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Briefing Paper

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# FINANCING OPPORTUNITY FOR POST-SECONDARY EDUCATION IN THE U.S.: THE *EQUITY INVESTMENT IN AMERICA* PROGRAM

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## Introduction

The key domestic issues facing America in the 1990s will center on questions of "equity" -- in both senses of the term. Equity means "fairness," but it also refers to investment such as corporate stock that pays dividends based on the "profitability" of an asset. Equity stands in contrast to debt which requires fixed repayment no matter how profitable the firm.

The Equity Investment in America (EIA) program introduced here applies this dual meaning of equity to provide an entirely new way for students and workers to finance their own postsecondary education, training, or retraining. It is designed to mitigate the financial barriers to college and university schooling and vocational training for *all* students -- regardless of income, age, or social background -- by providing each U.S. citizen with a lifetime line of credit which can be used to pursue virtually any form of accredited or licensed schooling. Moreover, unlike conventional education "loans," EIA will not subject students to high fixed debt obligations immediately upon leaving school.

In combination with a proposed expansion in the federally-sponsored Pell and Supplemental Educational Opportunity Grants (SEOG), as well as College Work-Study subsidies, EIA will benefit those who in the past have been financially hampered from entering or completing a postsecondary education. But the program will equally benefit those in the middle class who are struggling to cope with the spiraling costs of education, but are presently barred from federal loan programs because they fail so-called "needs-tests."

What is more, EIA uses a unique funding source to provide the funds that students borrow. A portion of the growing surplus in the Social Security system would be lent to the EIA which in turn would make "equity award" loans to students who choose to participate in the program. The beauty of this mechanism lies in the demographics. According to computer simulations of the EIA program, repayments from students will be more than sufficient to fully compensate Social Security in the next century when there will be a larger number of retirees. Indeed, under a modest repayment schedule, EIA would actually be able to make financial contributions to the Social Security Trust Fund before the middle of the next century when the retirement system is expected to need additional funding.

Thus, the Equity Investment in America program can help solve not one, but two of America's most pressing problems: how to provide younger generations with the wherewithal to pursue the full education they and the country need, and how to provide older generations with adequate pension benefits at affordable payroll tax rates.

While differing in some significant respects from the extraordinarily successful "GI bill' that provided postsecondary education for millions of returning-servicemen at the end of World War II, the Equity Investment in America plan borrows some critical components from that post-war legislation: EIA is universal, not income or "needs-tested": it applies to training and retraining as well as to college and university education: and it swaps a single comprehensive and expanded financing system for the current patchwork quilt of federal loans and grants for higher education.'

## The Economic Rationale for EIA

Few deny the proposition that to ensure its ability to compete effectively, the United States must reinvigorate its primary and secondary schools, increase its training and retraining efforts, and maintain its preeminence in college and university education. In a global economy where capital and technology are becoming infinitely mobile, the one factor that provides a nation with a competitive advantage is the caliber of its labor force. The nation's productivity, the quality and array of its products and services, and our standard of living will continue to suffer if we fail to invest in *all* levels of schooling.

This is particularly true of professional and technical training. Staying ahead in international competition in a technological age requires having sufficient teachers, engineers, scientists, and health providers. Colleges and universities are well positioned to meet these needs. It is also, however, necessary to develop a commitment to "life-long" learning so that workers have the skills to move from one occupation or profession to another as economic conditions change. This requires a substantial expansion in vocational training and retraining, and the development of new

"apprenticeship" programs in a whole range of fields. Simply put, a high school education in the 1990s is no longer a sufficient condition to successfully compete in the home market or abroad.'

One quantitative measure of the value of education beyond the high school diploma is the enhanced earnings that educational investments produce for those who pursue college and university training. We calculate that, in 1990 dollars, the present discounted value of completing some college beyond the high school degree over the lifetime of the average worker is approximately $140,000. The present discounted value of four or more years of college is nearly $500,000.[3]

While education has large payoffs for those who pursue it, those with too little of it are now heavily penalized. Access to postsecondary schooling is increasingly responsible for separating society's "haves" from its "have-nots." The ratio of annual earnings of college graduates to high school graduates has increased from 1.5 to 1 in 1963 to over 1.8 to 1 in 1987 -- an increase of 20 percent. The widening gap is especially pronounced in the service sector where virtually all of the new jobs are found (Bluestone, 1990).

