

# ANNUAL ACTUARIAL AND FINANCIAL REPORT

State Treasury Department



THE MISSISSIPPI PREPAID AFFORDABLE  
COLLEGE TUITION PROGRAM

**Fiscal Year 1997**  
**July 1, 1996 - June 30, 1997**

**THE MISSISSIPPI PREPAID  
AFFORDABLE COLLEGE TUITION  
PROGRAM**

**Annual Actuarial  
And Financial Report**

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**Fiscal Year 1997  
July 1, 1996 - June 30, 1997**



**THE MISSISSIPPI PREPAID AFFORDABLE  
COLLEGE TUITION PROGRAM**

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Suite 210  
Jackson, Mississippi 39201

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Jackson, MS 39205-0120

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1.800.987.4450  
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Board of Directors:  
William T. "Dale" Patterson, Chairman  
Appointed by Governor  
4th Congressional District

Bobby J. Gaines, Vice Chairman  
Appointed by Governor  
5th Congressional District

Ron E. Allen  
Appointed by Governor  
3rd Congressional District

Marshall Bennett  
State Treasurer

Roosevelt Daniels, II  
Appointed by Governor  
2nd Congressional District

Dr. Thomas Layzell  
Commissioner of  
Higher Education

Dr. Edward L. Ranck  
Executive Director  
Department of Finance  
& Administration

Dr. Oton Ray  
Executive Director  
Community & Junior College Board

Rebecca Browne Taylor  
Appointed by Governor  
1st Congressional District

Legislative Advisors:  
Sen. Terry Burton  
Sen. Billy Hewes, III  
Rep. Norma Bourdeaux  
Rep. Alfred L. Walker, Jr.

December 31, 1997

The Honorable Kirk Fordice  
Governor of the State of Mississippi  
Members of the Mississippi Legislature  
Members of the Board of Trustees of State Institutions of Higher Learning  
Members of the State Board for Community and Junior Colleges  
Members of the State Board of Education  
Citizens of Mississippi

In compliance with Section 37-155-9(cc), Mississippi Code Annotated, I am honored on behalf of the Board of Directors of the Mississippi Prepaid Affordable College Tuition (MPACT) Program to submit to you this first annual report of the MPACT Program.

MPACT was created by Senate Bill 2237 during the 1996 Mississippi Legislature. The MPACT Board believes this significant action to be one of the most pro-family pieces of legislation in many years.

Major goals of the legislation were to provide a way for advance payment of college tuition as both a means and an incentive for the citizens of Mississippi to provide for the future college expenses of their children, and to encourage timely planning for higher education costs by the creation of prepaid tuition contracts. The MPACT Board believes that a strong beginning was accomplished in fiscal year 1997 toward the accomplishment of these purposes. Some significant achievements of the program during its first year include the following:

- \* Over 8,000 applications to the program were received on behalf Mississippi's children;
- \* Through the distribution throughout the state of over 50,000 enrollment booklets plus an additional 100,000 brochures, parents and grandparents were given the opportunity to provide for the future college educations of their children;
- \* The Program received an unqualified financial audit opinion and a sound actuarial evaluation.
- \* As of November 30, 1997, over \$24 million in funds were received from contracts sold during fiscal year 1997, representing over \$57 million in future tuition payments.

The MPACT Board of Directors is very pleased with the results of our first year of operations and remains committed to the long term success of this outstanding opportunity for the people of Mississippi.

Sincerely,

Marshall Bennett  
State Treasurer and  
Ex-Officio Member of the  
MPACT Board of Directors

Guaranteed by the State of Mississippi



**MISSISSIPPI PREPAID AFFORDABLE COLLEGE TUITION (MPACT) PROGRAM  
ANNUAL FINANCIAL AND ACTUARIAL REPORT  
AS OF JUNE 30, 1997**

**EXECUTIVE SUMMARY**

**Program Description and Activities**

MPACT is a new program, begun in FY 1997, under which Mississippians may pay in advance for some of the costs associated with higher education for their children and grandchildren and receive a guarantee from the State as to the payment of tuition and fees at State-supported institutions at the time of college enrollment. It was authorized under S.B. 2237, Laws of 1996, Mississippi Code Annotated §37-155-1 et seq. The MPACT Program is administered within the State Treasury Department under policies established by the MPACT Board of Directors. During FY 1997 MPACT produced Rules & Regulations for its operation, hired staff, contracted for outside professional services (Records Administrator, Actuaries, Marketing Consultants, Legal Counsel, Custodial Banks etc.), developed marketing plans and literature, and performed other start-up tasks necessary before full operations could commence. Prepaid tuition contracts were offered for sale to the public during a successful initial enrollment period.

**Independent Auditor's Report**

The financial statements of the MPACT Program as of the fiscal year ended June 30, 1997 were audited by the Jackson office of Deloitte & Touche, LLP. Our auditors issued an unqualified audit opinion that "such financial statements present fairly, in all material respects, the financial position of the Mississippi Prepaid Affordable College Tuition Program as of June 30, 1997, and the results of its operations and the cash flows of its component unit for the year then ended in conformity with generally accepted accounting principles." Complete copies of the auditors' report, the financial statements and accompanying notes are enclosed. A separate audit will be conducted for FY 1998, which runs from July 1, 1997 to June 30, 1998.

**Independent Actuaries Report**

An actuarial evaluation of the MPACT Program as of June 30, 1997 was performed by Coopers &

Lybrand, LLP. This evaluation concluded that the MPACT Trust Fund was actuarially sound, with an actuarial surplus of approximately \$340,000. It is the intention of the MPACT Board of Directors to treat accumulated actuarial surpluses as a contingency fund and apply such surpluses against any possible future actuarial losses as needed. A copy of the actuary's report is enclosed. A separate actuarial evaluation will be conducted for FY 1998.

**Enrollment Results**

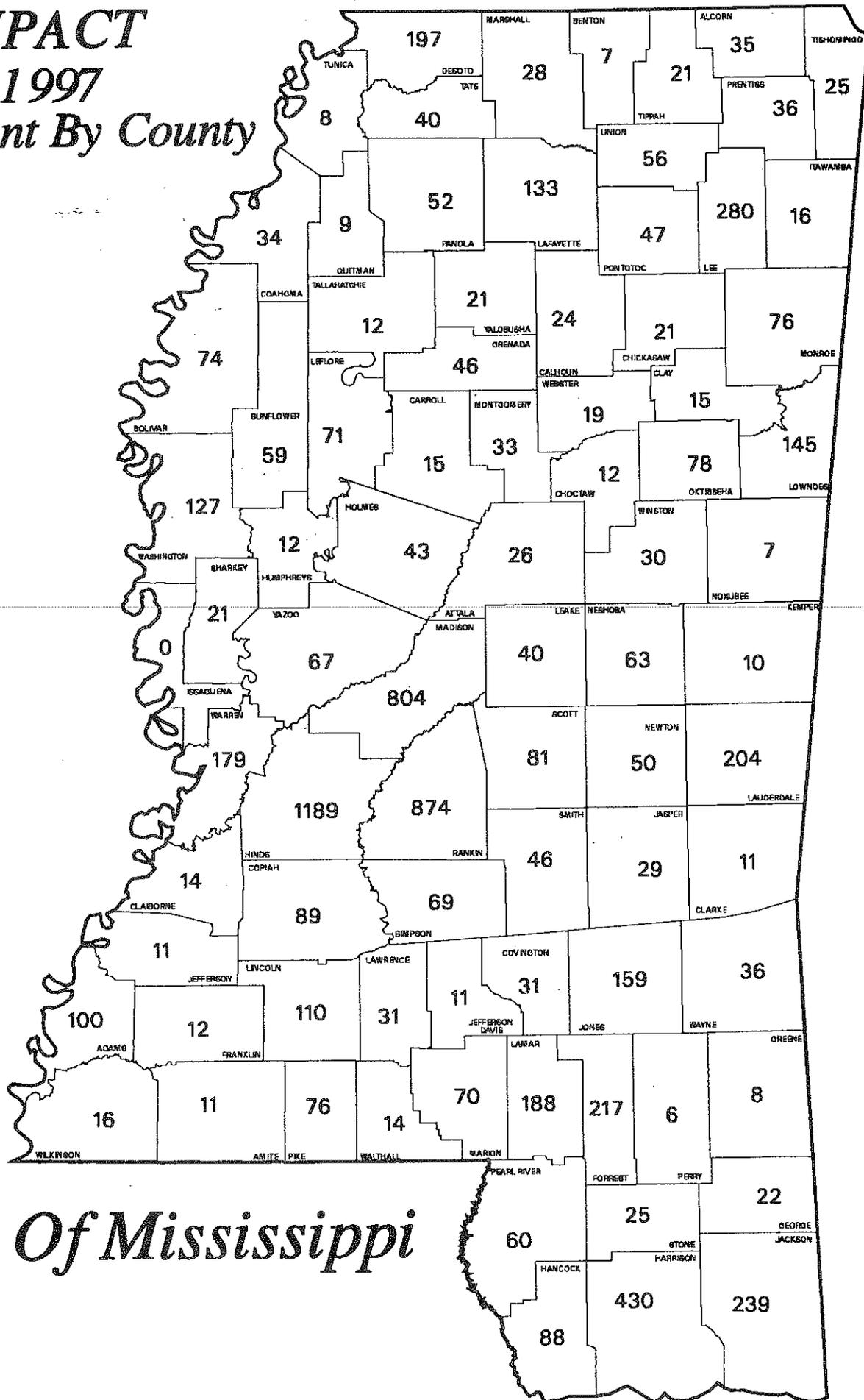
MPACT held its first enrollment period from February 1, 1997 till April 30, 1997. During this period over 7,000 prepaid tuition contracts were sold. The majority of contracts sold were for a full four years of college, with 61% for four year universities and another 23% for two years at a community college followed by two years at a university. Contracts were fairly evenly distributed across expected matriculation years (1997 through 2015), the exception being a relatively few contracts with matriculation years of 1999 and earlier.

