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The Thomas A. Roe Institute for Economic Policy Studies

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TAKING THE ANXIETY OUT OF PAYING FOR COLLEGE: A BOND MARKET FOR HIGHER EDUCATION

INTRODUCTION

The Cost. The rising cost of higher education is one of the major concerns facing American families today. The cost of public higher education has risen sharply over the past two decades compared with the average family income and general rate of inflation. Since 1980, average tuition costs at public universities have increased 234 percent, but the general rate of inflation and the average household income have increased only about 80 percent.[1]

The Reward. A college education significantly increases an individual's earning power. According to the U.S. General Accounting Office (GAO), "a graduated college student in 1980 earned about 43 percent more per hour than a person with a high school diploma. By 1994, this earnings advantage increased to 73 percent."[2] Thus, while families are finding it increasingly difficult to pay for college without incurring a tremendous amount of debt, the cost of not going to college makes these sacrifices difficult to avoid.

The Uncertainty. The problem is not just that college costs a lot, but that the cost is uncertain, making it hard for families to know how much they must put aside or what debt they or their children will have to incur to pay for a college education. Over the past decade alone, increases in annual private college costs have fluctuated between 5 percent and 8.6 percent. Increases in tuition at public universities have fluctuated even more.

To understand just how big a difference this fluctuation makes in a family's financial planning, consider a young couple saving for their newborn child's college costs. If tui-

1 U.S. General Accounting Office, *Higher Education: Tuition Increasing Faster than Household Income and Public Colleges' Costs*, GAO/HEHS-96-154, August 1996, p. 5.

2 *Ibid.*, pp. 14-15.

tion and fees at a private university keep rising at the same rate they have over the last few years, parents with a new child today will have to come up with just over $100,000—*in today's dollars*—when that child heads off to college. If those costs rose two percentage points faster than today's pace, more like the average increase since 1980, the tab would be over $150,000. Two points less than today's rate of increase would mean about $75,000. This kind of financial uncertainty makes planning difficult, to say the least.

Federal plans. To date, the federal government has responded to rising tuition costs by creating programs that 1) give cash grants to qualified students, 2) guarantee private student loans, or 3) lend money directly to students. For most families, this means the federal government makes it easier to get into debt. But the government does little to help families save for college and nothing to deal with the uncertainty of costs.

State prepaid plans. Fortunately, several states and a handful of private firms have taken an innovative step forward in making saving for college easier and more certain. The most innovative of these plans—prepaid tuition programs—allow parents to purchase what amounts to a bond denominated in units of education (like one semester). These bonds typically can be purchased at today's tuition prices even if the buyer's children will not reach college age for many years. When the time for college arrives, parents redeem the pre-purchased bond for education credits regardless of the cost at that time. The only major drawback is that the bonds must be used in-state; otherwise, much of the interest is lost upon redemption.

Typically, the accrued interest in the state savings program is not taxed at the state level. Last year, Congress and the President made the state savings plans even more attractive by deferring federal income taxes on the bond's interest until the student enters college and the bond is redeemed; the interest is taxed at the child's tax rate, which usually is lower than the rate that applies to parents. Since the measure was passed, several more states have begun to investigate the feasibility of establishing an education savings plan.