Whether one pursues school beyond the 12th grade is a function of many factors, but the financial barrier to postsecondary schooling is particularly important given the findings in a recent *USA* Today survey of high school graduates. One-third of those interviewed had delayed or indefinitely put off college because of the expense (Semerad, 1988, p. 154). Family income also plays a role in whether students remain in school. According to the U.S. Department of Education, only three percent of students with family incomes over $38,000 drop out in their first year of college. The dropout rate for students from low income families is closer to 15 percent (Kuttner, 1987, p. 20).

Moreover, for the most disadvantaged students -- those from low and moderate income minority families -- college enrollment rates have actually declined. The American Council on Education reports that college enrollment rates among blacks began to slide in the mid-1970s. For black men, the enrollment rate fell by 7.2 percentage points between 1976 and 1986. Intense college recruiting during the past four years has arrested the downward trend, but still black male enrollment has increased only slightly — from 436,000 to 443,000 students between 1986 and 1988 (American Council on Education, 1988, p. 8).

The cost of postsecondary schooling is indeed steep and rising. Estimates by the American Council on Education of average student charges for the academic year 1988-89 are in Table 1. But these figures understate the actual cost for most students because they represent the costs for full-time and part-time students combined. Based on figures for the 1986-87 school year, the costs for full-time students are. on average, 17 percent higher than the figures in the table.[4] Moveover, in many of the

elite private universities, annual tuition plus room and board fees now exceed $20,000 for undergraduates who attend full-time. Schools such as Yale and Harvard have announced annual tuition and fee increases for 1990-91 that will bring the total to almost $21,000.

**Table 1**
**Average Student Charges, by Type and Control of Institution, 1988-89**
(Full-Time and Part-Time Combined)

| Total | Tuitions & Fees | Room & Board | Miscellaneous Expenses |
|---|---|---|---|
| 4-Year Public Institutions (In-State) | | | |
| $5,823 | **$1,566** | **$2,879** | **$1,378** |
| 4-Year Public Institutions (Out-of-state) | | | |
| **$8,224** | **$3,967** | **$2,879** | **$1,378** |
| 4-Year Independent Institutions (Private) | | | |
| $12,256 | $7,693 | $3,637 | $1,196 |
| 2-Year Public Institutions (Commuter students) | | | |
| $4,111 | $767 | $1,313 | $2,031 |

Source: The College Board, 1988; and College Entrance Examination Board as reported in American Council of Education, 1989.

Unfortunately, as the cost of schooling has escalated, the federal government has moved to disenfranchise middle class students from federal assistance by restricting eligibility for grants. In 1979, the government set a $32,500 ceiling on family income for a student to be eligible for grant support. Today, despite inflation, a family must have an income no higher than $28,000 to be eligible for aid. Even then, if a student is still eligible for a grant, the amount provided has not kept up with increases in college

costs. The largest of the federal loan programs, the Stafford Student Loan, provides a maximum of $2,625 per academic year for the first two years of undergraduate study and $4,000 for each subsequent year, up to a five year maximum of $17,250. Hence, a student who takes out the maximum amount of Stafford loans over four years still must come up with another $9,750 on average to attend a public university and at least $26,750 to go private.

The financial gap between the high cost of postsecondary schooling and the economic position of students and their families is surely not the only barrier that must be overcome to increase the number going on to college, university, or advanced vocational training. But, it is one of the major barriers, and one that can be well addressed with the EIA program as we shall try to demonstrate.

