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An Evaluation of 529 Savings and Prepaid Tuition Plans

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AN EVALUATION OF 529 SAVINGS AND PREPAID TUITION PLANS

by
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ABSTRACT

JOSHUA RORIE: An Evaluation of 529 Savings and Prepaid Tuition Plans.
(Under the direction of Dr. William Rhodes)

The purpose of this thesis was to evaluate the two types of Internal Revenue Code (IRC) 529 college savings plans: the savings plan and the prepaid tuition plan. The investment returns of the college savings plans and, indirectly, prepaid tuition plans were compared to the current tuition inflation environment to determine which method provided the investor the most favorable return. In addition, the circumstances surrounding prepaid plans that have recently closed to new enrollment were used to evaluate the condition of the prepaid alternative. A sample of state college savings plans returns were examined along with four currently suspended prepaid tuition programs. Two operating prepaid programs, Mississippi and Florida, were also highlighted. A nation-wide observation of college tuition inflation as well as a focus on tuition inflation in the state of Mississippi was used as a benchmark.

The results show that college savings plans often do not provide the ideal investment vehicle during times of rampant tuition inflation. Returns provided by the savings portfolios may not be able to keep up when tuition inflation is multiple times more than general inflation. Prepaid plans are also affected by a turbulent tuition environment. When tuition increases an abnormally high amount from year to year the plans risk not being able to fund future tuition promised to investors. This situation causes the future tuition liabilities to far exceed the assets of the program. This reality has forced some plans to discontinue offering their services.

In conclusion, the best 529 investment vehicle during times of extravagant tuition inflation is the savings plan purchased for a beneficiary who is at a very young age. This

allows the investment to overcome periods of aggressive inflation. In addition, the continuity of the savings plan is not threatened by these external conditions offering investors more security when managing their children's education resources.

TABLE OF CONTENTS

INTRODUCTION.....1

CHAPTER 1 : CHARACTERISTICS OF 529 PLANS
I. Background Information.....2
II. College Tuition Inflation vs. General Inflation.....8

CHAPTER 2: SAVINGS PLANS AND PREPAID PLANS
I. College Savings Plans.....12
II. Prepaid Tuition Plans.....18
A. Actuarial Valuation.....18
B. PremiumPricing.....19
C. Cancelled Prepaid Plans.....20
i. Kentucky.....20
ii. Texas.....26
iii. West Virginia.....33
iv. Colorado.....35
D. Operating Prepaid Plans.....37
i. Mississippi.....37
a. Mississippi Tuition Inflation.....42
ii. Florida.....45

CHAPTER 3: CONCLUSION.....49

BIBLIOGRAPHY.....52

Introduction

One of the major goals for any family is to be able to provide their children the opportunity to attend college. In an effort to assist this endeavor state governments established college savings and prepaid tuition programs that qualified under Internal Revenue Code 529. These programs, with tax advantages supported by the federal government, provided specific means for individuals to save for future tuition.

Recently, trends in the inflation of college tuition rates have introduced an additional burden on families trying to save for future college expenses. The investment returns of the savings plans are having a difficult time matching the tuition increases occurring year after year. The prepaid plans are placed in a position where guaranteed future tuition benefit is becoming an overwhelming burden. As a result multiple plans have been forced to alter features or even suspend enrollment completely.

This research will examine the savings option and prepaid option of 529 college savings plans. Investment returns provided by a sample of savings plans will be documented along with recent tuition prices. A collection of prepaid tuition plans, both active and currently closed to new enrollment will be evaluated.

The purpose of this research is to determine which 529 investment option, the savings plan or the prepaid tuition plan, provides the best investment opportunities during times where tuition inflation is very high from year to year. To illustrate how the issue may influence future 529 plan participants, the impact of elevated tuition inflation on the savings plan, and especially the prepaid tuition plan, will be examined.

Chapter 1: Characteristics of 529 Plans

I. Background Information

Code Section 529 of the Internal Revenue Code (IRC) defines a qualified savings plan as follows:

(a) General rule

A qualified tuition program shall be exempt from taxation under this subtitle. Notwithstanding the preceding sentence, such program shall be subject to the taxes imposed by section 511 (relating to imposition of tax on unrelated business income of charitable organizations).

(b) Qualified tuition program

For purposes of this section—

(1) In general

The term "qualified tuition program" means a program established and maintained by a State or agency or instrumentality thereof or by 1 or more eligible educational institutions—

(A) under which a person—

(i) may purchase tuition credits or certificates on behalf of a designated beneficiary which entitle the beneficiary to the waiver or payment of qualified higher education expenses of the beneficiary, or

(ii) in the case of a program established and maintained by a State or agency or instrumentality thereof, may make contributions to an account which is established for the purpose of meeting the qualified higher education expenses of the designated beneficiary of the account, and

(B) which meets the other requirements of this subsection.

Section 529 establishes the tax benefits received by beneficiaries who participate in a qualified savings plan as follows:

(c) Tax treatment of designated beneficiaries and contributors

(1) In general

Except as otherwise provided in this subsection, no amount shall be includible in gross income of—

(A) a designated beneficiary under a qualified tuition program, or

(B) a contributor to such program on behalf of a designated beneficiary, with respect to any distribution or earnings under such program.

(3) Distributions

(B) Distributions for qualified higher education expenses

For purposes of this paragraph—

(i) In-kind distributions No amount shall be includible in gross income under subparagraph (A) by reason of a distribution which consists of providing a benefit to the distributee which, if paid for by the distributee, would constitute payment of a qualified higher education expense ("Code Section 529. Qualified Tuition Programs").

Per the guidance of Code Section 529 of the Internal Revenue Code, there are two qualified means to save for college education expenses and obtain a preferential tax status. The options available are prepaid tuition plans and college savings plans. Returns that these investment vehicles provide are not taxed as the plans appreciate in value. In addition, withdrawals from the programs that are used for designated education expenses are omitted from income taxation. Along with the preferential tax treatment that Section 529 provides for federal taxation, many states also encourage the use of 529 plans by allowing a deduction from income tax (either in full or a partial deduction) for contributions made to a qualified plan. Contributions are not deductible from income taxation at the federal level ("Section 529 Plans").

The exemption granted to 529 withdrawals from income taxation was scheduled to expire in 2010. However, on August 17, 2006 with the passage of the Pension Protection Act signed by President George W. Bush, the preferential tax status for 529 plans was made permanent ("529 Plan Tax Benefits Made Permanent"; "Now That 529 College Plan Tax Breaks are Permanent...).

College savings plans allow individuals to finance the costs of higher education by enrolling in investment accounts provided by money managers which have partnered

with the applicable state. TIAA CREF and Vanguard are two investment management companies with whom states often collaborate. The plan participant selects a portfolio made up of a variety of investment options that depend on the participant's preferences, such as desired return performance and time available until the funds will be needed. This criteria generally categorizes portfolios on a scale from conservative to aggressive. Aggressive portfolios, where the purchaser desires more return potential, are mostly made up of stock mutual funds where risk is more tolerated. Conversely, a conservative portfolio would be heavily involved in bond mutual funds where there is less risk of loss. These funds offer less return potential but do not hold the high risk that stock-based funds are susceptible of encountering. Many portfolio participants decide the type of portfolio necessary by the age of the beneficiary. Younger beneficiaries are often placed in aggressive portfolios where a higher risk can be tolerated since more time is available to make-up losses that may arise. When the beneficiary becomes close to the age for attending college, the conservative portfolio is then utilized so that gains are maintained and not erased by further volatile investments. This method of investing is often called using an age-based portfolio ("College Savings Plans vs. Prepaid Tuition Plans").

Funds provided by a college savings plan are available to pay a wide variety of college expenses. In addition to tuition and fees, the plan can also purchase room and board, books, and equipment ("College Savings Plans vs. Prepaid Tuition Plans").

The prepaid tuition plan, originating in the 1980s by Florida, Michigan, and Wyoming, was the original college savings vessel offered by state governments (Ifill 5-7). Prepaid plan availability peaked with 19 states offering this style of savings ("Prepaid College Plans Run Into Financial Gaps"). The first college savings program was

implemented by Kentucky in 1990. Now, all 50 states and Washington, D.C. offer a college savings plan ("Section 529 Plans").

Prepaid tuition plans allow individuals to finance the costs of higher education by purchasing college tuition contracts to be used by the beneficiary. The contracts are purchased at current tuition prices and held at these prices until the beneficiary is eligible to attend college. With this form of program the return on investment is the amount by which tuition has increased. The contract with the prepaid tuition plan covers the tuition and mandatory fees required for the student to attend college. In effect, the student is allowed to attend college at the current year's prices and tuition rates from an investment purchased in prior years when the tuition prices were lower. By participating in a prepaid tuition plan, the beneficiary is essentially shielded from unfavorable rises in higher education costs ("Section 529 Plans"; "College Savings Plans vs. Prepaid Tuition Plans").

Prepaid tuition programs invest the funds that they receive from plan participants into stocks and bonds. They use the returns from the program investments to pay the tuition of the beneficiaries as they become eligible to attend college. One of the key factors that the state plans rely on is that their investment activities from the money received from contract purchases will provide a return that is able to at least match the inflation of college tuition prices that they will be required to pay in the future ("Section 529 Plans"; "College Savings Plans vs. Prepaid Tuition Plans").

In the event that the program must be cancelled many state prepaid tuition plans are backed by the full faith and credit of the parent state. This promise of security

provides that in the event of program termination the investor will receive a refund of principal invested and interest equal to current bank savings accounts (Mississippi).

However, with recent spikes in college tuition across the United States coupled with a stock market that has not been as favorable as in the recent past, many prepaid college plans have found themselves in a financial strain. Of the nineteen states that offered prepaid tuition plans, five have resolved to suspending enrollment. The states with suspended plans are Ohio, Texas, West Virginia, Kentucky, and Colorado (Torodova).