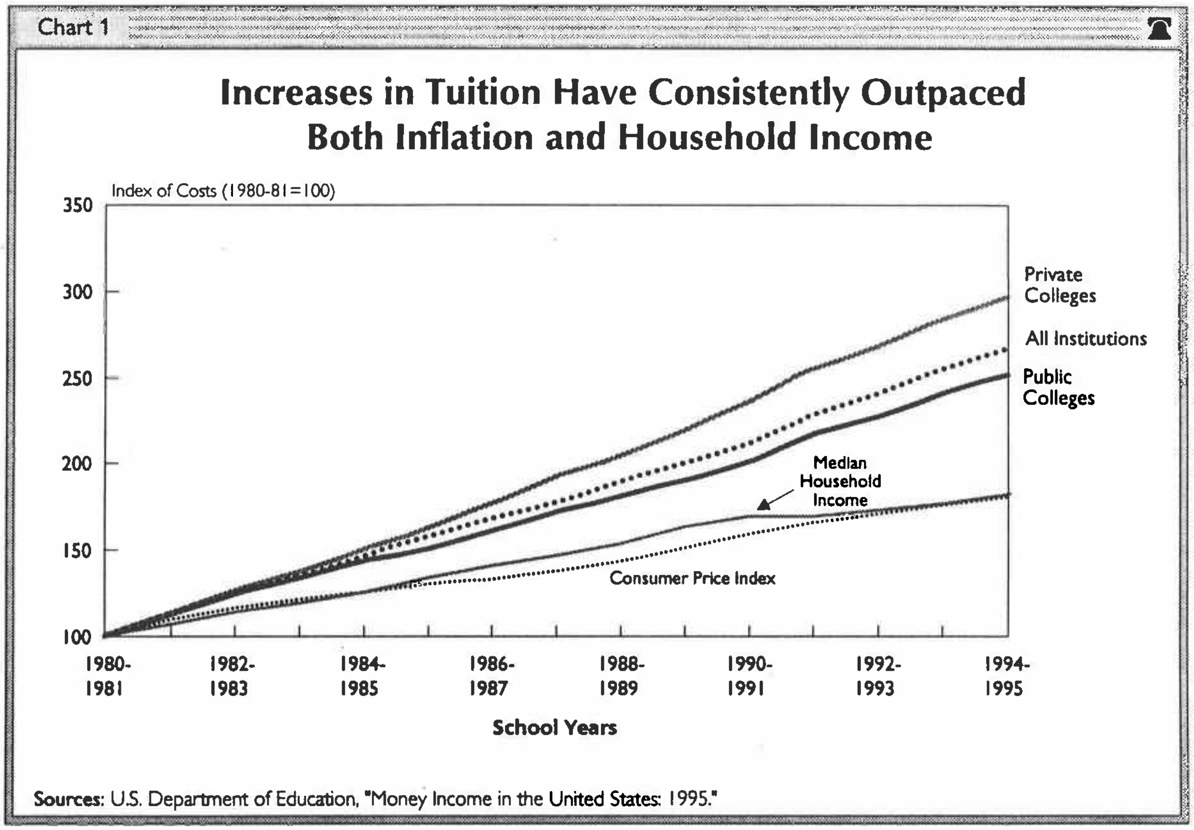
What's needed to boost savings for college. Congress and the President should go even further in their support of both state and private plans which encourage family savings for higher education rather than debt. Specifically, Congress and the President should:

- **Make** the buildup of earnings in state-sponsored tuition savings plans completely tax-free;
- **Extend** the tax-free status of earnings to investments with private firms that offer special higher education savings vehicles; and
- **Direct** the Commodities Futures Trading Commission to sanction a private futures market for education savings bonds.

Encouraging savings rather than debt. These steps are significant because they help reduce uncertainty and will enable more American families to afford college education. But they also will achieve another long-term goal: Rather than shackle families and graduates with years of debt, as current methods have done, these plans will encourage families to finance their children's college education through savings.

UNDERSTANDING THE PROBLEMS

The Rising Costs of Higher Education. The cost of higher education has been rising sharply for the past 25 years. The General Accounting Office recently reported that average tuition costs at public universities have increased since 1980 by 234 percent, much faster than earnings and general inflation.[3] Tuition expenses at private universities have increased even more rapidly over the same period (see Chart 1). These increases have outstripped the general increase in prices as measured by the Consumer Price Index (CPI), which has increased by 85 percent since 1980, and the average family's ability to pay for college as measured by household income, which has increased only 82 percent since 1980.



There are many important reasons for the explosion in college costs. These include:

- **The increasing value of a college degree.** The most important reason college costs have escalated is that the value of a college education has increased. The GAO reports that in 1980, the average college graduate earned about 43 percent more than the average high school graduate. Today, the difference in earnings between the same two workers is more than 70 percent.[4] Therefore, more and more families are finding it necessary to send their children to college so they will have a better opportunity to succeed in the job market. The real value of a college education has increased. The increased demand for a college education has driven up the price of college just as in-

3 *Ibid.*, p. 5.
4 *Ibid.*

creased demand for any commodity drives up prices if demand is not met with a sufficiently increased supply.

- **Increases in research activities at universities and colleges.** Another factor affecting tuition costs at many colleges and universities is an increased emphasis on research. The prestige of a college or university today is driven in large part by the publishing prowess of the institution's professors. Publishing requires research, which requires time. This means that professors are doing less teaching and more research; and less teaching on the part of each professor means either that course and class selection are reduced, which forces students to take longer to finish a degree, or that more professors are required on staff, which forces the institution to spend more for salaries.[5] Either way, the result is higher fixed or overhead costs, which typically are passed on to students and parents through higher tuition and fees.[6]

- **Reduced state funding.** In addition, the current era of fiscal austerity in government has meant slower growth in state budgets, which often has meant slower growth in financial support of public universities. Increased tuition has been the only recourse for public institutions faced with higher salaries and increased demand.

