%
Per Quarter Hour	43.98	45.31	1.33	3.02%
Lump Sum Payment One Year	2,238.00	2,306.00	68.00	3.04%

Tuition and Required Fees Fiscal 2012

	1 Year	4 Year
Alcorn State University	5,247	20,988
Delta State University	5,287	21,148
Jackson State University	5,506	22,024
Mississippi State University	5,805	23,220
Mississippi University for Women	4,876	19,504
Mississippi Valley State University	4,996	19,984
University of Mississippi	5,792	23,168
University of Southern Mississippi	5,834	23,336
	1 Year	2 Year
Coahoma Community College	2,100	4,200
Copiah-Lincoln Community College	2,100	4,200
East Central Community College	2,020	4,040
East Mississippi Community College	2,450	4,900
Hinds Community College	2,060	4,120
Homes Community College	2,138	4,276
Itawamba Community College	2,000	4,000
Jones Community College	2,380	4,760
Meridian Community College	2,244	4,488
Mississippi Delta Community College	2,330	4,660
Mississippi Gulf Community College	2,472	4,944
Northeast Mississippi Community College	2,172	4,344
Northwest Mississippi Community College	1,950	3,900
Pearl River Community College	2,100	4,200
Southwest Mississippi Community College	2,090	4,180