A second enrollment period was held from September 1 till October 31, 1997. During this period approximately 1,000 additional contract applications were received. Results from the fall enrollment period are not reflected in the financial statements as of June 30, 1997. The MPACT Board of Directors has established a policy to hold future enrollment periods annually in the fall of each year.

**Financial Results**

Contract payments from the first enrollment period were not due until July, 1997. As of June 30, 1997 the MPACT Trust Fund had received early tuition contract payments totaling \$11,681,986. By November 30, 1997 the fund had received over \$24 million in payments under contracts sold during the first enrollment period. This amount, plus future payments due from participants under current contracts, will fund future tuition payments with an actuarial present value of approximately \$57 million.

# MPACT 1997 Enrollment By County



State Of Mississippi

**BOARD OF DIRECTORS  
MISSISSIPPI PREPAID AFFORDABLE COLLEGE TUITION PROGRAM**

Mr. William F. "Dale" Patterson  
Chairman  
4th Congressional District

Mr. Edward L. Ranck  
Executive Director,  
Department of Finance &  
Administration

Mr. Bobby J. Gaines  
Vice Chairman  
5th Congressional District

Dr. Olon Ray  
Executive Director,  
Community & Junior College Board

Mr. Ron E. Allen  
3rd Congressional District

Ms. Rebecca Browne Taylor  
1st Congressional District

The Honorable Marshall Bennett  
State Treasurer

---

Mr. Roosevelt Daniels, II  
2nd Congressional District

Legislative Advisors:  
Sen. Terry Burton  
Sen. Billy Hewes, III  
Rep. Norma Bourdeaux  
Rep. Alfred L. Walker, Jr.

Dr. Thomas Layzell  
Commissioner of Higher Education

**MISSISSIPPI PREPAID AFFORDABLE  
COLLEGE TUITION PROGRAM**

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Actuarial Valuation  
Year Ended June 30, 1997 and  
Independent Actuaries' Report



**INDEPENDENT AUDITORS' REPORT**

To the Board of Directors  
Mississippi Prepaid Affordable College Tuition Program  
Jackson, Mississippi

We have audited the accompanying financial statements of the Mississippi Prepaid Affordable College Tuition Program (the "Program") as of and for the year ended June 30, 1997. These financial statements are the responsibility of the Program's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As described more fully in Note 1, the financial statements present only the Mississippi Prepaid Affordable College Tuition Program, and are not intended to present fairly the financial position and results of operations of the State of Mississippi, in conformity with generally accepted accounting principles.

In our opinion, such financial statements presents fairly, in all material respects, the financial position of the Mississippi Prepaid Affordable College Tuition Program as of June 30, 1997, and the results of its operations and the cash flows of its component unit for the year then ended in conformity with generally accepted accounting principles.

In accordance with *Government Auditing Standards*, we have also issued a report dated October 3, 1997 on our consideration of the Program's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grants.

*Deloitte & Touche LLP*

October 3, 1997

**MISSISSIPPI PREPAID AFFORDABLE COLLEGE TUITION PROGRAM  
BALANCE SHEET  
AT JUNE 30, 1997**

	Trust Fund	Administrative Fund	Total
<b>ASSETS</b>			
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	\$2,019,372	\$206,578	\$2,225,950
Short-term investments	9,910,000		9,910,000
Due from other funds	461		461
Total current assets	11,929,833	206,578	12,136,411
<b>NONCURRENT ASSETS</b>			
Fixed assets, net of accumulated depreciation	-0-	1,173	1,173
Total assets	\$11,929,833	\$207,751	\$12,137,584
<b>LIABILITIES AND TRUST EQUITY</b>			
<b>CURRENT LIABILITIES</b>			
Warrants payable		\$61,579	\$61,579
Vouchers payable		55,416	55,416
Due to other funds		78	78
Tuition benefits and expense payable	\$516,408		516,408
Total current liabilities	516,408	117,073	633,481
<b>LONG-TERM LIABILITIES</b>			
Tuition benefits and expense payable	10,825,085		10,825,085
Due to other funds		500,000	500,000
Compensated absences		7,530	7,530
Total long-term liabilities	10,825,085	507,530	11,332,615
Total liabilities	11,341,493	624,603	11,966,096
<b>TRUST EQUITY</b>			
Retained earnings	588,340	(416,852)	171,488
Total liabilities and trust equity	\$11,929,833	\$207,751	\$12,137,584

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

**Deloitte &  
Touche LLP**



**MISSISSIPPI PREPAID AFFORDABLE COLLEGE TUITION PROGRAM  
STATEMENT OF CASH FLOWS  
FOR THE YEAR ENDED JUNE 30, 1997**

	Trust Fund	Administrative Fund	Total
<b>OPERATING ACTIVITIES</b>			
Contract payments received	\$12,115,366		\$12,115,366
Cash payments to suppliers for goods and services		(422,226)	(422,226)
Cash payments to employees for services		(69,941)	(69,941)
Net cash from (used for) operating activities	12,115,366	(492,167)	11,623,199
<b>NONCAPITAL FINANCING ACTIVITIES</b>			
Operating transfers	(200,000)	200,000	-0-
Loans from other funds		500,000	500,000
Net cash from (used for) noncapital financing activities	(200,000)	700,000	500,000
<b>CAPITAL AND RELATED FINANCING ACTIVITIES</b>			
Acquisition and construction of capital assets		(1,255)	(1,255)
Net cash from (used for) capital and related financing activities	-0-	(1,255)	(1,255)
<b>INVESTING ACTIVITIES</b>			
Purchase of investments	(9,910,000)		(9,910,000)
Interest on investments	14,006		14,006
Net cash from (used for) investing activities	(9,895,994)	-0-	(9,895,994)
<b>INCREASE IN CASH AND CASH EQUIVALENTS</b>	<b>2,019,372</b>	<b>206,578</b>	<b>2,225,950</b>
<b>CASH AND CASH EQUIVALENTS AT INCEPTION OF PROGRAM</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>
<b>CASH AND CASH EQUIVALENTS AT END OF YEAR</b>	<b>\$2,019,372</b>	<b>\$206,578</b>	<b>\$2,225,950</b>