## The Basic Nature of the Equity Investment in America (EIA) Program

To be sure, financing the EIA program will initially require substantial sums. "Equity awards" under the program are expected to amount to over $40 billion per year. Nonetheless, underwriting the program through current and projected Social Security surpluses is a prudent way to obtain the resources. Administering the program can also be accomplished in an efficient manner. Here is how it would work:

EIA will use a portion of the mushrooming Social Security surplus to capitalize a new U.S. Department of Education agency, the **EIA Fiduciary Trust. The** Trust is responsible for raising the capital for the program, making EIA awards to students, and overseeing repayment to the program. Unique to the plan is an income-contingent repayment system that permits students to take up to 25 years (but not beyond age 65) to repay their EIA loans and allows their annual repayments to vary with the level of their own annual earnings.[5] In this way, EIA is a "pay as you earn" plan with a built-in insurance policy. If one's earnings decline or if one becomes unable to work, the amount of annual repayment automatically adjusts. The actual EIA repayment rate for each participant in the program is based on the amount of EIA funds borrowed, the year in which the funds are borrowed, and the student's age.[6]

The EIA Fiduciary Trust is empowered to set the repayment rates so that on average across all EIA participants the total principal awarded plus accrued interest is returned to the EIA Fiduciary Trust and thence to Social Security. In this way, the integrity of the public pension system can be virtually assured. Indeed, well before the middle of the next century, modest repayment rates will allow the EIA program to actually contribute to Social Security after having fully discharged its debts to that system. In addition, the higher incomes associated with larger numbers of postsecondary-trained workers could even permit payroll tax rates to be lower in the future than would otherwise be the case.

EIA would begin by phasing out the two largest federal higher education loan programs -- the Stafford and Perkins loans.' In their place, the EIA Fiduciary Trust would create an "equity"-based system of student credit with the following provisions:

*Eligibility Requirements*

To be eligible an applicant must be:

* a citizen or permanent resident of the United States
* no older than 55 years of age[8]

*Maximum Investment Award*

* maximum award of $10,000 per year; $40,000 lifetime (in 1990 school expense adjusted dollars)
* actual award is not permitted to exceed the cost of tuition and fees plus estimated room and board plus a stipulated amount for miscellaneous education-related expenses

*Use of Investment Award*

* awards can be used at any state accredited or licensed postsecondary institution including vocational schools and new "apprenticeship" programs[9]
* awards are "portable," transferable to other accredited schools

*Repayment Rates and Provisions*

* repayment is income-contingent
* repayment rates are based on amount of award, age of recipient, and year of award
* repayment applies only to the first $50,000 of earnings, adjusted over time for average earnings growth"
* a buyout provision with a prepayment premium permits participants to complete EIA obligations at any time"
* maximum repayment period is 25 years
* no repayments beyond age 65
* participants repay their obligations through regular payroll withholding to the IRS

*Notification of Employers*

* recipients are notified of award by EIA Fiduciary Trust
* recipients are obligated to notify employers of EIA repayment rate
* employers are responsible for withholding
* self-employed recipients must file quarterly with IRS

**The EIA Fiduciary** Trust would administer the entire program. Its key responsibilities include:

*Processing Applications*

* Applications are made directly to the EIA Agency. The agency verities eligibility, grants investment awards, andnotifies recipients of their EIA rate and the terms of their payment obligations. Funds are not released directly to the recipient but to the institution or training program in which the recipient is enrolled. These institutions and programs provide local administration of the investment award for a modest fee.

*Managing the EIA Fund*

* The agency obtains funds from the Social Security (OASDI) Trust Fund by issuing non-marketable special issue obligations to Social Security and by issuing marketable bonds to cover extraordinary demand for funds if the need arises. The Trust also makes repayments to the bondholders (i.e., the Social Security Trust Fund).

*Establishing EIA Repayment Rates*

* The agency will determine the EIA rates in accord with prevalent economic conditions and projections. The rate schedules for future awards are periodically reviewed and adjusted in order to maintain the integrity of the fund.

*Coordinating Repayments from Participants via IRS*

* The agency will cross-check its records with Social Security payroll taxes (FICA) to assure repayment obligations are being met.