This research examined four of the prepaid tuition plans that have been cancelled (Kentucky, Texas, West Virginia, and Colorado). Two operating plans, Mississippi and Kentucky, were also examined. In evaluating these prepaid tuition plans the annual actuarial valuation report and the audited financial statements were reviewed.

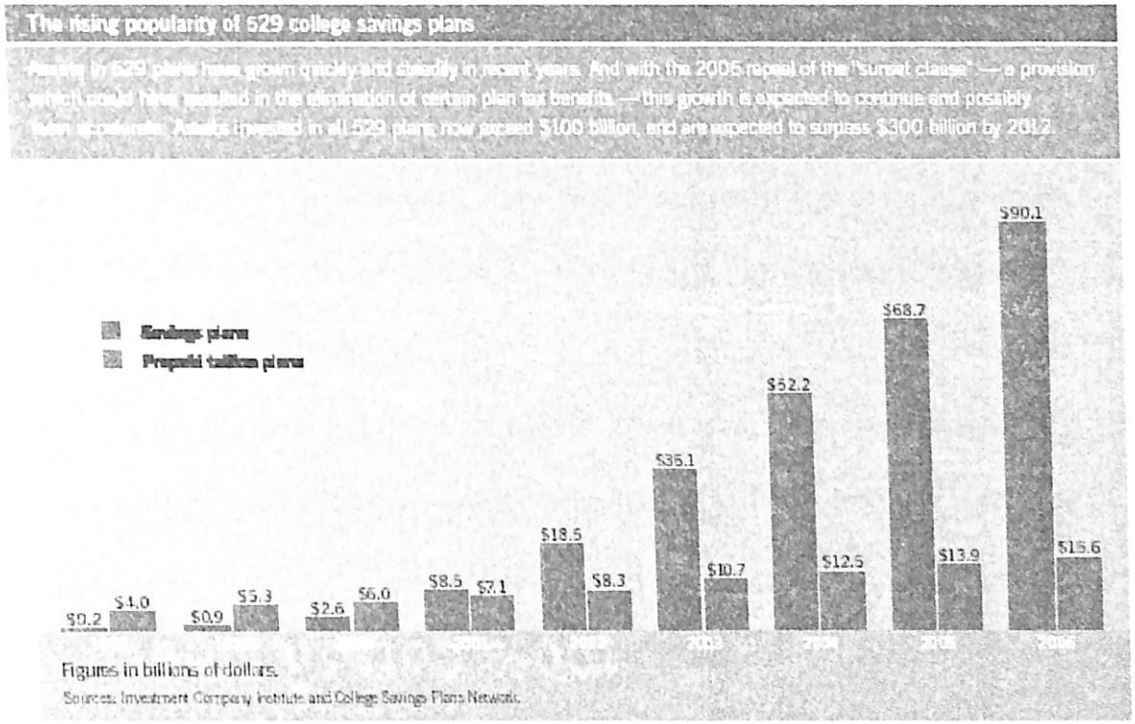
The prepaid option posed a disadvantage at first with respect to the financial aid a beneficiary can obtain in addition to the 529 plans. Up until the Education Reconciliation Act of 2005 payments from a prepaid plan equated a dollar-for-dollar reduction in need for financial aid. At the same time, savings plans were viewed as a contribution of the parents' money. With this classification, only 5.64% of the parents' money is calculated in the financial aid formula. Therefore, a student was eligible for more financial aid if a savings plan was selected. With the passage of the Education Reconciliation Act, which became effective July 1, 2006, the prepaid plans are given the same preferential tax status as savings plans ("Section 529 Plans"; "Bill Could Make Prepaid Tuition Better Deal").

On the other hand, many individuals saving for their children's college education have noticed this discrepancy and shown more interest in the prepaid alternative. With

investor-owned and managed portfolios not performing at a rate to meet soaring tuition inflation, the benefit of a contract that essentially provides returns for the investor that is the inflation rate is much more favorable. During the first five years of the 21st century, for example, tuition and fees increased by 57% at public colleges. As a result of this guaranteed return, many states had record enrollment in their prepaid tuition plans beginning in the 2000s. This is a much different scenario than what occurred in the late 1990s when more schools had a state-sanctioned cap on the tuition rate and the market investment opportunities allowed more favorable returns. In this type of environment, investors were actually limiting their investment return potential to the level of college tuition inflation. This situation proved ideal for the individual college savings programs offered by states (Schmidt; Lankford).

Figure 1 demonstrates the growth in participation of the savings and prepaid plans. The prepaid option was the preferred option from 1998 through 2000. Beginning in 2001, assets in the savings plan surpassed the prepaid plan and has continued to grow at a much faster rate since then. However, participation has grown steadily in the prepaid option with one explanation for the slower growth being that prepaid plans are not offered as widespread as savings plans.

Figure 1



(Mehagian)

II. College Tuition Inflation vs. General Inflation

One of the most important variables used in evaluating college savings plans, as well as evaluating the general college tuition environment, is the inflation rate that tuition experiences from year to year. The rate of college tuition inflation can be measured by two sources.

One measurement of tuition inflation is done annually by the College Board, a not-for-profit organization that assists students and schools by initiating financial aid and enrollment projects across the nation. Using annual tuition inflation rates from 1979 through 2006, the average annual tuition increase according to the College Board figures is 7.32%. The other commonly used measurement of tuition inflation is to use the section of the Consumer Price Index designated for college expenses (Tuition Inflation). This

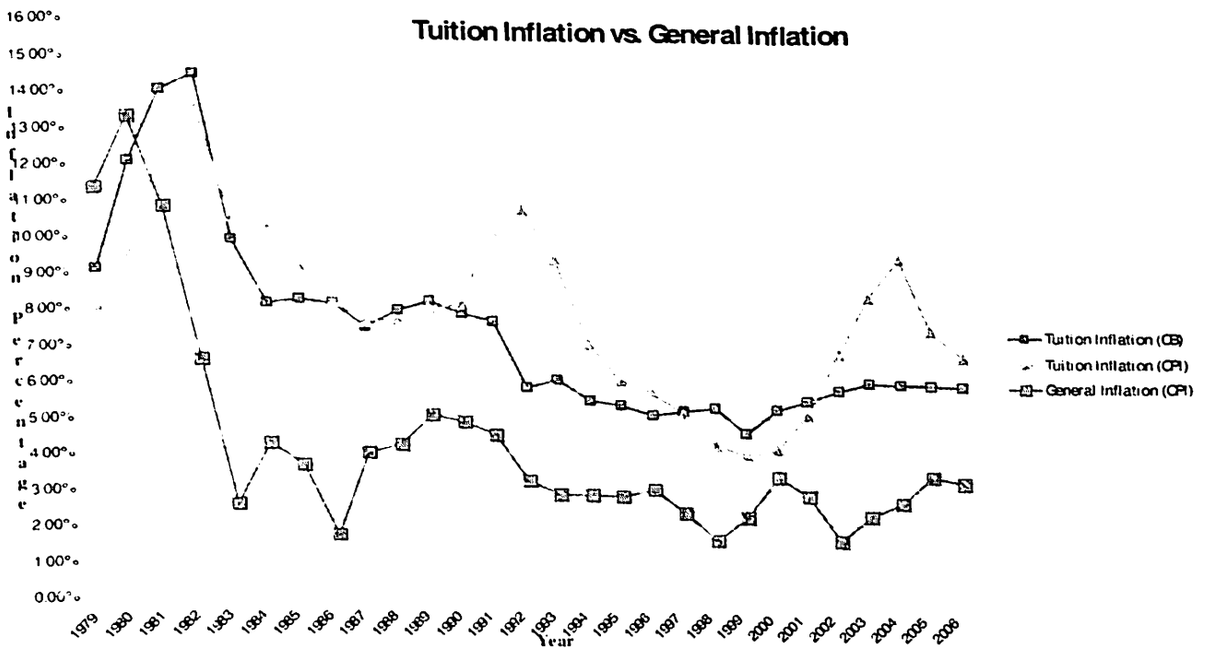
method uses the College Tuition and Fixed Fees component of the "Tuition, other School fees, and Childcare" segment of the Consumer Price Index (CPI). This figure includes expenses for undergraduate as well as graduate studies and allows for tuition costs as well as general fees to be included. The index is computed using data from 87 geographic samples across the United States ("How BLS Measures..."). Annual tuition inflation data gathered from 1979 through 2006 using the CPI figure provides an average inflation rate of 7.95% (Tuition Inflation).

The two independent computations of tuition inflation reveal very similar results. The College Board inflation average is less than 1% lower than the CPI average. This difference is due to the College Board's use of a base year average that is recomputed from year to year. This methodology is different from the CPI calculation where previous years are indexed and remain the same.

The college tuition inflation is often compared to the general inflation that consumers experience. This demonstrates the rate at which tuition prices rise in comparison to the rise in prices for general consumer goods. The general inflation rate is computed as the CPI by the Bureau of Labor statistics. Using annual inflation rates from 1979 through 2006, the average rate of general inflation in the Unites States is 4.13%.

Figure 2 shows the trend in college tuition using both methods of measurement from 1979 to 2006 as well as the rate of the general inflation throughout the same time period. The college inflation rate usually fluctuates in conjunction with the general inflation rate.