- **Federal programs that facilitate family debt.** Finally, federal programs meant to assist students facing steep college costs have themselves added to the rise in tuition.[7] Starting with passage of the Higher Education Act of 1965 (HEA), the federal government has guaranteed student loans extended by private banks. The Student Loan Marketing Association (Sallie Mae) was established in 1972 as a government-sponsored enterprise to establish a secondary market in student loans. In addition, a limited direct government loan program was established in 1993. These loan programs not only facilitate indebtedness, but also boost the scale of that indebtedness by encouraging steeper tuition increases. As Thomas Donlan recently wrote in *Barron's*, "The faculty and staff can vote themselves higher salaries and more resources if the only consequence is that students and parents just have to sign on the dotted line to borrow some more money."[8] With federal debt assistance so readily available, schools have no incentive to control the costs of education.

The increase in tuition costs because of increased demand and a rise in value is a natural market occurrence and should not be addressed by government involvement. Similarly, any overemphasis by universities on research will be corrected as students seek out schools focused on education. As for the fiscal restraint manifesting itself at the state level, it is the result of a decision by Americans who feel overtaxed. Therefore, federal policy should focus on correcting the remaining cause of escalating tuition: the effect of federal programs and their consequences for families.

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5 Charles Sykes, *Profscam: Professors and the Demise of Higher Education* (New York, N.Y.: Saint Martin's Press, 1988), esp. Chapter 3, "The Flight from Teaching."

6 For additional observations on this phenomenon, see Nicholas Lemann, "How can we cut the costs of a college degree? Higher ed, not Club Med," *U.S. News and World Report*, December 30, 1996-January 6, 1997, pp. 44-47.

7 For a succinct treatment of how federal programs have increased the costs of higher education, see Adam Goldin, "Who Benefits from Financial Aid," *Brainwash*, America's Future Foundation, Vol. I, No. 2 (November 1996).

8 Thomas G. Donlan, "The Price of Education," *Barron's*, December 23, 1996, p. 55.

One side effect of any policy designed to make money more available to families to afford college will be to boost tuition somewhat. But the wisest approach would be to make it easier for families to save for college rather than to make it even easier for families and students to go deeply into debt.

The Uncertainty. The second problem to address concerning the rising costs of higher education is not just that college costs a lot, but that the cost is uncertain, which makes it hard for families to know how much they must put aside, or what debt they or their children will have to incur to pay for a college education. Over the past decade alone, private college inflation, as measured by the Independent College 500 Index, has ranged from a low of 5.05 percent in 1996 to a high of 8.61 percent in 1989.[9] Tuition at public universities has fluctuated just as much, from a high of 8.90 percent in 1986 to a low of 4.69 percent in 1994.[10]

The uncertainty of college costs makes saving particularly difficult because parents can never be sure they are saving enough money to cover the full costs of tuition, fees, room, and board. Or families may save too much for higher education costs, in which case they will be sacrificing savings for other expenses such as retirement or a house. The uncertainty surrounding saving for college is like taking out a mortgage without knowing what the final price of the house will be when the closing date arrives.

To understand how much fluctuations in tuition rates can mean when planning financially for college, consider again the young couple who want to save for their newborn child's education. If tuition and fees at a private university were to rise at the 1994 rate of 4.69 percent, the couple would have to save $47,320 in today's dollars. If tuition and fees at the same school were to rise at the 1986 rate of 8.90 percent, the couple would have to save $102,407 in today's dollars.[11] It is impossible to plan efficiently for expected college costs under such uncertain conditions.

EXAMINING SOME CURRENT ALTERNATIVES

The beginning of a solution. Several states and private interests have begun to address the problems of escalating tuition costs and the uncertainty of those costs by offering savings plans for parents with young children. Although details differ from plan to plan, the state plans generally have two core characteristics. First, parents can save money for their children's education without paying state income tax on the interest. And second, parents may purchase an amount of higher education at today's tuition rates to be redeemed in the future when their children enter college. As Peter Mezereas, Executive Director of the Massachusetts plan, explains, "These plans are a way to lock in tomorrow's tuition at today's rates."[12]

9 The Independent College 500 Index is an average of the cost for one year's tuition, fees, and room and board at 500 private universities and colleges throughout the United States.