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

**MISSISSIPPI PREPAID AFFORDABLE COLLEGE TUITION PROGRAM  
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN RETAINED EARNINGS  
FOR THE YEAR ENDED JUNE 30, 1997**

	Trust Fund	Administrative Fund	Total
<b>Operating Revenues</b>			
Interest on investments	\$14,467		\$14,467
Administrative fees	433,380		433,380
Excess of tuition receipts over present value of related benefits payable	340,493		340,493
<b>Total operating revenues</b>	<b>788,340</b>		<b>788,340</b>
<b>OPERATING EXPENSES</b>			
Salaries and travel		\$91,412	91,412
Contractual services		502,993	502,993
Commodities and supplies		22,365	22,365
Depreciation		82	82
<b>Total operating expenses</b>	<b>-0-</b>	<b>616,852</b>	<b>616,852</b>
<b>Operating income (loss)</b>	<b>788,340</b>	<b>(616,852)</b>	<b>171,488</b>
<b>OPERATING TRANSFERS</b>	<b>(200,000)</b>	<b>200,000</b>	<b>-0-</b>
<b>NET INCOME (LOSS)</b>	<b>588,340</b>	<b>(416,852)</b>	<b>171,488</b>
<b>RETAINED EARNINGS AT INCEPTION OF PROGRAM</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>
<b>RETAINED EARNINGS AT END OF YEAR</b>	<b>\$588,340</b>	<b>(\$416,852)</b>	<b>\$171,488</b>

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

**MISSISSIPPI PREPAID AFFORDABLE COLLEGE TUITION PROGRAM**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 1997**

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

- A. General Description of the Mississippi Prepaid Affordable College Tuition Program (MPACT). MPACT operates a prepaid college tuition program. The program enters into a contract with a purchaser which provides that, in return for a specified actuarially determined payment, MPACT will provide the contract beneficiary's undergraduate tuition and mandatory fees (up to 128 semester hours) at any Mississippi public university or community college. If the contract beneficiary attends an out-of-state or private accredited institution, MPACT will pay to that school an amount up to, but not in excess of, the average tuition and mandatory fees at Mississippi's public universities or community colleges. The purchase amount is based on several factors, including tuition costs, the beneficiary's age and grade in school, anticipated investment earnings, and anticipated tuition rate increases. The MPACT Program's obligations to Contract Purchasers, beneficiaries or others are backed by the full faith and credit of the State of Mississippi. In the event of cancellation, purchasers will receive a refund of principal paid into the program, plus an amount of interest not less than the prevailing rates of interest paid by bank savings accounts.

The MPACT Program operates under the provisions of Mississippi Code Ann., §37-155-1 through §37-155-27. The effective date of the enabling legislation was July 1, 1996. MPACT is administratively located within the Mississippi Treasury Department. The program is governed by a nine-member board of directors consisting of the following members: the State Treasurer, the Commissioner of Higher Education, the Executive Director of the Community and Junior College Board, the Department of Finance and Administration Executive Director and one (1) member from each congressional district as appointed by the Governor with the advice and consent of the Senate.

- B. Reporting Entity - The MPACT Program is a part of the State of Mississippi's reporting entity and is reported as an enterprise fund in the State of Mississippi Comprehensive Annual Financial Report (CAFR). The notes accompanying these financial statements relate directly to the Mississippi Prepaid Affordable College Tuition Program.
- C. Basis of Accounting - The financial statements contained in this report are prepared on the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when services or benefits are received.
- D. Cash and Cash Equivalents - For purposes of the statement of cash flows, MPACT defines cash equivalents as demand deposit accounts and cash in the State Treasury.
- E. Investment Securities - MPACT elected early implementation of GASB Standard No. 31, "Accounting and Reporting for Certain Investments and for External Investment Pools",

which requires that investments in equity securities with readily determinable fair values, all investments in debt securities and open-end mutual funds, and certain investments in interest-earning investment contracts be reported at fair value with gains and losses included as a component of revenues and expenses. There were no unrealized gains or losses on investments at June 30, 1997.

- F. Determination Of Fair Values Of Financial Investments - Fair value for cash, short-term investments, receivables and payables approximates carrying value. Fair values for investment securities are based on quoted market prices, where available. Otherwise, fair values are based on quoted market prices of comparable instruments.
- G. Fixed Assets - Fixed Assets are reported at cost less allowances for depreciation. Depreciation is recorded on the straight-line method over the estimated useful lives of the assets.
- H. Tuition Benefits and Expenses Payable - Tuition benefits and expenses payable represents the current and long-term portions of the actuarially determined present value of future tuition obligations and program expenses.
- I. Interfund Transactions - During the course of normal operations, the MPACT funds show numerous transactions between funds. These transactions are reflected as operating transfers or as interfund receivables and payables. Management's intent to reimburse determines whether or not the interfund transactions is recorded as a transfer or a receivable.
- J. Accounting and Reporting - Under Governmental Accounting Standards Board (GASB) Statement No. 20, Accounting and Financial Reporting for Proprietary Fund Accounting, The MPACT Program has elected to apply all applicable GASB pronouncements as well as Financial Accounting Standards Board pronouncements and Accounting Principles Board opinions, issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements.
- K. Use of Estimates - The financial statements are prepared in conformity with generally accepted accounting principles which require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

## NOTE 2 - DEPOSITS AND INVESTMENTS

Governmental Accounting Standards Board (GASB) Statement No. 3 requires certain disclosures regarding policies and practices with respect to deposits and investments and the credit risk associated with them.

Deposits - At fiscal year end the carrying amount of the Program's deposits was \$12,135,950 and the bank balance was \$12,135,950, including all bank accounts, funds in the State Treasury, and short-term investments. Deposits of the program are entirely insured or collateralized with securities.

Investments - Mississippi law authorizes the MPACT Trust Fund to invest in bonds or other general obligations of the State of Mississippi and its political subdivisions, obligations of the U.S. Treasury, Federal Land Bank bonds, Federal Home Loan Bank notes and bonds, Federal National Mortgage Association notes, debentures or obligations guaranteed by the U.S. Government, Bonds of the Tennessee Valley Authority, bonds of other states, corporate bonds of investment grade, and other fixed income investments. Additionally, the Trust Fund is permitted to invest in equity securities, including covered call or put options on securities traded on a regulated exchange, that are determined by the Board of Directors to be consistent with the investment statutes and policies. The statute sets limits in terms of the percentage of the total investments of the Trust Fund that may be placed in any one category or type of investment. For a complete description of allowable investments, see Mississippi Code Ann., §37-155-9(v).

#### NOTE 3 - INVESTMENT SECURITIES

As of June 30, 1997, all investments of the Trust Fund were in overnight repurchase agreements of U.S. Treasury obligations, fully collateralized. During the year beginning July 1, 1997, the fund will be invested according to the relevant statutes and the investment policies adopted by the Board of Directors.

#### NOTE 4 - TUITION BENEFITS AND EXPENSES PAYABLE - NET

Tuition benefits and expenses payable, net, represents the current and long-term portions of the actuarially determined present value of future tuition obligations and program expenses, net of the present value of future payments expected to be made to the Trust Fund by installment contract purchasers. Recording future tuition obligations at the actuarially determined present value results in the recognition of tuition benefit expense and a corresponding increase in tuition benefits payable.