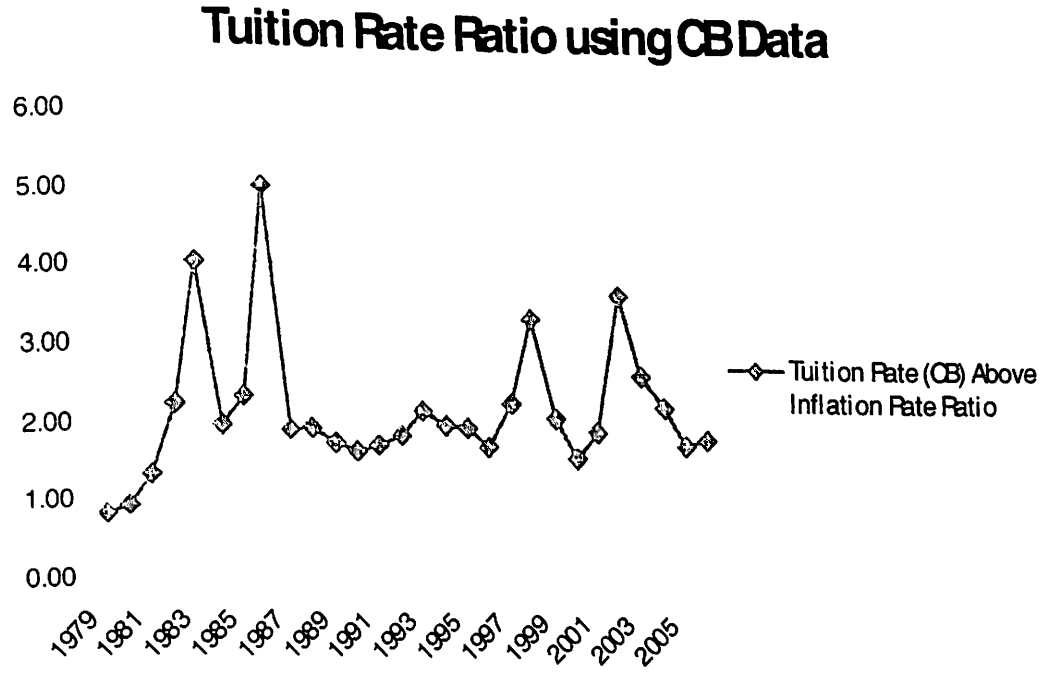
Figure 2



When the rate of inflation for college expenses is compared to general inflation, the college inflation is 2.15 times greater than the general inflation rate using a ratio of the rates from 1979 through 2006. Figure 3 depicts the ratio of college inflation to the general inflation. As demonstrated by the graph there have been two recent spikes in this ratio where tuition inflated at a rate of more than three times the general inflation. These spikes occurred in 1998 and 2002. The Taxpayer Relief Act of 1997 introduced the Hope Scholarship and Lifetime Learning Credits effective in 1998. The Bennett Hypothesis, proposed by Secretary of Education William Bennett, states that the main effect of student aid is to cause colleges and universities to increase tuition. Perhaps the Bennett Hypothesis explains this tuition spike (Bennett). For tax years 1998-2002, the maximum credit was $1,500. The education credits were indexed for inflation for academic years beginning after 2002, which could explain the 2002 spike (Notice 97-60...). "On average, tuition tends to increase about 8% per year. An 8% college inflation rate means that the

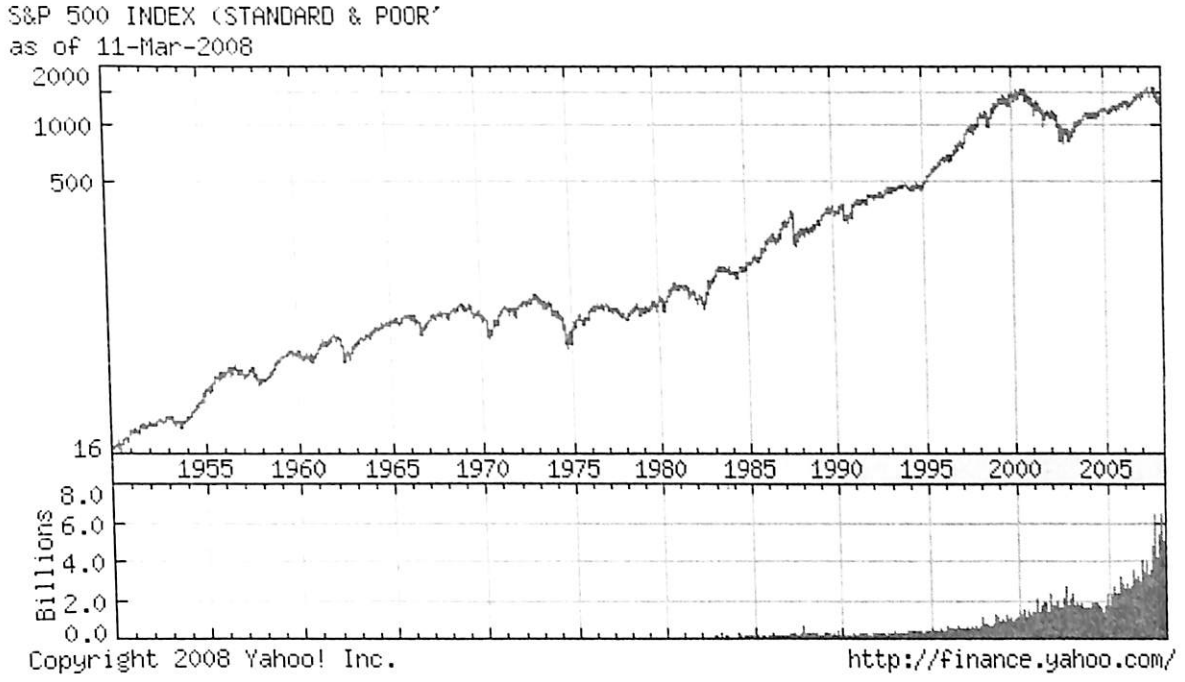
cost of college doubles every nine years. For a baby born today, this means that college costs will be more than three times current rates when the child matriculates in college" (Tuition Inflation).

Figure 3



At the same time of increased inflation for college tuition, the stock market endured a period of declining prices during 2001through approximately 2004. The slowing stock market during this period provided meager investment returns to counter the widespread tuition increases. Figure 4 depicts this period of decrease. The S&P 500 had returned back to levels obtained prior to the decline in prices in 2007.

Figure 4



(S&P 500 Index)

CHAPTER 2: SAVINGS PLANS AND PREPAID PLANS

I. College Savings Plans

In Table 1 below is a sample of 35 State college savings plans with general information about each plan. These details about the plans provide a basic comparison of features that are often highlighted by the programs.

The first column about each plan points out any residency requirements that a particular program may have. Most of the plans offered are not bound by state requirements, giving the investor a tremendous amount of options to choose from when picking a plan. However, some of the options do come with resident stipulations. For example, some plans require that the plan holder or beneficiary of the plan is a resident of the host state at the time of the plan's inception. The state income tax provisions can also make investing in the state of residence more appealing.

The next detail that is highlighted in the table is the maximum contributions that the plan allows. Most of the plans have around a $300,000 cap on funds. This amount is usually per beneficiary, so multiple plans cannot combine to more than this maximum figure.

The table then lists any fees that the investor incurs when selecting the plan. Management fees and maintenance fees are the two main types of fees that an investor may face. The maintenance fee is provided as a yearly rate and reflects any fees that are charged by the fund manager to operate the funds. The management fee is given as a percentage. This fee, calculated by multiplying the rate by the assets held in the fund, increases as the fund grows in value. The management fee is charged in order for the fund manager to keep the funds optimally allocated. While a majority of plans do not charge an annual maintenance fee, the management fee is common among the programs. The percentage of management fees assessed varies between .15% and 1%.

The next topic covered in the characteristics table is a contributions match on investments. Some plans, in an effort to aid families with a low level of income, have implemented an annual match on contributions limited to predetermined amounts. Most plans do not participate in supplying funds to accounts.

The last column shows if a prepaid tuition plan exists for the states selected for analysis. Ten of the states selected have a prepaid program in place. States which offer both a savings plan and a prepaid plan allow for individuals to participate in both ("Compare College 529 Savings Plans")

Table 1 – Savings Plan Characteristics By State

State	Residency Required	Maximum Contributions	Maintenance Fee	Management Fee	Contribution Match	Prepaid Alternative
Alaska	None	$320,000	$25/yr	0.28%	None	Yes
Arizona	None	$304,000	None	.30 - .50%	None	No
Arkansas	None	$245,000	$20 nonres	0.85%	None	No
Colorado	None	$280,000	$20 nonres	0.75%	$500/yr. 5yr	No
Connecticut	None	$300,000	None	0.65%	None	No
Delaware	None	$300,000	None	.30 – .50%	None	No
D.C.	Yes	$260,000	$15/yr	0.15%	None	No
Florida	None	$341,000	None	0.75%	None	Yes
Georgia	None	$235,000	None	0.78%	None	No
Hawaii	Yes	$305,000	None	0.95%	None	No
Idaho	None	$310,000	None	0.70%	None	No
Illinois	None	$235,000	None	0.99%	None	Yes
Kentucky	None	$235,000	None	0.80%	None	Yes
Louisiana	Yes	$224,465	None	None	2-14% cont.	No
Maine	None	$320,000	None	0.50%	Max $200	No
Maryland	None	$250,000	$25	0.28%	None	Yes
Massachusetts	None	$300,000	None	.30-.50%	None	Yes
Minnesota	None	$235,000	None	0.65%	$300/yr	No
Mississippi	None	$235,000	None	0.70%	None	Yes
Montana	None	$304,000	None	1.59-2.05%	None	No
Nebraska	None	$300,000	$20	0.60%	None	No
Nevada	None	$310,000	$20	0.65%	None	Yes
NewHampshie	None	$300,000	None	.30-.50%	None	No
New Jersey	Yes	$305,000	None	0.40%	$1,500 sch.	No
New Mexico	None	$294,000	$25 nonres	0.25%	None	No
New York	None	$235,000	None	0.55%	None	No
Ohio	Yes	$306,000	None	.05-.88%	None	No
Oklahoma	None	$300,000	None	0-.65%	None	No
Oregon	None	$250,000	$20 nonres	0.20%	None	No
Rhode Island	Yes	$330,690	None	None	$500	No
SouthCarolin	Yes	$277,000	None	0.20%	None	Yes
South Dakota	Yes	$325,000	None	None	None	No
Tennessee	None	$235,000	None	0.80%	None	Yes
Texas	Yes	$257,460	None	.45-1.0%	None	No
Utah	None	$319,00	$25 nonres	.25% quarter	Beg. Match	No

The most important criteria used in evaluating the plans offered by the various states are the investment returns that they are capable of providing. The following two charts show investment returns for the selected states' college savings plans. Table 2 provides returns for the program's age-based portfolios while Table 3 demonstrates returns generated by the static portfolios. The returns are provided on one, three, and five year time frames where available. These returns were generated in February of 2007 (Compare College 529 Savings Plans).