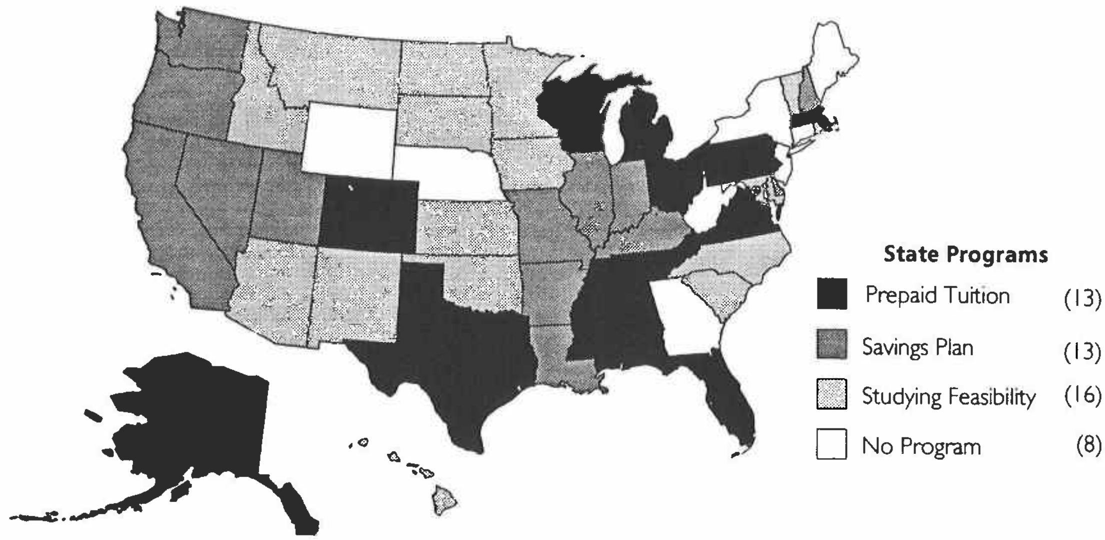
10 U.S. Department of Education, National Center for Educational Statistics, *1995 Statistical Digest of Higher Education*, 1996.

11 These calculations assume a general cost-of-living inflation rate of 3.5 percent.

12 Interview with the authors, November 12, 1996.

Map 1

State Efforts to Help Parents Set Aside Money for Their Children's Education



Sources: U.S. Department of Education, "Money Income in the United States: 1995."

The first of these state savings plans was established by Michigan in 1986. Florida and Ohio followed in 1988 and 1989, respectively. Today, 42 states either have implemented some form of tax-favored education savings plan or are studying the feasibility of such a program. These programs range from simple savings trust funds that allow parents to save whatever amount they wish, without having to pay state income taxes on the earnings, to complex pre-paid tuition plans that allow parents to purchase a semester of education at a school within the state at a specific date in the future. The accompanying map and table highlight the activities of the states.[13]

The advent of private savings plans. States are not the only entities creating innovative savings programs for parents and future students. Private savings instruments have developed as well. For example, the College Savings Bank of Princeton, New Jersey, offers the CollegeSure® Certificate of Deposit (CD), a federally insured savings vehicle whose rate of return is tied to an index of the tuition inflation at 500 public and private colleges and universities. The CollegeSure® CD is more flexible than the state plans because the savings can be used at any school in the United States and can be applied toward tuition, room, board, or any other cost associated with a student's education. If the beneficiary decides not to attend college, the money can be withdrawn without losing interest income.[14] Because it is indexed, the purchaser knows the investment will cover av-

13 For a complete overview of all the state-based plans, see College Savings Plans Network, National Association of State Treasurers, *Special Report on State College Savings Plans* (Lexington, Ky.: Council of State Governments, 1996).

14 College Savings Bank information brochure, "CollegeSure® Certificate of Deposit: The Guaranteed Way to Save for College," 1996.