Actuarially Determined Funding Status - Presented below is the total tuition benefits obligation of the Program. The standardized measurement is the actuarial present value (A.P.V.) of the future tuition obligation. This valuation method reflects the present value of estimated tuition benefits that will be paid in future years and is adjusted for the effects of projected tuition increases. The tuition benefits obligation was determined as part of the latest available actuarial valuation. Significant actuarial assumptions used and results from the most recent valuation are as follows:

Date of latest actuarial valuation: June 30, 1997

**Assumptions:**

Rate of return on investments	8.1%
Future tuition increases	7%

Payment of tuition and  
mandatory fees

128 credit hours utilization; payments  
will occur twice annually

**Results:**

A.P.V. of future benefits and expense payable		
Current	\$	516,408
Long-term		<u>10,825,085</u>
Total	\$	<u>11,341,493</u>
Net assets available for benefits		
At market value	\$	<u>11,681,986</u>
Assets in excess of tuition		
benefits and expenses payable	\$	<u>340,493</u>
Assets as percentage of tuition		
benefits and expenses payable		<u>103.0%</u>
Tuition benefits and expenses payable, net is made up of the following as of June 30, 1997:		
Actuarial present value of future payments to be made for tuition, fees, expenses and contract cancellations for all contracts sold:	\$	57,305,166
Actuarial present value of future payments to be received from installment contract purchasers	\$	<u>(45,963,673)</u>
Tuition benefits and expenses payable, Net at end of year	\$	<u>11,341,493</u>

**NOTE 5 - TAX STATUS**

The Board of the Trust Fund has, based on the opinion of tax counsel, held the view that the Trust Fund is exempt from federal income taxation. The basis upon which the Board has taken the position that the Trust Fund is tax-exempt is its relationship and position as an agency and instrumentality of the State of Mississippi. The Mississippi statutes which establish the Trust Fund (§§37-155-1-27) specify that it is a state "agency and instrumentality" as confirmed by an official Attorney General's opinion. State agencies are not subject to income taxation under general principles of federal tax law.



In 1996, Congress passed the Small Business Job Protection Act of 1996. Section 1806 of the 1996 Act added Section 529 to the Internal Revenue Code of 1986. Code Section 529 provides that a "qualified state tuition program" is exempt from all federal income taxation except that imposed by Code Section 511 relating to unrelated business income (which is unlikely to apply to the MPACT Program given its current investment policies because the Program's sources of revenue do not include unrelated business income). The term "qualified state tuition program" is defined generally in Code Section 529 as a program established and maintained by a state or agency and instrumentality thereof under which, among other things, a person may make cash contributions to an account established solely for meeting the qualified higher education expenses of the designated beneficiary of the account. To the extent necessary and applicable, the Trust Fund documents are being or have been amended to include the qualification criteria required by Section 529. Accordingly, no provision for income taxes has been made in these financial statements for accrual of income taxes for the year ended June 30, 1997.

# **MISSISSIPPI PREPAID AFFORDABLE COLLEGE TUITION PROGRAM**

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**Financial Statements  
Year Ended June 30, 1997, and  
Independent Auditors' Reports**

October 29, 1997

Board of Directors  
Mississippi Prepaid Affordable College  
Tuition Program  
State Treasury Department  
Suite 210  
625 North State Street  
Jackson, Mississippi 39201

To the Board:

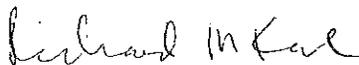
This report presents the results of the June 30, 1997 actuarial valuation of the program. The valuation compares the value of the assets of the program to the value of expected future tuition payments to beneficiaries. The following pages summarize the actuarial evaluation of the trust fund performed by Coopers & Lybrand as of June 30, 1997.

A comparison of the assets and liabilities of the trust fund shows that as of June 30, 1997 there is a reserve of approximately \$340,000. It is our understanding that the Board intends to apply the reserve against future actuarial losses as needed.

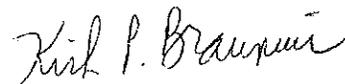
The actuarial valuation was performed based upon generally accepted actuarial principles, and tests were performed as considered necessary to ensure the accuracy of the results. We certify that the amounts presented in the following pages have been appropriately determined according to the actuarial assumptions stated herein.

Respectfully submitted,

COOPERS & LYBRAND



Richard M. Kaye  
Fellow of the Society of Actuaries  
Enrolled Actuary Number 96-1348



Kirk P. Braunius  
Associate of the Society of Actuaries  
Enrolled Actuary Number 96-4939

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- 1 Executive Summary
- 2 Valuation Assumptions and Methods

## *Appendices*

- A Funded Status
- B Trust Assets
- C Cash Flow Projection
- D MPACT Beneficiaries

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- E Tuition - Four-Year Universities
- F Tuition - Community and Junior Colleges

## **EXECUTIVE SUMMARY**

### *Valuation Results*

- ◆ As of June 30, 1997 the trust has a surplus of \$340,493 (the value of assets, including the value of future payments by contract purchasers, exceeds the expected liabilities of the trust by that amount). We understand that the intent of the Board is to apply the surplus against future actuarial losses, if any, as needed.

### *Contract Sales*

- ◆ The initial enrollment period for the Mississippi Prepaid Affordable College Tuition Program (MPACT) resulted in the sale of approximately 7,000 contracts.
- ◆ The majority of contracts sold were for a full four years of college, with 61% for four year universities and another 23% for two years at junior or community college followed by two years at a four year university.
- ◆ Contracts were fairly evenly distributed across expected matriculation years (1997 through 2015), the exception being a relatively few contracts with matriculation years of 1999 and earlier.

### *Weighted Average Tuition*

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

- ◆ WAT for four-year universities increased from \$2,501 for the Fall of 1996 to \$2,570 for the Fall of 1997, an increase of 2.8% compared to the assumed 7% increase.
- ◆ The Junior College WAT increased from \$954 for the Fall of 1996 to \$962 Fall of 1997, an increase of less than 1% compared to the assumed 7% increase.

### *Actuarial Assumptions*

- ◆ Tuitions are assumed to increase at 7%, while investments are expected to earn 8.1% per annum. The actuarial assumptions and methods are fully described in the following section of this report.

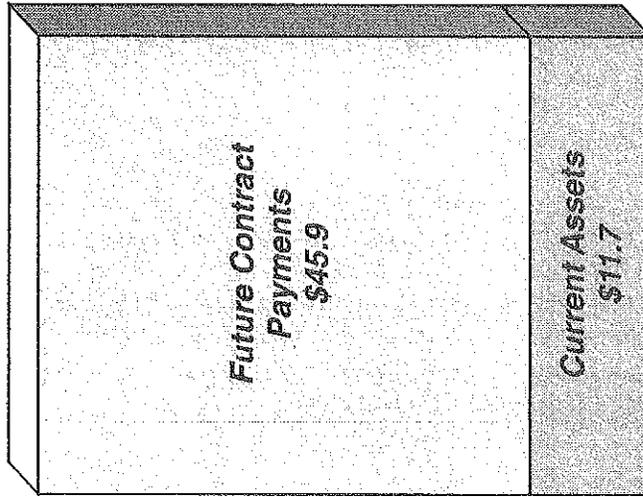
# ***Valuation Assumptions And Methods***

## Funded Status

The value of assets as of June 30, 1997 (including the value of future payments by contract purchasers) exceeds the expected liabilities of the trust fund by \$340.5 thousand. The funded ratio, assets divided by liabilities, is equal to 100.6%. The assumptions used to perform the actuarial valuation of the fund are described in Section 2. The primary assumptions are:

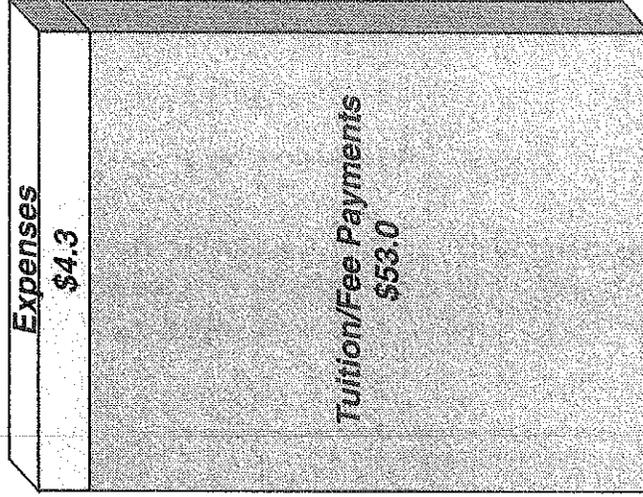
Tuition Increases	7.0% per annum
Investment Return	8.1% per annum