Table 2 – Savings Plan Age-Based Portfolio Returns

State	1 Yr. Avg.	3 Yr. Avg.	5 Yr. Avg.
Alaska	12.67%	9.74%	6.92%
Arizona	9.51%		
Connecticut	9.87%		
Delaware	9.87%	7.10%	5.47%
D.C	3.64%	5.22%	
Florida	8.33%	5.53%	
Hawaii	8.09%		
Idaho	9.64%		
Illinois	9.05%	6.71%	5.84%
Kentucky	8.59%	7.64%	
Louisiana	8.88%	6.94%	6.27%
Maine	7.97%	7.26%	6.06%
Maryland	12.20%	9.30%	
Massachusetts	9.20%	6.82%	5.43%
Minnesota	9.66%	8.11%	
Mississippi	10.68%		
Nebraska	8.14%	6.63%	5.79%
New Hampshire	9.36%	7.07%	5.57%
New Jersey	9.44%	9.09%	
New York	7.50%	6.17%	
Ohio	8.31%	7.64%	
Oklahoma	9.52%	8.23%	
Oregon	7.44%		
South Dakota	10.55%	7.36%	
Tennessee	9.04%		
Texas	9.67%	6.23%	
Utah	9.37%		

The one-year data gathered at the beginning of 2006 provides a very optimistic outlook for the college savings plan. In this time period, a majority of plans experienced roughly a 9% gain for age-based plans. When the scope is widened to a five-year range of returns, however, the average return is around 5.9%. Similar results occurred in the static plan. The one-year analysis showed multiple plans experiencing 10% gains. Once the

data was spread over a five-year period, the average decreased to slightly better results than the age plan. These investment returns are much lower than the average tuition rates experienced over the past three decades.

Table 3 – Savings Plan Static Portfolio Returns

State	1 Yr. Avg.	3 Yr. Avg.	5 Yr. Avg.
Alaska	9.93%	8.32%	7.26%
Arizona	9.82%		
Arkansas	7.74%		
Colorado	7.87%		
Connecticut	10.22%		
Delaware	9.84%	7.55%	5.85%
D.C	1.63%	3.59%	
Florida	7.37%	4.79%	
Georgia	9.58%	7.24%	
Hawaii	9.09%		
Idaho	10.60%	8.17%	5.55%
Illinois	7.37%	5.13%	5.37%
Kentucky	8.90%	7.64%	7.91%
Maine	8.11%	6.97%	7.11%
Maryland	9.94%	7.29%	
Massachusetts	9.74%	0.0768	5.93%
Minnesota	10.59%	8.66%	6.78%
Mississippi	10.70%	8.16%	
Nebraska	9.93%	9.30%	
Nevada	8.15%	7.05%	
New Hampshire	9.76%	7.48%	5.78%
New Jersey	9.33%	7.81%	
New Mexico	8.21%		
New York	8.10%	7.78%	
Ohio	9.46%	11.89%	
Oklahoma	10.13%	8.31%	6.49%
Oregon	9.11%		
South Dakota	13.97%	9.90%	
Tennessee	14.86%	11.41%	
Texas	10.00%	7.57%	
Utah	7.97%		

II. Prepaid Tuition Plans

A. Actuarial Valuation

The main reason that many state-sponsored prepaid tuition programs are forced to suspend enrollment in their plans is due to a growing deficit in their actuarial valuation. When a Plan determines its future liabilities (an estimate of how much money it will have to pay for all beneficiary future college expenses), it usually uses a valuation that is calculated with the help of an actuary. The actuary determines this future expense by estimating the college tuition inflation and the investment return percentage. The college tuition inflation estimate allows the actuary to estimate how much college tuition will increase year after year. The inflation rate demonstrates how expenses could grow in the future and provides a means to calculate a total sum that will have to be paid. The investment return percentage is an estimate of how successful the investment efforts of the plan will be. The return percentage estimate allows the actuary to determine how funds will grow and provides a means to calculate a total estimated income from investments. This income derived from invested funds is used to pay the tuition liabilities as they come due.

An actuarial valuation that results in a deficit means that the Plan's estimated future tuition liabilities exceed the Plan's estimated future income (new contract purchase income and investment income). Using this valuation method, two situations can occur where an actuarial valuation would result in a deficit. One situation that would produce an unfavorable valuation estimate would be when college tuition inflation increases at a large rate. This increase in inflation would result in a very large liability due to future college tuition payments being considerably higher than if a normal rate of tuition were

experienced. The second situation that would result in a deficit actuarial valuation would be when investment return percentages are lower than estimated when determining the valuation. This low investment return rate would result in less income being received from investment efforts. With investment incomes being a main source that the Plan uses to finance tuition payments in the future, an amount of income that is less than expected would result in an unfavorable valuation.

Recently, there have been instances of both abnormal college tuition inflation and less than favorable investment return rates. This combination of factors has resulted in multiple states suspending enrollment in their Plans indefinitely.

With the tuition inflation level being one of the key factors in determining how actuarially sound a Plan is, a state-sponsored cap on inflation has proved vital with some States keeping their plans open for enrollment. At least two states, Texas and Ohio, have cited that removing the inflation cap on their respective state aided in the state suspending enrollment in their plan (Kim).

B. Premium Pricing For Prepaid Plans

One alternative to suspending enrollment that prepaid tuition plans have begun to use is offering their contracts at a premium price. Using this method, contracts are valued according to current tuition prices with an additional premium charge added to the total. Many states have begun to use this pricing model. For example, Maryland raised contact prices 18-27% in 2003 above the previous years cost in response to a dramatic increase in the state's tuition rates. The added costs that these premiums place on contracts essentially increases the tuition price prepaid and may limit the appeal that the plans hold for beneficiaries who are closer to college enrollment. The state of Ohio added a

premium to their plan contracts in an effort to combat dwindling fiscal health. This premium charge was so high that Jacqueline Williams of the Ohio Tuition Trust Authority warned "...people with kids over age 14 not buy it because it would take four years to recoup their investment" (Lankford). Many state officials are concerned that placing such premiums on tuition contracts place the plans out of the reach of low and middle income families (Lankford; "Prepaid College Plans Run into Financial Gaps";Kim).

C. Cancelled Prepaid Plans

i. Kentucky

Kentucky's Affordable Prepaid Tuition Plan (KAPT) was established by the Kentucky General Assembly in 2000 as an effort to assist families in providing postsecondary education to their children. Investors in the plan purchase tuition contracts at today's tuition rate. When the beneficiary attends college, the tuition will be covered by the prepaid contract and the beneficiary will be shielded from any inflation to which the cost of higher education may have been subject. The prepaid contracts are divided into three categories: The Value Plan. The Standard Plan, and The Premium Plan.

The Value Plan offers a prepaid contract for one or two year's tuition at a community college or technical college. The Standard Plan offers a prepaid contract for one to five year's tuition in Kentucky's public university system. The price for this contract is based on Kentucky's most expensive public university. The Premium Plan offers a prepaid contract for one to five year's tuition in Kentucky's private college and university system. The price for this contract is based on a weighted average of tuition at Kentucky's private schools. The majority of Plan participants (92%) purchase the

Standard plan. The Value Plan makes up 5.7% of the program, and the Premium Plan makes up the remaining 2.4%.

The beneficiary of the KAPT plan must be a resident of the State of Kentucky at date of enrollment or plan on attending a Kentucky college or university. The Plan is not restricted to attendance at a college or university located in Kentucky. The beneficiary may use the funds to attend any United States Department of Education accredited institution. However the funds provided for attendance cannot rise above the funds needed to attend a Kentucky institution.

The strategy of the Plan is to invest received funds and produce a return that is above the inflation of college tuition. In an effort to achieve this, the Plan has an investment allocation of 45% Large Cap United States stocks, 25% Inflation Indexed bonds, 15% corporate bonds, 10% Small to Mid Cap United States stocks, and 5% Non-U.S. Stocks. The Plan holds an annual assumption that all funds will generate a 7.76% return.

As part of estimating the Tuition Benefit Payable, the Plan attempts to forecast the level of college tuition inflation. This forecast uses the known amount of inflation for the upcoming academic year and projected inflation for the following years. For 2006, the Plan used an 11% inflation rate for the 2007-2008 academic year, a 10% inflation rate for 2008-2009, and a flat rate of 7.0% for all following years. The forecasted expense due to tuition inflation increased this year due to the spikes in the estimates of tuition. For example, the institution on which a majority of payout estimates are based, The University of Kentucky, experienced a 12% hike in tuition for the 2006-2007 academic year.