*Covering Agency Expenses and Recapitalization*

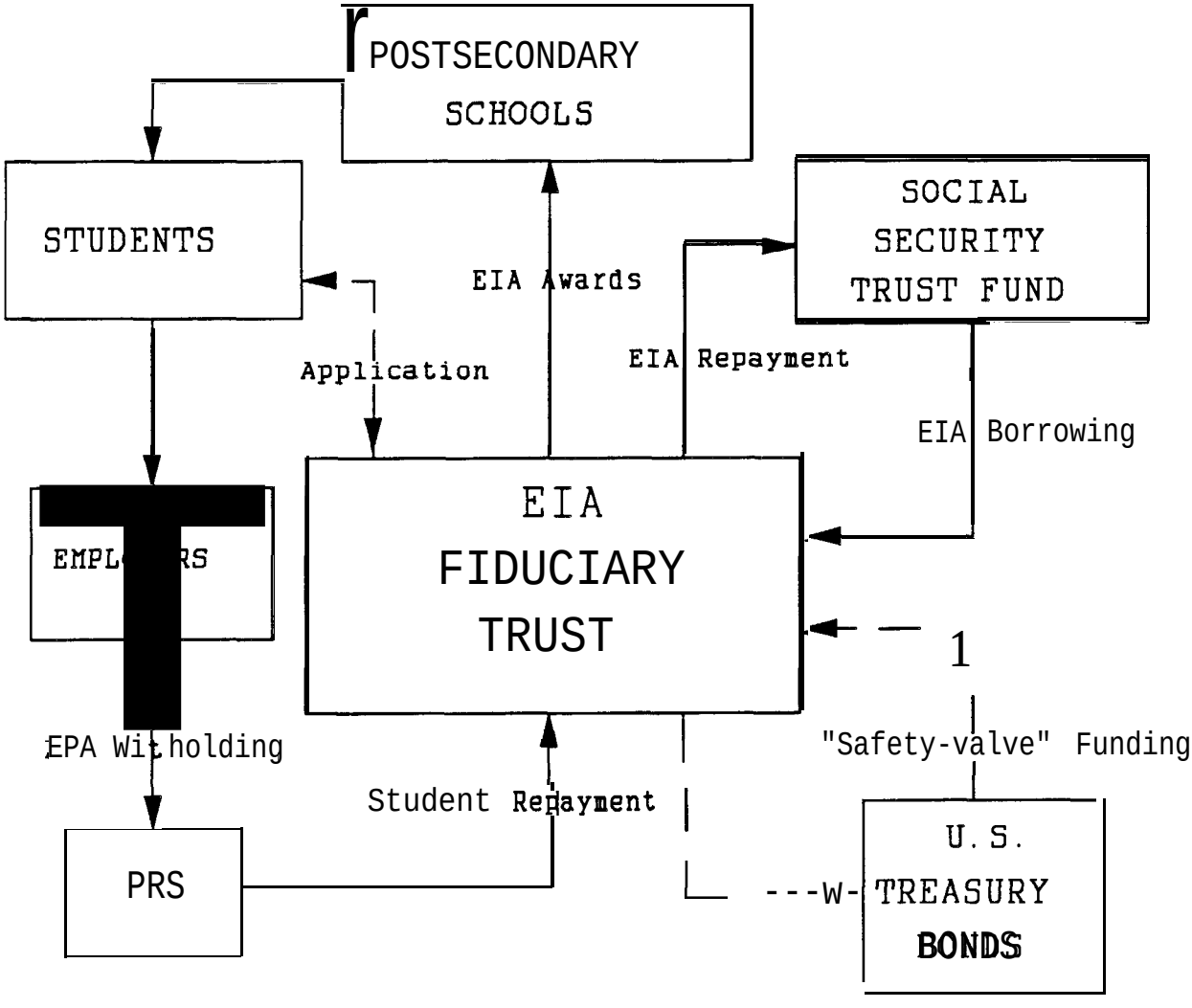
* To cover administrative expenses associated with the program and to recapitalize the program so that it is out of debt to Social Security before the middle of the next century. the repayment schedule has a built-in 1.75 percent premium over the U.S. Treasury bond rate -- .25 percent for administrative expenses: 1.50 percent for recapitalization. Under these terms, in 1991 the implicit interest rate in the program is expected to be 9.95 percent.