**Total: \$57.6 million**



Assets

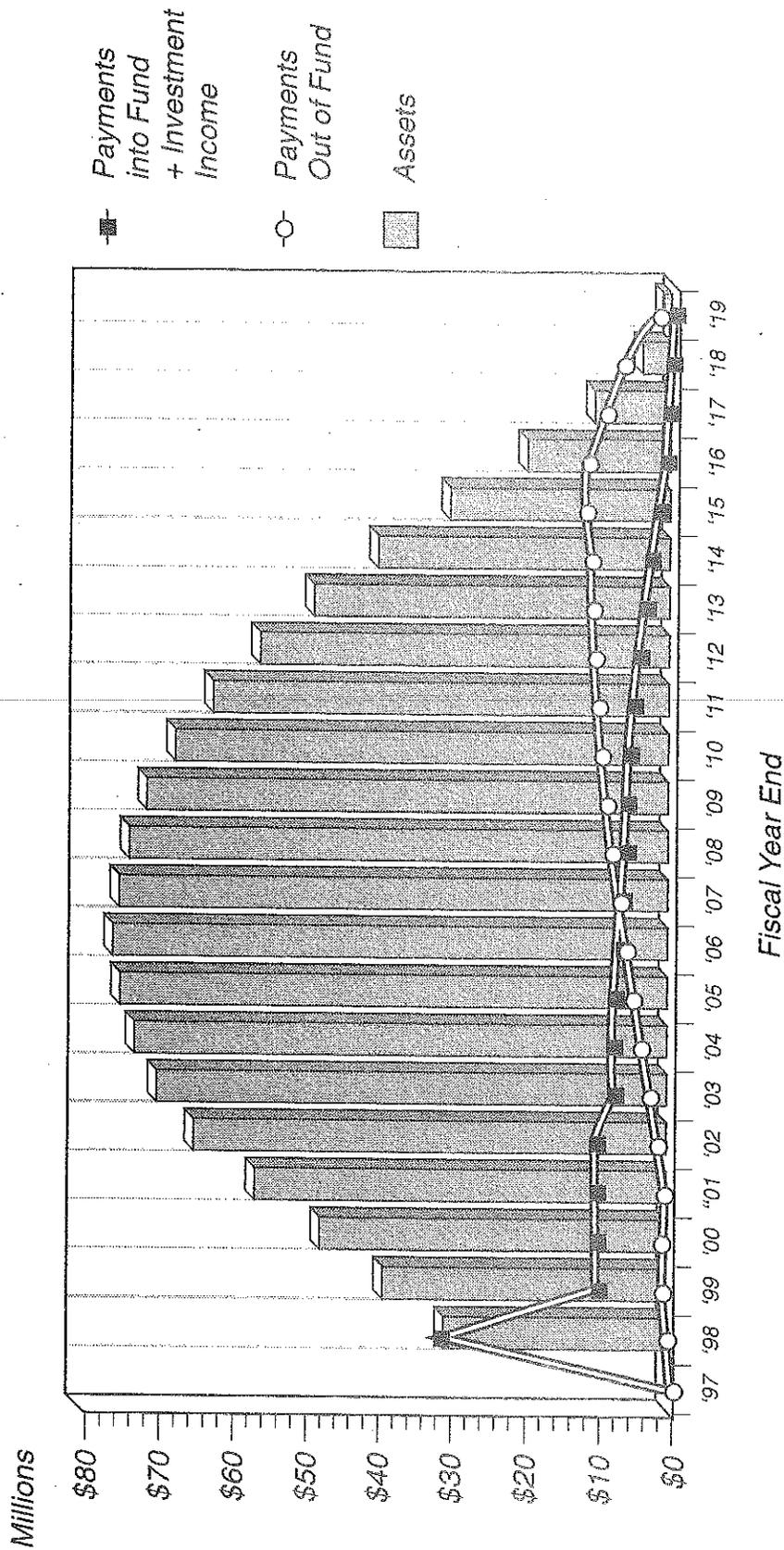
**Total: \$57.3 million**



Liabilities

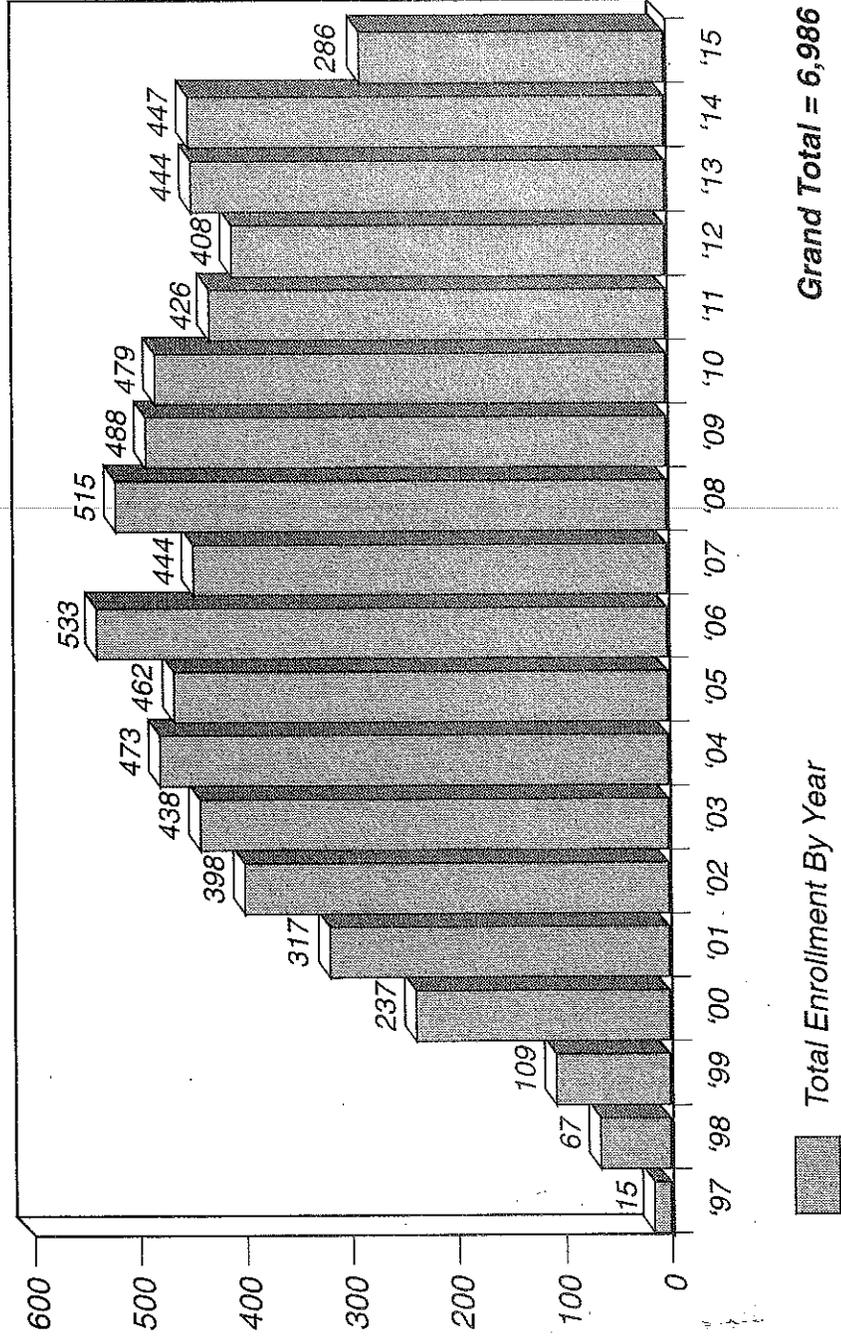
## Cash Flow Projection

The expected income and disbursements of the trust fund, based on the assumptions used in the actuarial valuation, and the current group of contract beneficiaries, are shown below. These amounts are cash amounts, not present value amounts.