The Plan has access to the Kentucky Abandoned Property Fund as a tool to offset the liabilities generated. The Plan can use up to 75% of the Fund to finance any deficit it incurs as established by KRS 393.015. The Plan used this available resource in December 2005 when it transferred $13,700,100 from the fund to address the Plan's deficit. At the end of June 2006, the Abandoned Property Fund held $258,816,103 in resources.

For the fiscal year ending on June 30, 2006, the KAPT Plan had a $20,309,238 deficit. This underfunded status rose from the previous year, which had a deficit of $6,623,928. One of the main causes of the increase in the Plan's deficit was due to a loss from unfavorable tuition inflation totaling $6,061, 647. This loss calculated in the deficit results from estimated tuition inflation adjustments increasing for the year. Also a factor in the deficit increase was a $1,317,903 loss due to unfavorable investment returns.

Table 4

	21
Deficit at June 30, 2005	($6,623,928)
Projected Increase to June 30, 2006	(157,959)
Loss due to Unfavorable Tuition Inflation	(6,061,647)
Loss due to Unfavorable Investment Experience	(1,317,903)
Gain due to Additional Contract Sales	0
Changes due to Change in Assumptions	(5,806,459)
All Other Changes	(341,342)
Deficit at June 30, 2006	($20,309,238)

Year End June 30, 2005

For the fiscal year ending on June 30, 2005, the KAPT Plan had net assets valued at $140,244,433 and actuarially determined liabilities of $146,868,362 resulting in a deficit of $6,623,928. The plan held the assumption that all investments would yield a 7.76% return. The Plan assumed that for academic years 2006-2012 tuition would increase at a rate of 7.5%. For the academic years 2012-2014 an inflation assumption of 7.25% was used with 7.0% being the average increase in all years thereafter. "The tuition inflation assumptions are based on a combination of statistical models of tuition increases and on actuarial judgment. Our statistical models use information from the past 20 years" (Kentucky).

Beginning at the start of this fiscal year contracts were sold at a 7.5% premium. The actuary has estimated that an open enrollment period with 3,000 contract sales in a year would eliminate the actuarial deficit in as little as two years.

Using the status of the Plan at the end of 2005 the actuary has estimated that the assets and future revenues will be able to sustain the payment of benefits up to the year 2024, when it is estimated that all assets and investments will be wiped out and no revenues will remain to pay the liabilities.

Table 5

Deficit at June 30, 2004	($13,700,051)
Projected Increase to June 30, 2005	(807,756)
Loss due to Unfavorable Tuition Inflation	(4,544,184)
Loss due to Unfavorable Investment Experience	(554,839)
Gain due to Additional Contract Sales	542,127
Changes due to Change in Assumptions	(1,249,324)
Transfer from Unclaimed Property Fund	13,700,100
Deficit at June 30, 2005	($6,623,928)

Year End June 30, 2004

For the fiscal year ending June 30, 2004, the Plan had net assets of $89,964,665 and total actuarial liabilities of $103,664,716 resulting in a deficit of $13,700,051. The deficit of the Plan is alleviated by help from the $28,339,000 KAPT Reserve, funded by the Unclaimed Property Fund. The Plan assumes a return on investment of 7.76% per

year. KAPT holds that tuition will increase at a rate of 7.5% from academic years 2005-2011 with a 7.0% assumption for all following years (Kentucky).

Table 6

Deficit at June 30, 2003	($10,700,000)
Projected Increase to June 30, 2004	(776,000)
Loss due to Unfavorable Tuition Inflation	(7,415,450)
Gain due to Favorable Investment Experience	6,358,009
Changes due to Additional Contract Sales	0
Changes due to Change in Assumptions	(1,166,610)
Deficit at June 30, 2004	($13,700,051)

In 2005, two events took place that greatly improved the current status of the KAPT program. The first event was that new contracts were sold during this fiscal year. The one-year period of selling new contracts provided a gain of $542,127 in calculating the actuary deficit. New contracts were not sold in either of the two other years examined and thus the deficit did not benefit from the additional sales with an added premium charge.

The second event that boosted the program in 2005 was the influx of capital from the Unclaimed Property Fund. This transfer of approximately $13.7 million essentially eliminated the plan's deficit as of the end of 2004. With vast resources to eliminate the deficit multiple times over, this Fund is a key tool available to the program. The ability to depend on this Fund would help keep the plan secure should tuition inflation continue.

These two factors allowed the plan's deficit to decrease to approximately $6.6 million in 2005. The immediate benefits of these features are noticed in the calculation of the 2006 deficit. Without a capital outlay from the Abandoned Property Fund or a gain from selling new contracts at a premium, the deficit of the plan rises the following year by about $13.6 million.

In 2006, the plan adjusted the anticipated tuition inflation to more closely mirror realistic tuition trends. Prior to the adjustment, the program assumed future tuition increases of 7% to 7.5%. The new calculations imputing tuition increases in the double digits for the next three years before leveling off to the 7% range negatively impacted the deficit by around $1.5 million.

ii. Texas Guaranteed Tuition Plan

The state of Texas established the Texas Guaranteed Tuition Plan, originally called the Texas Tomorrow Fund, in May 1995, with the passage of House Bill 1214. The program began full enrollment in January 1996. The seven-member Texas Prepaid Higher Education Tuition Board governs the Plan and monitors the investment of contract payments. Participants in the plan have the opportunity to purchase education plans containing up to 160 credit hours which cover tuition and required expenses that are mandatory for the student to enroll. Supplemental expenditures such as housing and textbooks are not covered in the prepaid plans. The tuition payments provided by the plan are guaranteed by the state of Texas through a Constitutional amendment providing full faith and credit of the state. This reassuring component of the Plan was voted into law in November 1997.

In 2003, the Texas Prepaid Higher Education Tuition Board suspended enrollment of new applicants in the plan following new state legislation that initiated the deregulation of public college tuition rates. The unpredictability of future college tuition resulting from this unregulated environment affects the program's effectiveness in calculating the future benefit liability the plan must pay.

The various plans offered are the senior college plan containing 160 credit hours, the private college plan offering 160 hours, the junior college plan containing 64 credit hours, and a joint junior-senior college plan offering a total of 128 credit hours with those hours evenly divided among a junior or vocational school and a senior school. The majority of plan participants purchase the senior college plan with an 84.36% enrollment. The university with the most beneficiary enrollment is Texas A&M University College Station with 2,548 participants. Through the lifetime of the Plan more than 150,000 contracts have been purchased.

In 2003, the Texas Legislature approved changes where the Plan would pay tuition and fees for beneficiaries enrolled in the senior college plan amounting to either the fees required at the beneficiaries' chosen school or the weighted average tuition of all public senior colleges in the state of Texas, whichever was lower. This statutory change helped the Plan to realize less expense on those contracts since the college or university was required to accept either their fee rate or the calculated average as payment in full.

The future tuition obligation is calculated, with adjustments made for tuition increases and plan cancellations, by recording the contract benefit payable using the actuarial present value. For the 2007-2008 academic year, the Plan assumed a tuition inflation rate of 7.5% for both senior public colleges as well as junior colleges. For

private universities, the inflation rate used was 6.5%. This rate was assumed to remain constant for future academic years. In 2006, the average tuition for public universities increased 8.7%. This higher tuition cost realization caused the future tuition obligations calculated by the actuary to increase by $67,279,764.

The overall goal of the plan is to pay the future tuition fees of the beneficiaries by investing the funds received from the purchase of contracts and earning a satisfactory return overcoming the inflation of college tuition. In order to achieve this goal the Plan has numerous investment options available. Some of the options most heavily invested include an Equity package with a carrying value of $561,530,012, International Equity with a carrying value of $328,908,700, and a Securities Lending Collateral Investment Pool with a carrying value of $286,977,435. The Securities Lending Pool is a partnership with Northern Trust Company, the investment custodian for the Plan. This agreement allows for the Plan to loan out different securities it holds, including stocks and bonds, and obtain a return on the collateral received on the loan. Through these investments, the Actuary for the Plan assumes an investment return of 8.25%. In 2006 the return on investments was 8.64%, helping slightly offset the decrease in net assets caused by tuition inflation hikes.

The plan has an unfunded liability of $110,337,073.41. This liability "represents the difference between the sum of the market value of the assets and the present value of the expected future contract payments and the sum of the present value of the expected future tuition and required fees, refunds, and expenses" (Texas). During the fiscal year 2006, the net assets decreased $5.75 million. Major causes cited for this deficit include record tuition inflation years over the 2002-2005 academic years and unfavorable stock

market performance during 2000-2002. It is assumed by the Actuary and Investment Counsel that a future calming of college tuition and a more favorable stock market will eliminate the current liability.

Fiscal Year end August 31, 2005

The plan's investments had a 14.3% return in 2005 which was considerably higher than the 8.25% assumption. Investment revenue, net of investment expenses, totaled $193,413,437 in 2005.

In 2005, the future contract liability amounted to $2,029,545,584, a favorable decrease of $17,715,480. This decrease was largely due to the better performance of investment returns along with an actual tuition increase lower than estimated. The estimated tuition inflation level for fall of 2005 was 10%, but it actually only increased 8.4% for the year. For the fall of 2004, the tuition inflation was 13.2% above spring 2004 numbers.

The total liabilities of the plan exceeded total assets by $107,744,515 in 2005. This position is much better than the $222,852,297 deficit experienced in 2004. This more favorable outcome is largely due to the mentioned decline in contract liability along with an increase in assets from the favorable investment performance.

The plan did not use any bias factors in determining the future contract liability because of the 2003 legislation that eliminated the bias presence. The new law required colleges to accept the lesser of the actual tuition and fees required by the school or the weighted average of all senior colleges in the state as full payment for the beneficiary to attend. This effectively eliminated any price differentiation among the in-state schools by

placing a ceiling on the amount the plan would have to pay equal to the weighted average of tuition.