Congress could begin to implement EIA through a major revision in the Higher Education Reauthorization legislation. As EIA covers more and more students and as previous federal loans are paid off, the Stafford and Perkins programs can be phased out of existence.

## The Basic Structure of the EIA Program

The organizational structure of the EIA program is diagrammed in Figure 1. The arrows represent the flow of funds. Funds flow into the EIA Fiduciary Trust Fund from three sources: (1) the Social Security Trust Fund (2) repayments from EIA fund recipients, and as needed (3) federally-guaranteed bonds, as a "safety-valve" source of revenue." The EIA Fiduciary Trust, in turn, awards these funds to qualifying applicants via education and training institutions which provide local administration. As repayments are made to the EIA Fund (via the Internal Revenue Service) from students who participated in the program, the EIA fund repays the Social Security Trust Fund. Essentially, the Trust Fund loans part of its surplus to the EIA Fund in the years when the Social Security Trust Fund balance is growing and in future years is repaid when the balance is scheduled to shrink.[13]

Figure 1
**Equity Investment in America Program**
**Organizational Structure**



## The Practical Benefits of the EIA Program

Restructuring post-secondary education finance along the lines of the EIA program deals directly with a number of problems inherent in current methods of supporting students in their quest for schooling.

(1) EIA eliminates much of the morass of current federal loan programs in favor of one universal, comprehensive plan available to all postsecondary students.

(2) EIA provides a substantially greater amount of funds under superior terms to most current programs, thus allowing students to better meet the rising cost of postsecondary education.[14]

(3) EIA is available to all students in accredited postsecondary schools regardless of family income. There is no "needs test." It is a middle class program every bit as much as one aimed at the low and moderate income student.[15]

(4) Since repayment is based on actual earnings, there is effective deferral of principal and interest as long as the student is pursuing full-time studies and has little wage and salary income.

(5) As a result of income contingency and IRS collection, defaults are virtually eliminated -- something that now costs the U.S. Treasury in excess of $1.5 billion a year." Moreover, stricter licensing of trade schools, with state oversight boards partially funded by a portion of the EIA administrative fees would provide effective sanctions against schools that are supplying inadequate or inappropriate training to students. This would reduce the number of students whose incomes were not enhanced by their schooling.

(6) The EIA program applies equally to all forms of post-secondary schooling from apprenticeships and proprietary trade institutions to graduate and professional schools. It does not discriminate between the student who pursues, for instance, an undergraduate degree in political science and one who seeks retraining as a welder or office machine repairer.

(7) Racial and gender discrimination in the labor market is not automatically ratified as is the current practice under fixed obligation loans. The income contingent feature of the EIA program requires students to repay based on actual earnings and therefore takes full account of differences in earnings which arise for any reason.

(8) Because the EIA program is income contingent, students will be more likely to enroll in programs that conform to their academic strengths and career goals than in programs which simply hold out the promise of spectacularly high earnings that can be used to repay fixed short-term loans. This may mean slightly fewer students opting for law careers and MBAs and slightly more students preparing for careers in elementary and secondary school teaching, nursing, and other fields where the monetary rewards are smaller but the contribution to society is arguably no less and very likely greater.

(9) Under the EIA program, students pay for their own education as the benefits from that education become manifest. In most cases, this will remove a major financial burden from parents and place it on their children who benefit directly from the educational investment.

(10) Finally, the EIA program, by eliminating the need for the Stafford and Perkins loan programs, frees up $5.1 billion of federal education spending per year. These dollars -- or at least a portion of them -- could be used to expand the Pell and SEOG grant programs for the most financially disadvantaged students.