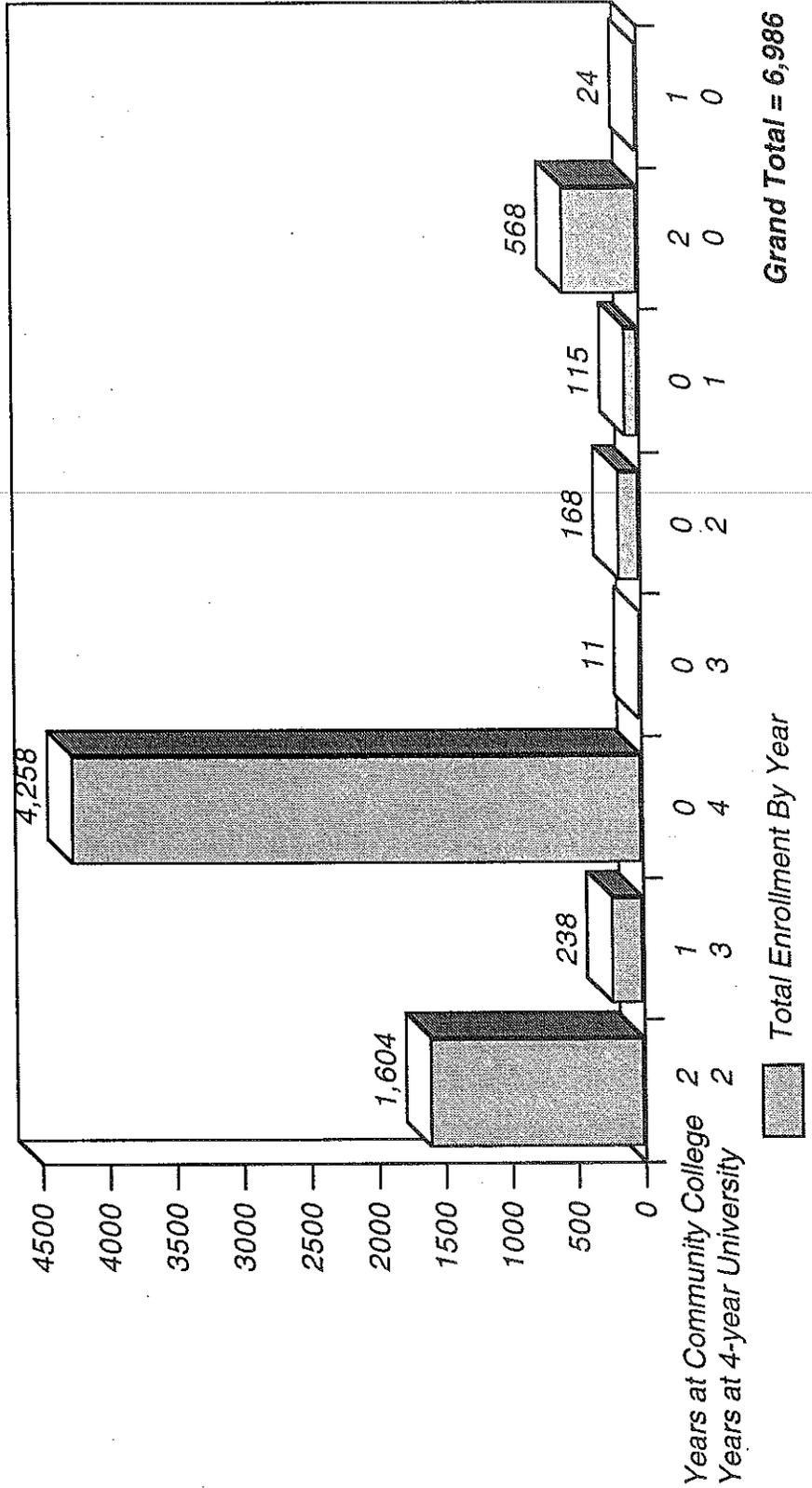
# Contract Sales

Contracts can be purchased for a wide range of ages from infants up through high school seniors. The chart below illustrates the total number of active contracts by expected year of college or university matriculation.



## Contract Sales

Contracts can be purchased for a variety of plans, from one year to four years of tuition and for community college or 4-year university. The chart below illustrates the total number of active contracts by type of plan.



# Historical Tuition/Fee Increases

The average tuition for four-year universities is assumed to increase 7.0% per year. The actual increase from the fall of 1996 to the fall of 1997 was 2.5% (the weighted average tuition, weighted by in-state enrollment, increased 2.8% over the same period from 2,501 to 2,570). The chart below illustrates the actual increases since 1980.



## Historical Comparison: Four-Year Universities

Fall '80	\$803	Fall '86	\$1,588	Fall '92	2,314
Fall '81	882	Fall '87	1,667	Fall '93	2,317
Fall '82	929	Fall '88	1,672	Fall '94	2,371
Fall '83	1,003	Fall '89	1,837	Fall '95	2,399
Fall '84	1,104	Fall '90	1,908	Fall '96	2,426
Fall '85	1,280	Fall '91	2,083	Fall '97	2,487

## ACTUARIAL ASSUMPTIONS

The assumptions used in the actuarial valuation of the trust fund are described below. In our opinion, the assumptions are reasonable for projecting the expected financial results of the trust fund.

Tuition Increases. The Weighted Average Tuition (WAT) for four-year universities and junior/community colleges is projected to increase 7% per annum.

Investment Return. The actuarial valuation of the trust fund was determined using an 8.1% rate of return. The trust fund is exempt from federal income tax.

Administrative Expenses. It was assumed that \$500,000 of administrative expenses will be paid from the investment earnings of the fund. Other administrative expenses of the program are assumed to be paid through fees assessed on purchasers. It was assumed that administrative expenses will increase at the rate of 3% per annum. An additional loan repayment expense of \$500,000 for fiscal year 1999 and \$750,000 for fiscal year 2000 has been assumed.

Enrollment of MPACT Beneficiaries. It was assumed that beneficiaries will attend college/university full time commencing with their expected matriculation date (the Fall following high school graduation). Contract beneficiaries are assumed to attend the various colleges and universities in the same proportion as the headcount information that was used to determine 1997-1998 Weighted Average Tuition with a 3% load added for four-year universities to allow for a bias toward matriculation at more expensive schools.

Contract Cancellations. Contract cancellation decrements were not used.

Future Contract Sales. For the purpose of attribution of administrative expenses to current contracts on a pro-rata basis, it was assumed that there will be a minimum number of active contracts in the future. This assumption has not been used to project future purchaser payments to the fund or tuition payments from the fund.

<u>Fiscal Year Ending</u>	<u>Total Contracts</u>
June 30, 1999	11,000
June 30, 2000	13,500
June 30, 2001	16,000
June 30, 2002	18,500
June 30, 2003 and later	21,000

Deaths and Disabilities. Mortality and disability decrements were not used.

## ACTUARIAL METHODS

The actuarial valuation of the trust fund is based on projections of the tuition and mandatory fee amounts expected to be paid from the trust fund to colleges and universities, and the expected amounts to be paid into the trust fund by contract purchasers. The actuarial valuation is based on the data summarized below which was obtained through the following sources:

- Tuition/Fee Amounts at Four-Year Universities Mississippi Institutions of Higher Learning
- Headcount at Four-Year Universities Mississippi Institutions of Higher Learning
- MPACT Purchasers In Tuition
- Tuition/Fee Amounts at Junior and Community Colleges State Board of Community & Junior Colleges
- Headcount at Junior and Community Colleges State Board of Community & Junior Colleges

MPACT Beneficiaries (Appendix D). 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 D. This information reflects cancellations, deaths and disabilities that had occurred as of the valuation date.

Weighted Average Tuition: Four-Year Universities (Appendix E). The Weighted Average Tuition (WAT) for public four-year universities in Mississippi is the average of tuition and mandatory fees at each of the four-year universities, weighted by 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. A three year average (1995 - 1996) was used to determine the WAT.

Weighted Average Tuition: Junior and Community Colleges (Appendix F). The Weighted Average Tuition (WAT) for junior and community colleges was determined using the same methodology used in the determination of WAT for four-year universities, except the weighting was based on the average full-time headcounts at each college for the 1995 and 1997 fall quarters.