Table 1

State Efforts to Help Parents Set Aside Money for Their Children's Education

State	Program Name	Year of Start	Program Type
Alabama	Prepaid Affordable College Tuition (PACT)	1990	Prepaid Tuition
Alaska	University of Alaska Advance College Tuition Payment Plan	1991	Prepaid Tuition
Arizona			Studying feasibility
Arkansas	Arkansas College Savings Bond Program	1991	Savings Plan
California		1991	Savings Plan
Colorado	Colorado Student Obligation Authority	1997	Prepaid Tuition
Connecticut			
Delaware	Family Account for College Tomorrow (FACT)	1997-98	Savings Plan
Florida	Florida Prepaid College Program	1988	Prepaid Tuition
Georgia			
Hawaii			Studying feasibility
Idaho			Studying feasibility
Illinois	Illinois College Savings Bond Program	1988	Savings Plan
Indiana	Indiana Education Savings Authority	1996	Savings Plan
Iowa			Studying feasibility
Kansas			Studying feasibility
Kentucky	Kentucky Educational Savings Plan Trust	1990	Savings Plan
Louisiana	Louisiana Student Tuition Assistance & Revenue Trust Program	1997	Savings Plan
Maine			
Maryland			Studying feasibility
Massachusetts	U-Plan - The Massachusetts College Savings Program	1995	Prepaid Tuition
Michigan	Michigan Education Trust	1988	Prepaid Tuition
Minnesota			Studying feasibility
Mississippi	Mississippi Prepaid Affordable College Tuition Program (MPACT)	1997	Prepaid Tuition
Missouri			Savings Plan
Montana			Studying feasibility
Nebraska			
Nevada	Zero Coupon Bonds for Nevadans	1993	Savings Plan
New Hampshire	NH College Savers	1990	Savings Plan
New Jersey			
New Mexico			Studying feasibility
New York			
North Carolina			Studying feasibility
North Dakota			Studying feasibility
Ohio	Ohio Tuition Trust Authority	1989	Prepaid Tuition
Oklahoma			Studying feasibility
Oregon			Savings Plan
Pennsylvania	Pennsylvania Tuition Account Program	1993	Prepaid Tuition
Rhode Island			Studying feasibility
South Carolina			Studying feasibility
South Dakota			Studying feasibility
Tennessee	Tennessee BEST	Pending	Prepaid Tuition
Texas	Texas Prepaid Higher Education Tuition Program (TOMORROW)	1996	Prepaid Tuition
Utah	Utah Educational Savings Plan Trust	1996	Savings Plan
Vermont			Studying feasibility
Virginia	Virginia Prepaid Education Program (VPEP)	1996	Prepaid Tuition
Washington		1997	Savings Plan
West Virginia			
Wisconsin	EdVest Wisconsin (Wisconsin Education Investment Program)	1997	Prepaid Tuition
Wyoming			

Source: College Savings Plans Network.

MASSACHUSETTS AND KENTUCKY: TWO EXAMPLES OF STATE-BASED SAVINGS PLANS

MASSACHUSETTS: In 1995, Massachusetts established the *U. Plan*, a pre-paid tuition program, to address "an important public policy concern—financing a child's college education."[1] During the program's first year, 28,740 U. Plan accounts were opened with more than $26 million in deposits.

Investors in the Massachusetts program purchase a special state government bond for any amount above $300. Parents may invest through an annual lump sum payment or in monthly installments. Each year, the tuition costs at the 77 participating colleges in Massachusetts (both public and private schools can participate) are recorded and the investment level to be made by parents is calculated as a percentage of that tuition, which is then "locked in" and available whenever the student enters school. For example, tuition and fees at Amherst College totaled $20,710 for the 1995–1996 school year. Parents investing $100 per month, or $1,200 a year, would have "locked in" 5.79 percent of one full year at Amherst no matter when their child attended the college. If, for example, the cost of a full year at Amherst was $30,000 when the child was ready to enroll, then the initial investment of $1,200 would have grown to $1,737. If the student chose to attend another participating school, say Fitchburg State College, the savings would be transferable as a corresponding percentage (annual tuition at Fitchburg was $3,316 for the 1995-1996 school year, so the $1,200 investment would be worth roughly 36 percent of one full future year of education at Fitchburg).[2]

Investments in the U. Plan are backed by the full faith and credit of the state of Massachusetts. In addition, because the money is held in a state government bond, the interest earned is free of both state and federal income taxes.

The plan takes the uncertainty out of saving because it locks in the price of future tuition. The state guarantees it will cover any increases in tuition, from the date of purchase until the date of enrollment, up to two percentage points above inflation as measured by the Consumer Price Index. Any tuition increase above that is the responsibility of the school, *not* the parents.

KENTUCKY: In 1988, Kentucky established the Kentucky Educational Savings Plan Trust. This program is a simple savings plan that allows anybody with "Kentucky ties" to open an account in the name of any beneficiary under the age of 15. Any contribution above $25 is accepted, and the state guarantees at least a 4 percent annual rate of return and charges no management fees.

Under this plan, unlike many of the prepaid tuition plans, the savings accumulated in a Kentucky Educational Savings account are not denominated in units of education, but may be applied to programs at any accredited institution of higher education in the country. The Kentucky plan, like other simple savings plans, therefore offers greater flexibility than most prepaid plans, but it is not guaranteed to cover a predetermined amount of education.

1. Peter Mazereas, "From the Executive Director," *U. Planner*, Massachusetts Educational Financing Authority, Vol. 1, No. 1 (Fall 1996), p. 2.
2. Massachusetts Educational Financing Authority enrollment brochure, *U. Plan: The Massachusetts College Saving Program*, 1996.

erage increases in college costs—though it does not lock in a specific amount of education at any particular institution.