Table 7

Assets		
Investments	$1.575.387,296	
Est. future Contract	346,413,773	$1,921,801,069
Future benefits liability and expenses		2,029,545,584
Deficit, August 31, 2005		($107,744,515)

Year End August 31, 2004

This fiscal year for the program was the first year in which no new contracts were issued due to the programs suspension of enrollment relating to the deregulation of tuition inflation. As a result, revenues from contract sales amounted to $21.7 million in 2004, a 94% decrease. This change followed a year that experienced the second largest enrollment period in plan history.

The effect of the changed tuition atmosphere was felt immediately by the program. In the fall of 2003, average tuition increased 7.6% at Texas public senior colleges and then increased an additional 8.7% more in the spring of 2004. The result of this spike in tuition rates caused the estimated benefit liability to increase by $80,940,052. The estimated tuition obligation at the end of fiscal 2004 totaled $2,047,261,064.

The plans investment yielded a 10.3% return, outperforming the expected 8.25% rate producing net investment revenues of $120,487,371. The plan once again assumed a 10% increase in tuition inflation for the 2005 academic year, with a 7.5% increase in years following. Total liabilities of the plan exceeded total assets by $222,852,297. For 2004 total liabilities were $2,047,261,064 while total assets were $1,824,408,767. The deficit for 2004 decreased $13,231,457 from the deficit experienced in 2003.

In 2004, the actuary, in an attempt to calculate the present value of tuition liabilities, used a concept of "selection against the plan". Using this thought process in determining the future tuition payments that the program expects to make, the plan realizes that a bias may exist in college selection. When a beneficiary of the Texas plan becomes eligible to attend college, the program pays the tuition and required fees to the school selected by the participant. This choice of colleges where the tuition has been prepaid may lead the student to select the more expensive school. When this occurs, the program is forced to pay an amount larger than if no bias existed in school selection. To account for this additional expense, the actuary adds a bias load of 3% for universities and 15% for community colleges when determining the liability (Texas).

Table 8

Assets		
Investments	$1,342,695,201	
Est. future Contract	481,713,566	$1,824,408,767
Future benefits liability and expenses		2,047,261,064
Deficit, August 31, 2004		($222,852,297)

The deregulation of tuition by the Texas state legislature proved to be a fatal blow for the prepaid program. The year after the state removed control of tuition prices and allowed the individual schools to set their own tuition fees, the plan closed to new enrollment. The plan's fear that rampant tuition inflation would follow the new authority given schools was correct - tuition increased by a total of 16.3% in the first academic year. Tuition inflated another 13.2% beginning the next academic year.

The Plan appears to fairly value the tuition liability in assuming tuition inflation and investment returns. For example, when tuition became deregulated for the 2004 academic year the program responded by increasing the tuition inflation assumption to 10%. The anticipated investment returns of the program were 8.25% during the years evaluated. The plan's investments earned a better return all three years, with a double digit return in two of the three years examined.

iii. West Virginia's College Prepaid Tuition and Savings Program

West Virginia's College Prepaid Tuition and Savings Program was established in 1997 when the Legislature passed the West Virginia Prepaid Tuition Trust Act. The Act was created as an effort to aid West Virginia residents trying to finance a college education for their children. Originally, investors could purchase one-year installments of college tuition and then redeem the contracts when the beneficiary attends college. This contract would cover the institution's tuition and thus shield the student from an elevated tuition rate due to inflation. The one-year contracts were divided into University, Combination 2 Plus 2, and Community College Plans. The University Plan offered one to five years of tuition. The Combination 2 Plus 2 Plan combined a two-year community college contract and a two-year university contract. The Community College Plan offered up to two years of contracts at a West Virginia community college or technical college. Beginning in July 2002 the Plan was altered to a one-semester contract system and the institutional categories were eliminated. The one-semester contracts were valued using a weighted average of tuition prices.

In order to purchase a contract in the Plan, either the purchaser or the beneficiary of the contract must be a resident of the state of West Virginia. In addition, the beneficiary must be not be above a grade level of nine in the secondary school system. The Plan allows beneficiaries to attend an institution outside of West Virginia; however funds will be allocated only to the level to match the weighted average tuition level of a West Virginia school.

The Plan's investment goal is to obtain a return on investments that is larger than the increase in college tuition levels. In order to obtain this performance, the Plan has a

42% allocation in United States stocks, 18% allocation in International stocks, and a 40% allocation to Fixed Income funds. The Plan holds an annual assumption that the funds will generate a return for all future years of 7.25%. For the fiscal year ending in 2006, the investment funds performed above this assumption with a 9.1% return.

The Plan forecasts the level of college tuition inflation as part of determining the overall Tuition Benefit Payable. The Plan used an inflation rate of 7% for the 2007-2008 academic year and for all years following. For the fiscal year ending in 2006 the college tuition inflation at West Virginia institutions was actually 6.8%.

In 2003, the West Virginia Legislature, in an effort to assist the Prepaid Tuition Program when a deficit occurs, established the Prepaid Tuition Escrow Account. When this situation occurs in the Prepaid Trust, up to $1,000,000 can be added to the Escrow Account from the West Virginia Unclaimed Property Trust Fund.

For the Fiscal year ending June 30, 2006, the West Virginia College Prepaid Tuition and Savings Program had a $5,259,725 deficit. This underfunded status decreased from the previous fiscal year which had a $6,648,247 deficit. One of the main reasons that the deficit decreased was because of a $1,635,423 gain from favorable investment returns. The investments performed at an average yield of 9.1%, which is above the 7.25% average assumed for the year. Also, there was a gain from favorable tuition inflation of $267,219. The average West Virginia tuition costs rose 6.8% for the year, which was below the 7.0% inflation mark assumed for the year. One factor that did increase the deficit was a revaluation of the tuition price given to beneficiaries. For the year ending in 2006, the tuition value was greater than the weighted average previously used resulting in an $836,373 addition (West Virginia).

iv. Colorado's CollegeInvest Prepaid Tuition Fund

Colorado's CollegeInvest Prepaid Tuition Fund was created in 1997 as a means to assist Colorado residents in obtaining higher education. When first established, plan participants purchased prepaid tuition contracts with the investment adjusted to the current average tuition rate (with a minimum guarantee of at least 4% appreciation per year for the contract's life) when the beneficiary exercised the contract. This Fund is not supported by the full faith and credit of the State of Colorado. Therefore, money invested into the Fund is only payable from the Fund itself, and it is not considered a liability by other divisions of CollegeInvest or the State of Colorado. If the financial soundness of the Fund becomes questionable by a review of an actuarial valuation or audit, the Fund may be directed to either distribute available assets to participants or discontinue (either temporarily or permanently) new formation of contracts. In August of 2002 the Fund suspended to new enrollment.

The Fund assumed a 5.5% tuition increase for 2006 with an estimate of 5.25% for all following years. As part of contract requirements altered in February 2003, the Fund limited the increase in value of tuition units to either the actual tuition rate for Colorado colleges and universities or 5.5%, whichever is lower. For the fiscal year ending in 2005, the tuition increased at a rate of 16%. For the fiscal year ending in 2006, the tuition increased at a rate of 10.3%. However, due to the constraint provided in the Program Disclosure Statement, the value of purchased tuition units only appreciated 5.5% each year.

The Fund altered its investment strategy of 60% equity and 40% fixed income to a complete 100% emphasis on fixed income in January 2005. This change met the

investment requirements to allow the Fund to forego having an actuarial valuation performed beginning in 2005. Beginning the fiscal year ending in 2005, the Fund lowered the investment return assumption to 4.5%. The Fund held an estimated return of 6.5% in 2004. "A higher investment return assumption results in a lower liability. Therefore, lowering the investment return assumption for the year ending June 30, 2005 increased the liability and the corresponding expense" (Colorado). For the year ending June 30, 2005, the Fund's investments enjoyed a 10.1% gain giving the total investments a value of $35,366,000. The next fiscal year the total investments of the fund decreased to $33,044,000 due to a negative investment return of -4.2% (Colorado).

The Colorado program began with a slight advantage over other prepaid plans. Like other plans offered, the program promised to match the rising cost of college tuition. In addition, the Colorado plan included a feature providing for a minimum increase in value each year. This promise of return provided the investor with an increase in value each year even if tuition did not increase. This standard was created in 1997 when national average tuition levels were around 5% and had been in a period of decline since 1991.

In 2003, subsequent to plan suspension, the program completely reversed prior provisions that allowed for a minimal appreciation and enacted the stipulation of a maximum 5.5% increase regardless of tuition levels. This switch from a very beneficial program to a severely limited one occurred at a time when inflation was close to 8% using CPI data and had been rising for the past 4 years.

D. Operating Prepaid Plans

i. Mississippi

The Mississippi Prepaid Affordable College Tuition plan was established July 1, 1996. MPACT's enrollment grew by 1,425 in 2006 to reach a total of 22,398 individuals. The Plan, overseen by the Mississippi Treasury Department's College Savings Plans of Mississippi Board of Directors, allows individuals to purchase up to 160 semester hours of tuition and applicable fees at a preset contractual price that can be used by the purchaser's beneficiary to obtain Mississippi higher education at a later date. The plan also allows for out-of-state tuition, as long as the amount paid is less than or equal to the average cost of Mississippi institutions of higher learning.

The money an individual invests in the MPACT program receives several tax benefits from the state of Mississippi. Not only do taxpayers receive a state income tax deduction for money contributed to the plan, but their earnings generated from the program are also completely exempt from state taxes. As a result, funds from the MPACT plan are only taxed when they are withdrawn from the program to pay for college tuition. When this occurs the money is taxed at the student's marginal tax rate (Campbell).