# **Appendices**

# Funded Status

# Appendix A

a.	Market Value of Assets	\$11,681,986
b.	Actuarial present value of future payments expected to be made to the fund by contract purchasers	<u>45,963,673</u>
c.	Subtotal (a + b)	\$57,645,659
d.	Actuarial present value of future payments expected to be made from the trust fund to universities for tuition and mandatory fees, and for administrative expenses attributable to the current enrollment group.	<u>57,305,166</u>
e.	Surplus as of June 30, 1997 (c - d)	<u>\$340,493</u>

# Trust Assets

# Appendix B

Summary of Assets	Book Value	Market Value
Cash	\$12,115,366	\$12,115,366
Fixed Income Securities:		
Domestic	0	0
International	0	0
Equity Securities:		
Domestic	0	0
International	0	0
Accrued Interest	0	0
Accounts Receivable	0	0
Equipment	0	0
<b>Total Assets</b>	<b>\$12,115,366</b>	<b>\$12,115,366</b>
Accounts Payable	0	0
Vouchers Payable	0	0
Warrants Payable	0	0
Amounts Pending	0	0
Accrual for Compensated Absences and Salaries Payable	0	0
<b>Balance as of June 30, 1997</b>	<b>\$12,115,366 *</b>	<b>\$12,115,366 *</b>

\* Includes Administrative Fund balance of \$433,380.

The above information was provided by the MPACT office.

# Trust Assets

# Appendix B

<u>Receipts and Disbursements</u>	<u>Book Value</u>	<u>Market Value</u>
Balance as of July 1, 1996	\$0	\$0
Payments by Contract Holders	11,601,896	11,601,896
Application and Other Fees	435,540	435,540
Other	95,030	95,030
Interest Income	0	0
Dividends	0	0
Gain on Sale of Investments	0	0
Unrealized Gain/(Loss)	N/A	0
Tuition Payments	0	0
Refunds	(14,940)	(14,940)
Other	(2,160)	(2,160)
Asset Management Fees	0	0
Administrative Expenses	0	0
Balance as of June 30, 1997	<u>\$12,115,366</u>	<u>\$.12,115,366</u>

\* Includes Administrative Fund balance of \$433,380.

The above information was provided by the MPACT office.

# Cash Flow Projection

# Appendix C

(amounts are shown in 1,000s)

Fiscal Year End	Payments Into Trust Fund	Payments Out of Trust Fund	Investment Income	Assets at End of Year
06 / 30 / 1997	\$28,536	\$537	\$2,020	\$0
06 / 30 / 1998	7,106	1,205	2,664	30,019
06 / 30 / 1999	7,021	1,759	3,329	38,584
06 / 30 / 2000	6,229	1,354	4,003	47,175
06 / 30 / 2001	5,880	2,263	4,663	56,053
06 / 30 / 2002	2,896	3,364	5,160	64,332
06 / 30 / 2003	2,396	4,710	5,453	69,023
06 / 30 / 2004	2,162	5,872	5,639	72,162
06 / 30 / 2005	1,972	6,841	5,740	74,091
06 / 30 / 2006	1,655	7,853	5,747	74,962
06 / 30 / 2007	1,364	8,378	5,673	74,511
06 / 30 / 2008	1,185	9,215	5,515	73,169
06 / 30 / 2009	860	10,014	5,259	70,654
06 / 30 / 2010	681	10,482	4,913	66,758
06 / 30 / 2011	537	11,325	4,469	61,870
06 / 30 / 2012	388	11,446	3,945	55,551
06 / 30 / 2013	242	11,842	3,344	48,438
06 / 30 / 2014	102	12,512	2,636	40,182
06 / 30 / 2015	0	12,341	1,849	30,408
06 / 30 / 2016	0	10,010	1,115	19,916
06 / 30 / 2017	0	6,877	552	11,021
06 / 30 / 2018	0	3,039	232	4,696
06 / 30 / 2019	0			1,889

**MPACT Beneficiaries**  
All Enrollment Scenarios

Projected Enrollment Year	Plan										Total Enrollment By Year	Percent of Total
	2 YRS. @ Jr. College 2 YRS. @ 4-YR. UNIV.	1 YR. @ Jr. College 3 YRS. @ 4-YR. UNIV.	0 YRS. @ Jr. College 4-YR. UNIV.	0 YRS. @ Jr. College 2 YRS. @ 4-YR. UNIV.	0 YRS. @ Jr. College 1 YR. @ 4-YR. UNIV.	0 YRS. @ Jr. College 0 YRS. @ 4-YR. UNIV.	2 YRS. @ Jr. College 0 YRS. @ 4-YR. UNIV.	1 YR. @ Jr. College 0 YRS. @ 4-YR. UNIV.	0 YRS. @ Jr. College 0 YRS. @ 4-YR. UNIV.	1 YR. @ Jr. College 0 YRS. @ 4-YR. UNIV.		
1997-1998	2	0	12	0	1	0	0	0	0	0	15	0.21%
1998-1999	14	4	39	0	2	3	0	3	4	1	67	0.96%
1999-2000	21	2	72	0	3	5	0	5	6	0	109	1.56%
2000-2001	54	8	138	1	6	5	1	5	24	1	237	3.39%
2001-2002	74	3	189	3	12	8	3	8	28	0	317	4.54%
2002-2003	90	21	239	1	8	2	1	2	37	0	398	5.70%
2003-2004	98	12	272	0	6	6	0	6	43	1	438	6.27%
2004-2005	112	11	278	1	12	8	1	8	50	1	473	6.77%
2005-2006	110	20	264	1	16	7	1	7	43	1	462	6.61%
2006-2007	107	25	334	0	6	7	0	7	50	4	533	7.63%
2007-2008	116	11	249	3	14	6	3	6	43	2	444	6.36%
2008-2009	127	13	317	1	13	10	1	10	32	2	515	7.37%
2009-2010	113	20	301	0	8	9	0	9	34	3	488	6.99%
2010-2011	109	18	298	0	14	5	0	5	35	0	479	6.86%
2011-2012	92	13	274	0	9	4	0	4	31	3	426	6.10%
2012-2013	105	11	253	0	12	7	0	7	19	1	408	5.84%
2013-2014	103	20	270	0	14	4	0	4	33	0	444	6.36%
2014-2015	98	17	278	0	6	11	0	11	33	4	447	6.40%
2015-2016	59	9	181	0	6	8	0	8	23	0	286	4.09%
<b>Totals</b>	<b>1,604</b>	<b>238</b>	<b>4,258</b>	<b>11</b>	<b>168</b>	<b>115</b>	<b>115</b>	<b>115</b>	<b>568</b>	<b>24</b>	<b>6,986</b>	<b>100.00%</b>
<b>Percentage of Total</b>	<b>22.96%</b>	<b>3.41%</b>	<b>60.95%</b>	<b>0.16%</b>	<b>2.40%</b>	<b>1.65%</b>	<b>1.65%</b>	<b>1.65%</b>	<b>8.13%</b>	<b>0.34%</b>		<b>100.00%</b>

# Appendix E

## Tuition Mississippi Four Year Universities

### Annual Tuition and Fees

	ASU	DSU	JSU	MSU	MUW	MVSU	UM	USM	Average	Weighted Average
1980-1981	\$768	\$720	\$750	\$930	\$729	\$750	\$954	\$826	\$803	
1981-1982	825	770	832	1,030	800	800	1,085	916	882	
1982-1983	825	770	900	1,132	800	800	1,167	1,040	929	
1983-1984	875	800	972	1,238	825	850	1,321	1,140	1,003	
1984-1985	975	900	1,072	1,358	925	975	1,401	1,226	1,104	
1985-1986	1,250	1,130	1,172	1,492	1,075	1,200	1,517	1,401	1,280	
1986-1987	1,650	1,480	1,472	1,700	1,475	1,600	1,727	1,600	1,588	
1987-1988	1,650	1,600	1,500	1,778	1,580	1,760	1,780	1,684	1,667	
1988-1989	1,670	1,600	1,500	1,794	1,580	1,760	1,790	1,684	1,672	
1989-1990	1,820	1,734	1,726	1,987	1,780	1,825	1,987	1,834	1,837	
1990-1991	1,870	1,846	1,786	2,061	1,840	1,850	2,059	1,948	1,908	
1991-1992	2,068	2,000	2,029	2,223	2,053	1,952	2,221	2,120	2,083	
1992-1993	2,376	2,194	2,223	2,473	2,239	2,164	2,435	2,404	2,314	
1993-1994	2,376	2,194	2,230	2,473	2,239	2,164	2,456	2,404	2,317	
1994-1995	2,389	2,294	2,380	2,498	2,244	2,189	2,546	2,429	2,371	
1995-1996	2,389	2,294	2,380	2,591	2,244	2,278	2,546	2,468	2,399	
1996-1997	2,389	2,294	2,380	2,631	2,284	2,278	2,631	2,518	2,426	\$2,501
1997-1998	2,429	2,353	2,420	2,731	2,284	2,353	2,731	2,591	2,487	2,570