The plan offered by the College Savings Bank does have drawbacks, however, largely due to state and federal law. Most important, interest earned on the CD is fully taxable at both the state and federal levels, and the profits of the bank are also taxed at both the state and federal levels. To cover these four taxes and plan for a semester of college costs ten years in the future, parents have to invest more than that semester actually costs in present dollars. For example, if a semester at a particular university currently costs $2,012, then an investor with the College Savings Bank must deposit $2,318 today to cover fully the expenses of a semester ten years from now as well as the taxes paid by the bank at the state and federal levels. In addition, the investing family must consider that they will be responsible for paying personal taxes on the interest they earn. In this example, the principal will increase from $2,318 to $3,848, thus earning $1,530 in interest. While the family is guranteed a rate of return tied to future tuition costs, it is at a premium to cover all the applicable taxes.[15]

Recent action by Congress. Last year, the 104th Congress and President Clinton made the state savings programs even more attractive by deferring federal income taxes on the interest earned by investors. This provision was passed as part of the Small Business Job Protection Act of 1996 (H.R. 3448, P.L. 104-188). It was proposed originally by Senator Mitch McConnell (R-KY) in S. 386 and was supported strongly by Senator Bob Graham (D-FL). Moreover, at the time the plan is cashed in, the accrued interest income is taxed at the child's tax rate, which is usually less than the tax rate faced by parents. Since passage of this special tax treatment, many more states have chosen to consider or implement tuition savings plans; more than 15 states have announced plans to study the feasibility of establishing such tuition plans.

Unfortunately, Congress and the President did not extend this preferential tax treatment to similar private education savings plans such as those offered by the College Savings Bank. This has placed these private investments at a distinct disadvantage compared to state-sponsored plans, because investors in the private plans must continue to pay taxes on the annual earnings of their savings.

TAKING EFFECTIVE CONGRESSIONAL ACTION

Existing state savings programs have enabled thousands of families to overcome the high costs and uncertainty of college tuition. However, much remains to be done to extend these benefits to all families and all institutions of higher education—public and private alike. Several additional reforms would make the state and private savings plans even more attractive to parents who are trying to save for their children's higher education and who are looking for predictability in tuition costs. Specifically, Congress and the President should adopt the following strategies:

15 *Ibid.*, p. 3. According to this brochure, "Over the term to maturity of each CollegeSure® CD, the annual percentage yield (APY) is not less than the college inflation rate less 1.5 percent, which causes the unit price to be greater than today's cost of college."

Strategy #1: Make investments in all state savings programs completely tax-free.[16] The legislation passed last year by Congress and signed by the President makes the state-based plans tax-advantaged compared to other savings options; however, there is still room for improvement. All earnings from the savings plans purchased with after-tax dollars should be completely tax-free. For plans that invest in equities and private bonds, this would eliminate the inequitable double taxation that currently exists.[17] For the plans that are financed by a state's general obligation fund, tax-free status would place education savings bonds on a par with other general government bonds. Eliminating all federal income taxes on the imputed interest earned through the state programs also would create an additional incentive for savings which would help fuel greater economic growth.

The most comprehensive way to eliminate all taxes on interest earned on the state prepaid tuition bonds would be to adopt the proposal of Senator William Roth (R-DE) for a super IRA. This proposal would allow parents to invest money in their individual retirement account (IRA) that can then be withdrawn tax-free for certain expenses, such as a first-time home purchase, major medical expenses, and higher education costs. Classifying the existing state-based prepaid tuition plans as qualified IRAs would preserve the unique characteristics of the various programs while extending fair tax treatment to all investors in education savings plans.

Short of this, Congress should allow interest income earned from the existing private and state savings plans (and income earned from any higher education bonds that are issued by private investors or colleges) to be deductible from federal income taxes. This could be accomplished simply by deducting interest income from taxable income.

Strategy #2: Extend tax-free status to private education savings programs.[18] Many innovative private savings plans are available to parents who want to save for their children's education. However, none of these plans currently qualifies for any special tax treatment. Therefore, they are at a disadvantage compared with current state plans which are free of state taxes and tax-deferred at the federal level. This disadvantage should be corrected by allowing tax-free investment in private as well as state programs. The same rationale for tax-free status applies to private plans as well as state plans. Tax-free status would eliminate double taxation and provide incentives for personal saving.

Private programs also offer several advantages to families when compared with state programs. They are not limited to schools within a specific state; therefore, parents can save for their children's education without locking themselves into a limited number of institutions. Private plans also offer the innovation of the private market. Although only a handful of private plans currently exist, there is no reason why more companies could not offer innovative products if they are given the same tax

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16 This provision currently is included in S. 1, the Safe and Affordable Schools Act of 1997, introduced by Senator Paul Coverdell (R-GA) on January 22, 1997.