MPACT invests in both fixed income and equity securities. The Plan had a total 2006 investment in equity securities of $126,693,310 with 71% of those investments in domestic securities. The Plan had a total 2006 investment in fixed income of $40,537,957 with 72% of those investments in U.S. Treasuries and Agencies. For fiscal years 2006 and 2005, the Plan assumed a return on investment of 7.8%.

"Tuition benefits and expense payable represents 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" (Mississippi). The obligation is adjusted to absorb tuition inflation. In determining the tuition benefits and expenses payable for 2006, the Plan assumes a future tuition inflation of 6.5% at universities and 6.0% at community colleges. This inflation assumption was also used in 2005. The results of this valuation estimated that required future payments to cover tuition, fees, and the repayment of cancelled contracts is $251,854,919 with an estimated inflow from new contracts amounting to $40,598,616 resulting in a net payable of $211,256,303. Adding this liability to the other liabilities of the plan results in a total liability of $211,402,236. Comparing the total liability with the total assets of $185,096,557 for the fiscal year ending June 30, 2007, MPACT's total liabilities exceeded total assets by $26,305,679. This deficit decreased approximately 11% from the 2005 deficit of $29,650,937.

In 2006, the plan had total operating revenues of $33,327,973, which partially consisted of net investment income of $11,815,124 and new contract income of $20,964,255. The net investment income portion of revenues increased 30.1% and contract income increased 9.62% from 2005 figures. Total operating expenses for the plan amounted to $29,982,715 in 2006 resulting in a net income position for the program of $3,345,258. The operating expenses for the plan decreased 9.76% in 2006.

The actuary has calculated necessary "break-even" rates for the inflation of tuition and return on investment that the Plan must realize in order to meet the benefit liabilities and other expenses that the program will have to pay. The calculated investment earnings

rate needed is 9.74% coupled with a university tuition inflation of 4.75% and junior college tuition inflation of 4.25%.

In the event that the MPACT plan becomes financially unstable, any contract holders will be refunded interest equal to current bank savings accounts in addition to amounts paid into the contract. This provision results from the State of Mississippi ensuring investors full faith and credit of the state.

Year End June 30, 2005

For the fiscal year ending on June 30, 2005, the MPACT plan had assets totaling $161, 168,392. Liabilities, including current liabilities and estimated tuition benefits payable, amounted to $190,819,329 resulting in a deficit of $29,650,937. For 2005, the plan had net investment income of $9,069,765. This was a 52.1% decrease from 2004 net investment income of $18,932,299. This decrease, along with a $3,130,627 decrease in contract income, led the plan to a net loss position for the year of $4,477,530. The total operating expenses actually decreased in 2005 from 2004 totals by 3.71%. The plan assumed the same return on investment rate and tuition inflation rate as used in 2006.

Table 9

Calculation of Deficit - June 30, 2005	
Expected Payments (Tuition, fees, cancellations)	$230,540,032
Less: Receipt of new contract purchases	(39,925,889)
Net expected tuition and expense liability	190,614,143
Less: Net Assets	160,963,206
Deficit at June 30, 2005	(29,650,937)

Year End June 30, 2004

For the fiscal year ending on June 30, 2004, the MPACT plan had assets totaling $139,258,622. Total liabilities, including the tuition benefits payable, were $164,432,029 resulting in a deficit of $25,173,407. The plan's total operating revenues in 2004 were $41,738,853 with operating expenses of$34,508,297, resulting in a net income position for the year of $7,230,556. The net investment income of the plan for 2004 was $18,932,299 while new contract income totaled $22,255,321. Again in 2004, the program assumed the same investment returns and tuition inflation levels (Mississippi).

Table 10

Expected Payments (Tuition, fees, cancellations)	$204,585,589
Less: Receipt of new contract purchases	(40,544,853)
Net expected tuition and expense liability	164,040,736
Less: Net Assets	138,867,329
Deficit at June 30, 2005	(25,173,407)

The cost advantages of early enrollment in a prepaid plan are demonstrated by the MPACT plan. According to the 2007 College Savings Mississippi enrollment brochure, a four-year university contract for a newborn child expected to enroll in college in 2025 costs $17,698. This contract is priced as paid in a single lump sum. This same contract, but with a beneficiary who is in the 12th grade and one year away from college enrollment, costs a lump sum of $20,044. With an opportunity to "lock in the price for your child's college tuition today regardless of future tuition increases" (College Savings Mississippi), it would seem that the costs of these two contracts should be the same- the cost of tuition for 2007. The price difference in the contracts demonstrates that is not the case.

The average tuition rate for the 2007-2008 academic year at the eight Mississippi universities was $4,563 per year. This tuition rate over a four-year enrollment totals $18,252. This total assumes zero inflation in the stated 2007 price, a characteristic that has occurred only once in twenty years. Therefore, the stated contract price for the 12th

grader appears to most closely reflect the current tuition rates. The difference of $2,346 appears to be a discount on the newborn package that makes the plan available at below-current-tuition prices. This price favoritism toward contracts with distant enrollment dates encourages participants to enroll early (College Savings Mississippi).

a. Mississippi Tuition Inflation

Figure 5 portrays the average tuition rates of the eight public universities and colleges in the State of Mississippi from the years 1982 through 2008. As shown by Figure 5, the tuition level for the eight schools typically increased an average rate of 6.78% per year. The tuition in Mississippi distinctively increases sharply with a sudden decrease immediately following. For example, there were four instances in the 26-year period where the tuition would increase by at least six percentage points and subsequently fall the following period by at least six percentage points in a two-year span. These sharp adjustments in the tuition inflation rate make the Mississippi tuition level appear to be continuously overpriced with a correction following.

There were two large spikes in the tuition rate during the period examined. The first, and largest, occurred in 1986 when tuition inflated by 24.06%. The second large tuition increase happened in 2002 with tuition rising 15.01% that year. In ten of the years studied, tuition increased by at least 9% per year. Recently tuition has not increased as dramatically in the State of Mississippi as it has in past years. During the last five years, tuition has averaged a 4.89% inflation rate ("History of Annual Undergraduate Tuition Rates").

Figure 5

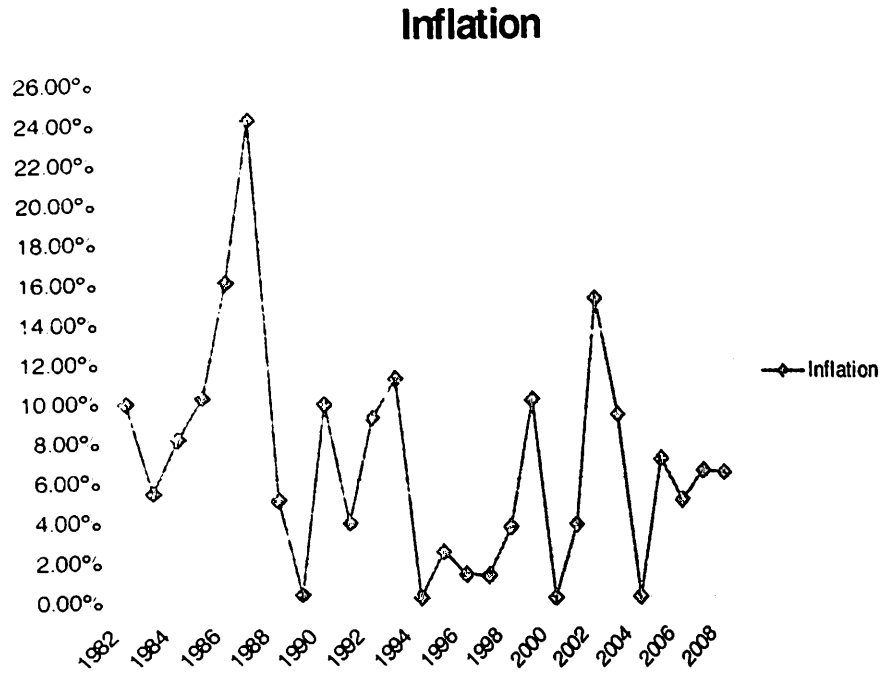
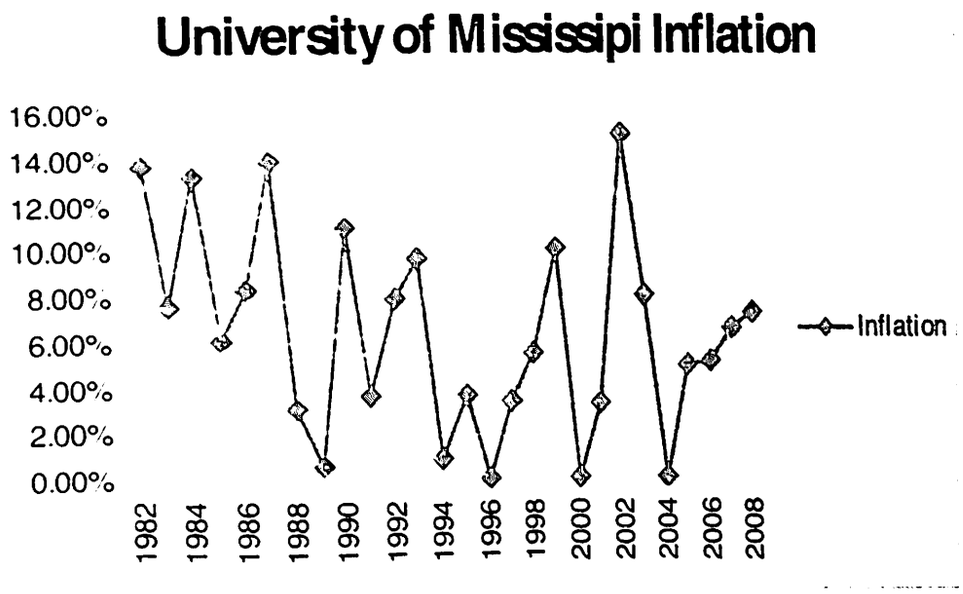


Figure 6 shows the tuition inflation data for the University of Mississippi during the same period, 1986 through 2008. As shown by the graph, tuition at the University of Mississippi inflated at an average rate of 6.37%. This average inflation rate is slightly below the statewide average of the eight Mississippi colleges and universities. Similar to the overall trend noticed in the Mississippi averages, University of Mississippi tuition tends to increase and abruptly decrease in sharp movements. Tuition increased 15% in 2002, marking the highest one-year increase for the university.