Abbreviation Key:

- ASU Alcorn State University
- DSU Delta State University
- JSU Jackson State University
- MSU Mississippi State University
- MUW Mississippi University for Women
- MVSU Mississippi Valley State University
- UM University of Mississippi
- USM University of Southern Mississippi

# Tuition

## Mississippi Four Year Universities

### Annual Tuition and Fee Increases

	ASU	DSU	JSU	MSU	MUW	MVSU	UM	USM	Average
1980-1981									
1981-1982	7.42%	6.94%	10.93%	10.75%	9.74%	6.67%	13.73%	10.90%	9.84%
1982-1983	0.00%	0.00%	8.17%	9.90%	0.00%	0.00%	7.56%	13.54%	5.33%
1983-1984	6.06%	3.90%	8.00%	9.36%	3.13%	6.25%	13.20%	9.62%	7.97%
1984-1985	11.43%	12.50%	10.29%	9.69%	12.12%	14.71%	6.06%	7.54%	10.07%
1985-1986	28.21%	25.56%	9.33%	9.87%	16.22%	23.08%	8.28%	14.27%	15.94%
1986-1987	32.00%	30.97%	25.60%	13.94%	37.21%	33.33%	13.84%	14.20%	24.06%
1987-1988	0.00%	8.11%	1.90%	4.59%	7.12%	10.00%	3.07%	5.25%	4.97%
1988-1989	1.21%	0.00%	0.00%	0.90%	0.00%	0.00%	0.56%	0.00%	0.30%
1989-1990	8.98%	8.38%	15.07%	10.76%	12.66%	3.69%	11.01%	8.91%	9.87%
1990-1991	2.75%	6.46%	3.48%	3.72%	3.37%	1.37%	3.62%	6.22%	3.86%
1991-1992	10.59%	8.34%	13.61%	7.86%	11.58%	5.51%	7.87%	8.83%	9.17%
1992-1993	14.89%	9.70%	9.56%	11.25%	9.06%	10.86%	9.64%	13.40%	11.09%
1993-1994	0.00%	0.00%	0.31%	0.00%	0.00%	0.00%	0.86%	0.00%	0.13%
1994-1995	0.55%	4.56%	6.73%	1.01%	0.22%	1.16%	3.66%	1.04%	2.33%
1995-1996	0.00%	0.00%	0.00%	3.72%	0.00%	4.07%	0.00%	1.61%	1.18%
1996-1997	0.00%	0.00%	0.00%	1.54%	1.78%	0.00%	3.34%	2.03%	1.13%
1997-1998	1.67%	2.57%	1.68%	3.80%	0.00%	3.29%	3.80%	2.90%	2.51%
Compounded	7.01%	7.21%	7.13%	6.54%	6.95%	6.96%	6.38%	6.96%	6.88%

#### Abbreviation Key:

- ASU Alcorn State University
- DSU Delta State University
- JSU Jackson State University
- MSU Mississippi State University
- MUW Mississippi University for Women
- MVSU Mississippi Valley State University
- UM University of Mississippi
- USM University of Southern Mississippi

# Appendix E (cont.)

# Appendix E (cont.)

## Tuition Mississippi Four Year Universities

### Resident Enrollment Headcount

	Resident Enrollment Headcount		Average 1995&96	Percent of Total
	Fall '95	Fall '96		
Alcorn State University	2,460	2,611	2,536	7.11%
Delta State University	2,724	3,140	2,932	8.22%
Jackson State University	3,388	3,893	3,641	10.21%
Mississippi State University	8,142	9,708	8,925	25.02%
Mississippi University for Women	1,696	1,899	1,798	5.04%
Mississippi Valley State University	1,890	1,813	1,852	5.19%
University of Mississippi	4,527	6,081	5,304	14.87%
University of Southern Mississippi	7,649	9,713	8,681	24.34%
<b>Totals:</b>	<b>32,476</b>	<b>38,858</b>	<b>35,669</b>	<b>100.00%</b>

Tuition  
Mississippi Community and Junior Colleges

Tuition and Fees by School

	Annual Resident Tuition & Fees	
	1996-97	Increase
Coahoma Community College	\$970	0.00%
Copiah-Lincoln Community College	1,000	0.00%
East Central Community College	1,000	0.00%
East Mississippi Community College	1,000	0.00%
Hinds Community College	1,070	0.00%
Holmes Community College	1,054	0.00%
Itawamba Community College	900	0.00%
Jones County Junior College	792	0.00%
Meridian Community College	1,000	0.00%
Mississippi Delta Community College	950	0.00%
Mississippi Gulf Coast Community College	910	0.00%
Northeast Mississippi Community College	950	0.00%
Northwest Mississippi Community College	1,000	0.00%
Pearl River Community College	850	11.76%
Southwest Mississippi Community College	850	0.00%
Average Tuition:	953	0.70%
Weighted Average Tuition (WAT):	954	0.84%

# Tuition

## Mississippi Community and Junior Colleges

### Appendix F (Cont.)

#### Average Tuition and Fees FY 1984 through FY 1997

Fiscal Year	Average Tuition	Increase	Percentage Increase
1984	\$454		
1985	502	\$48	10.57%
1986	522	20	3.98%
1987	614	92	17.62%
1988	622	8	1.30%
1989	646	24	3.86%
1990	686	40	6.19%
1991	728	42	6.12%
1992	818	90	12.36%
1993	942	124	15.16%
1994	938	-4	-0.42%
1995	938	0	0.00%
1996	953	15	1.60%
1997	960	7	0.73%
Increase over 13 years:			
Percentage Increase FY97 over FY84			111.45%
Percentage Increase Annually FY84 to FY			5.93%
Increase over 10 years:			
Percentage Increase FY97 over FY87			56.35%
Percentage Increase Annually FY87 to FY			4.57%

**Tuition  
Mississippi Community and Junior Colleges**

**Appendix F (Cont.)**

**Resident Enrollment Headcount**

	Fall '95	Fall '97	Average	Percent of Total
Coahoma Community College	1,410	1,457	1,434	2.25%
Copiah-Lincoln Community College	2,790	2,984	2,887	4.54%
East Central Community College	1,800	2,358	2,079	3.27%
East Mississippi Community College	1,876	3,426	2,651	4.17%
Hinds Community College	10,668	10,745	10,707	16.83%
Holmes Community College	2,549	2,968	2,758	4.34%
Itawamba Community College	4,122	4,302	4,212	6.62%
Jones County Junior College	4,828	5,128	4,978	7.82%
Meridian Community College	2,868	3,213	3,041	4.78%
Mississippi Delta Community College	3,931	3,576	3,754	5.90%
Mississippi Gulf Coast Community College	12,393	10,203	11,298	17.76%
Northeast Mississippi Community College	3,915	4,044	3,980	6.25%
Northwest Mississippi Community College	4,889	5,276	5,083	7.99%
Pearl River Community College	3,038	3,049	3,044	4.78%
Southwest Mississippi Community College	1,549	1,900	1,725	2.71%
<b>Totals:</b>	<b>62,626</b>	<b>64,630</b>	<b>63,628</b>	<b>100.00%</b>