17 Income from corporate bonds and securities is taxed once at the corporate level, since dividends are distributed in after-tax earnings, and again at the personal level by the personal income tax.

18 This provision currently is included in S. 1, the Safe and Affordable Schools Act.

treatment as state-sponsored plans. Any increase in competition among providers can only benefit families by allowing them a greater selection of products with which to save for college.

Strategy #3: Direct the Commodities Futures Trading Commission to sanction a private "futures" market for education savings bonds. Although the federal government should not take an active role in the creation of a private futures market for education bonds, it also should not stand in the way of such a development. A futures market would be a valuable addition to "locked in" plans by introducing greater flexibility and sophistication.

Benefits to parents. In a futures market, independent investors or schools would offer bonds denominated in educational units (semesters or credit hours, for example) at particular schools. Parents could purchase the bonds for the year in which their child was expected to enter college. But there would be an additional choice—for a small price. A parent could buy a "call" option at a small price for the *right* to buy a bond at a later time at a fixed price. That time might be when the family could expect a higher income, or when the parents sold their house and became "empty nesters." As with any other futures market, parents essentially would be locking in a future price without paying for the product today.

Not only would this guarantee to parents that their savings would be sufficient to pay for the educational needs of their children at a particular college, but a family could trade one bond for another bond good at a different college if the family's means or desires changed. In other words, a market would develop in which investors who hold a bond for one school could trade the bond with other investors who hold bonds redeemable at another school. For example, if Mr. Jones has purchased a bond for one semester at Harvard University but his daughter decides to attend the University of Notre Dame, he could trade the Harvard bond on the futures market with Mr. Smith who previously purchased a bond redeemable at Notre Dame, and the difference in value would be made up in cash.

Benefits to bond issuers. Private issuers of education bonds would benefit from a stronger market because they could reinvest the savings and earn a higher rate of return than would be necessary to cover the cost of tuition even in the future. Again, the principle is exactly the same as with any other futures market or mutual fund. The issuer of the bond guarantees to pay to the purchaser the cost of tuition in the future. Any income earned on investing the money above that level is reserved for the issuer. As long as the actual rate of return is higher than the future cost of education, the transaction is profitable for the investor and the purchaser of the bond is guaranteed to meet his goal of covering the expenses of higher education. To protect consumers against fraud, these private bonds would be covered by the same rules and regulations covering all other futures contracts.

If schools themselves were the issuers of the education bonds, which is a likely development, they would also benefit. By issuing bonds, schools could raise money to build additional classrooms, upgrade computer systems, or pay for any number of other capital-intensive projects. Issuing bonds would be an attractive offer to schools that otherwise would have to borrow money from a bank or solicit private donations. The bondholders also would represent a pool of potential future students.

UNDERSTANDING THE DOUBLE EDGE OF COMPOUND INTEREST

There are only three ways for students and their families to pay for college: save, work, or borrow. The high costs of college increasingly make it difficult to work one's way through school. This leaves only two options for most families and students: saving or borrowing. Both of these realistic options involve a common (yet commonly misunderstood) concept: compound interest.

Compound interest means simply that a long-term investment, whether an annuity or lump-sum deposit, earns interest every year not only on the initial principal, but also on the interest earned in previous years. The same is true of long-term loans. Interest is due not only on the original amount borrowed, but on interest charged during previous years as well. The accumulative effect of compound interest is both a powerful investment tool and a costly reality of debt.

Consider, for example, a student at the average state university who attends school for four full years. Average in-state tuition and required fees during the 1994-1995 school year was $2,635. Four years would cost roughly $10,540 regardless of how the total cost is financed. If this student were to borrow the entire amount through federal programs, he would leave school with monthly student loan payments of roughly $120 per month.[1] On the other hand, if this student's family were to save enough over a ten-year period to cover full tuition at the same university, they would need to put aside only $58 per month. If the family were to begin saving for college as soon as the child was born, the monthly investment would need be only $24.[2]

This simple example highlights the difference between saving and borrowing: In the first case, the power of compound interest works against the student; in the second, compound interest works for the student. The difference is critical to a family's ability to afford higher education without incurring an extremely costly and cumbersome amount of debt.

1. The figures in this section assume an annual interest rate of 6.25 percent. The loan figures assume that the student does not begin to repay the loan until six months after graduation and that interest accrued while the student is in school, and for the six months immediately following graduation, is paid by the federal government. These features are common to all federal loan and loan guarantee programs.
2. The $500-per-child tax credit proposed as part of the Congressional Balanced Budget Act of 1995 would provide families with more than enough to cover this monthly investment. For more information, see John S. Barry, "What a Balanced Federal Budget with Tax Cuts Would Mean for Family College Costs," Heritage Foundation *F.Y.I.* No. 77, December 4, 1995.