In five of the years examined, tuition increased at the university by less than one percent, with the most recent occurrence of zero inflation taking place in 2004. During the past five years, tuition increased at the University of Mississippi at an average rate of 4.76%.

Figure 6



The promise that invested principal is secured by the State of Mississippi is a relief to investors concerned about their savings should the MPACT plan fail. This feature allows parents to participate in the program without the fear of losing their money. While the security of the principal money invested is reassuring, the interest that is provided in the worst case scenario of program termination is not as promising. The plan provides for interest to be reimbursed at a level that can equal current bank saving account interest rates. A payout of interest equaling this low level is not satisfactory given the scenario of tuition inflation. This would especially be true if a contract was held for many years only for the beneficiary to receive a return on investment equaling a savings account. This stipulation presents a weakness in the prepaid plans guarantee of future tuition coverage.

In calculating their tuition liability for each of the years 2004, 2005, and 2006, the MPACT program expected to earn the same return on investments and encounter the same tuition inflation level. The use of a continuous annual inflation rate of 6.5% appears to be consistent with the past inflation levels in Mississippi. Using the same tuition rates

for three consecutive years appears conservative considering the elevating inflation environment and that this figure is below the national average rate.

The actuarial analysis declared that the MPACT plan needed a return on investments of 9.74% coupled with a tuition inflation level of 4.75% in order to satisfy all future obligations. Performances of this caliber seem to be a distant goal considering the plan assumed less favorable investment results and much higher inflation in calculating their liability in each of the three years examined.

ii. Florida

Florida holds the largest prepaid tuition plan in the Unites States with more than 1.1 million prepaid contracts. For the fiscal year ending in 2006, the plan issued an additional 53,040 prepaid tuition plans. Children are only eligible for the plan if their guardian or parent is a resident of the state of Florida. The plan, enacted by Florida legislature in 1987, is backed by the full faith and credit of the State of Florida. If the Plan is cancelled due to financial strain, the State will provide full benefits to all beneficiaries either currently enrolled in a college or university or expected to enroll within 5 years. All other beneficiaries will be given a refund adjusted with the current interest rate.

The Florida plan is unique compared to many other state prepaid tuition plans in that the purchaser has the option of selecting a tuition plan, a Focal Fee plan, or a Dormitory plan. Within the tuition plan are options for a four-year university plan offering 120 undergraduate credit hours, a 2+2 plan dividing the credit hours evenly among a community college and a university, and a 2-year community college plan providing 60 junior college hours. The Local Fee plan pre-purchases the additional small

fees that are usually added to a student's tuition bill but are not included in a basic tuition plan such as activity fees for the use of athletic facilities. The dormitory plan pre-purchases the cost of living in a dorm or other applicable living quarters that is under the supervision of the university. Both the Local Fee plan and the Dormitory plan are restricted to purchasers of a Tuition plan before the beneficiary reaches the ninth grade. "Enrollment is highest among children who are one year old or younger. In 2005-2006, 33 percent of the children enrolled were one year old or younger" (Florida).

The Florida Prepaid College Plan observes an investment strategy with an 85% emphasis on fixed income and 15% allocated to stocks. Through these investment guidelines the Plan has received an annualized return of 9%.

As of fiscal year ending June 30, 2006, total assets amounted to $9,550,155,332 while total liabilities were $8,967,531,666, providing positive net assets of $582,623,666. The actuary assumed a 5.32% return of investments for the year ending 2006. This rate was calculated by using a spot curve based on the U.S. Treasury curve. The tuition inflation used to calculate the tuition liability was 6.5% at the university level and 6.0% for community colleges as well as fee increases. "The 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 and housing increases and termination of contracts" (Florida).

In an effort to combat the effects of interest rate fluctuations on the total liabilities of the Plan, the Florida Prepaid College Board manages the Plan with an immunization style of management. This style of management ensures that the assets of the Plan increase and decrease as the liabilities of the plan increases and decreases.

Year End June 30, 2005

For the Fiscal year 2004-2005, the Plan sold 48,052 tuition plan contracts. The actuarial reserve increased by $126,000,000

For the 2004-2005 academic year, the Plan assumed a 6.5% tuition inflation at the university level and 6.0% at the community college level. The plan estimated a 4.59% yield on investments in determining the future liabilities. The investment portfolio of the Plan realized a 15.2% return for the fiscal year ending in 2005 with the Plan recognizing that the increase was "primarily due to unrealized gains in the market value of the portfolio" (Florida).

Total assets amounted to $9,204,756,304 while total liabilities amounted to $8,677,969,781. This financial situation provides the Plan with assets exceeding liabilities by $526,786,523. The current portion of future tuition and housing obligation section of the total liabilities amounted to $235,721,174.

Table 11

Net Present Value of Liability –June 30, 2004	$5,073,722,125
Current Tuition and Housing Expenses	(1,016,029,073)
Increase in Tuition and Housing Payable	1,906,125,568
Net Present Value of benefits payable –June 30, 2005	$5,963,815,620
Current Portion	$235,721,174
Long-Term Portion	$5,728,097,446

Year End June 30, 2004

For the fiscal year ending in 2004, the actuarial reserve of the Plan grew $235 million to $404 million. An additional 48,723 tuition plans were purchased in this enrollment period.

The Plan assumed an overall return on investment of 5.71%. For the next two academic years, the Plan's actuary estimated that tuition would increase at an annual rate of 7.5% and subsequently decrease to 6.8% per year at the university level. A flat 6.0% inflation was used for the community college level.

Total assets amounted to $7,178,495,024 with total liabilities, including the present value of future tuition payables, totalling $6,775,579,732. This financial situation provides the Plan with assets exceeding total liabilities by $402,915,292. The current portion of the actuarially determined tuition and housing benefit payable is $198,512,474 (Florida).

Table 12

Net Present Value of Liability –June 30, 2003	$5,104,986,640
Current Tuition and Housing Expenses	(79,006,639)
Increase in Tuition and Housing Payable	47,742,124
Net Present Value of benefits payable –June 30, 2004	$5,073,722,125
Current Portion	$198,512,747
Long-Term Portion	$4,875,209,651

CHAPTER 3: CONCLUSION

The recent trends in tuition rates have caused a spark of interest in prepaid tuition plans and college savings plans. The dramatic increase in the rates for college tuition within the past couple of decades has made many families realize that, in order to be able to provide their children with a college education, a specialized means of saving and investing must be used. Individuals began signing up for 529 plans in record numbers. In the 21st Century, total funds invested in one of the section 529 plans increased at a rate of at least 30% per year. This increased alertness to the use of investing to finance higher education has been met with investment returns that have not quite provided the savings participants had desired. Compared to the year-to-year rise in college tuition that has often inflated at double digit percentages, people have not seen their college-designated savings keep up. The prepaid tuition plan, hailed by many savers as the better choice with the current inflation environment, has been especially troubled by the situation. With multiple plans forced to alter the language of their contracts or close their doors, there is fear that the original college savings vehicle will cease to exist.

The current atmosphere surrounding college tuition financing provides much insight into the situations families can face when it is time to start saving for their children's future education. The recent volatility in the rate of tuition increases has led to college tuition inflation that is often much higher than general inflation faced by consumers. Over the past few years, investment returns used to offset such increases have not provided stellar results. While the future trends of college tuition and investment markets are uncertain, the recent circumstances should serve as a warning to parents that saving for college expenses could be a difficult battle.

One of the most important lessons taught by current conditions is how important it is to begin saving for college as early as possible. Parents who get a head start on saving have the advantage of time. The market conditions during recent years prove that it is necessary to start saving early to be able to weather downswings in investment returns and elevated tuition inflation. From a prepaid standpoint, starting early will help participants to avoid some of the impact that newly introduced premiums would have on costs. If the plan is purchased close to college entrance, the premium may be so high as to eliminate most of the benefit of buying the contract in the first place. In addition, the recent closings of prepaid plans not only show that their lives may be limited but also hint that they may be too good to be true. The recent circumstances have adversely impacted the plan's foundation. Individuals wanting to take advantage of the recent prosperity of prepaid plans may need to do so soon before additional plans close to new enrollment.

Recent conditions show that it is vital to save for a college education. With steep tuition upswings, parents could be hard pressed to pay tuition if they find themselves in a period of rampant inflation. Both plans are a good means to finance an education. The prepaid plan and the savings plan are specifically structured for college saving. The tax advantages afforded them by the tax code give both of them a solid advantage over other normal saving methods.

While each savings type has advantages, this research demonstrates that the college savings plan is the best choice for future investors. Recently the conditions have not fared well for the prepaid plan. With many states canceling their plans due to the inflation rates, it is uncertain how long any plan will remain open if inflation continues on its current path. Other plans have remained open only to alter the terms of the contracts as

evidenced by the addition of premium fees and less favorable terms. The only changes felt by the college savings plan were meager returns for a period. For instance, no investors were threatened with cancellation or faced changes in their investment contracts. Ultimately, this demonstrates that the college savings plan offers more stability. In times where college costs are so uncertain, an investment plan that is stable coupled with a long-term time frame, provides families the best opportunity for college-saving success.

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