HELPING FAMILIES WHO NEED IT

Historical participation patterns indicate that the primary beneficiaries of the state and private plans are working, middle-income American families. For example, the average annual income of families participating in the Florida higher education savings program—the largest of the state-based prepaid tuition plans, with 316,000 active contracts—is $50,000.

Most of the state plans have options for families with limited incomes. The Florida program, for example, offers Community College contracts for as little as $11 per month. And a joint private-public program known as the Florida S.T.A.R.S. program offers free prepaid tuition contracts to exemplary students from low-income families. Kentucky has a lower limit of only $25 annually on the amount of money that can be saved by parents in their education savings fund. The average monthly savings in Kentucky is a mere $48 dollars per year. The private College Savings Bank requires a minimum investment of only $1,000 per year ($83 per month, payable in quarterly installments). The key to all of the programs is that they allow parents *of all income levels* to save at least a portion of their income for their children's education.

A private bond and futures market would give families with modest incomes greater flexibility to finance the high cost of many private colleges. For example, young couples may purchase a "call option" on education bonds that would lock in current college tuition rates while deferring the actual purchase of the bond until such time as the couple's income has increased and they can afford to purchase the bond outright or begin to make installment payments.

Alternatively, families would be able to purchase higher education for their children one piece at a time. This is one of the many advantages of the existing state-sponsored prepaid tuition plans: Parents can purchase one semester or any number of credit hours each year until they have accumulated a full education. However, the existing plans are limited to in-state schools, and more often to in-state *public* schools. A private bond market would allow families—even those of limited means—to purchase pieces of education at any institute of higher education in the country, including private universities. Moreover, because these bonds would be tradable, parents would not be restricted to a specific school or state school system. The uncertainty of tuition inflation would be eliminated because rates would be locked in; private schools would be more accessible for all families because private bonds would not be limited to in-state schools; and flexibility would be introduced because the bonds would be tradable.

THE EFFECT ON FEDERAL GRANT AND LOAN PROGRAMS

The goal of all the education savings plans—both state and privately operated plans—is to increase savings for college. Since there are only three ways to pay for college (save, work, or borrow), any increase in savings will likely result in a decrease in work or borrowing. Therefore, a decrease in student loans and decreased participation in work/study programs would be expected. However, this is a desirable outcome. The more parents and students are paying in advance for their education and the less they get into debt, the better.

Moreover, an increase in family savings would mean that existing federal grant programs can be better targeted to the truly needy. During the 1995-1996 school year, 46 percent of students from families with incomes between $30,000 and $39,999 received Pell Grants worth an average of $1,060 each. The state and private savings programs are most attractive to families in this income range. Thus, as middle-class families save more, federal grants could be redirected to those who are most in need (i.e., those who cannot afford to save even a small amount of money).

It is true that, under current law, many families who save money for higher education costs are penalized in the federal grant process. This is because any money saved by the family is counted as income and can offset federal grant money dollar for dollar. This is also true of the tax credit and deduction proposed by President Clinton. In fact, Lawrence Gladieux and Robert Reischauer reported that "nearly 4 million low-income students would largely be excluded from the tax credit because they receive Pell Grants which, under the Clinton plan, would be subtracted from their tax-credit eligibility."[19] However, this is a deficiency of the federal grant programs, not an argument against college savings programs. Federal grants that discourage independent saving promote dependency on the government and lead to all the correlated problems. These programs should be reevaluated this year during reauthorization of the Higher Education Act, not held up as a red herring to stop progress toward enactment of education savings plans.

CONCLUSION

The return on a college education is sufficiently valuable that, given the opportunity, parents undoubtedly will save for their children's education. The question is whether they can. Today, families face steeper taxes than at any other time in history; since 1940, the total tax burden faced by the average family has increased from 5 cents to more than 40 cents for each dollar earned. Moreover, college tuition costs are higher than ever, and the rapid rate of tuition inflation has been fueled by federal government programs that are nothing more than a free pot of money at the end of the rainbow for colleges and universities.

Fortunately, several states and a handful of private companies have developed innovative programs that facilitate family saving for college. These efforts should be encouraged and expanded. Congress and the President can do this by taking steps to make all of the earnings from all of the state and private plans tax-free. This approach would eliminate the double taxation investors now face. It would encourage families to save for college rather than force them to strap themselves with debt and their children with years of student loan payments.

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19 Lawrence Gladieux and Robert Reischauer, "Higher Tuition, More Grade Inflation," *The Washington Post*, September 4, 1996, p. A15.