There are likely to be other benefits as well: simplified and cheaper administration of education loans is surely one of them.

### Financing the EIA Program on Social Security Dollars

The potential benefits of EIA are clear, but why use Social Security funds to pay for EIA? The reason is that such a unique mechanism provides for a level of intergenerational equity not available through any other device and furnishes the Social Security Trust Fund with an investment opportunity second to none.

The rationale for using the Social Security surplus for EIA is summarized best in a recent lead editorial in *The New York Times.* Responding to the Moynihan proposal to cut the Social Security payroll tax, *The New York Times* reiterated a basic truth concerning virtually any public pension system: future benefits do not flow from retirement account surpluses but are ultimately paid for by future taxpayers (*The* New York *Times*, 1990).[17] The Social Security system, no matter how many trillions of dollars it might have in surplus on the books, is essentially financed on the nation's future productivity and earnings. The *Times* goes on to make a crucially important point:

> How much pain that causes [future taxpayers] depends on how much the economy grows between now and then. Future taxpayers won't mind the tax burden if they feel well off. *The best way to guarantee that is for the* nation to *invest in education* and *capital* equipment. (Emphasis added.)

The editorials argument is sound. From a purely financial perspective, the question about future Social Security benefits boils down to what possible investments can be made today that will virtually guarantee a stream of income for pension benefits 30 to 40 years from now. One would not think of stock in Merrill Lynch nor even General Motors as a secure enough vessel for this purpose. Public investment in the skills of the nation's workforce is, as the *Times* suggests, clearly another matter. If we can boost future taxpayers' income, then those taxpayers should willingly contribute to the pensions of the generation that comes just before them. Indeed, it is possible to pay some portion of future Social Security benefits out of the extra earnings generated by a better educated, higher skilled, and better paid workforce. It is precisely this reasoning that provides the foundation for the EIA plan.

## A Simulation of the EIA Program in Action

There is, of course, at least one remaining issue. Is the EIA program as outlined here economically feasible? Put simply, "will it work?" We can analyze this question from two perspectives:

(1) *The individual who may be a* recipient *of* investment *awards.* How large will the repayments have to be for given EIA awards?

(2) *The funding* agencies *involved in capitalizing the program* What would the unified EIA accounts look like over time? Would there be a time when the EIA fund (or the Social Security fund) is in danger of bankruptcy?

To address these questions the EIA program was simulated using a uniform set of assumptions and a computer simulation model developed for this analysis.[18] Combining estimates from a variety of sources and drawing assumptions from a number of government agencies, the model was first used to simulate conditions for typical program participants. The model demonstrates their repayment schedules under various assumptions about the size of EIA awards, the participant's age, and likely earnings streams. The model was then used to project a set of accounts for the program through the year 2070.

A full detailed set of simulation results can be found in a special appendix, available from the Economic Policy Institute upon request.

## Case Studies

To demonstrate what the EIA program would mean to individual participants in terms of their repayment schedules, four hypothetical case studies have been simulated.[19]

*Case 1*: Traditional College Undergraduates

Bob and Mary both enter college in 199 1 and in each of four years of undergraduate study take the equivalent of $5,000 (in 1990 dollars) in EIA awards. Under the assumptions of the model, both will pay a repayment rate equal to 6.53 percent of annual pre-tax earnings (for earnings below the $50,000 cap adjusted for average earnings growth) for the next 25 years in order to repay the EIA Fiduciary Trust.

A portion of Bob's repayment schedule (in 1990 dollars) looks like this:

| Age | Expected Pre-Tax Earnings | EIA Payment | Percent of Earnings |
|---|---|---|---|
| 25 | $33,840 | $2,221 | 6.53% |
| 30 | 46,364 | 3,029 | 6.53 |
| 40 | 63,911[20] | 4,180 | 6.53 |

Mary's repayment schedule reflects a lower earnings stream. (This might be due to occupational or wage discrimination.)

| Age | Expected Pre-Tax Earnings | EIA Payment | Percent of Earnings |
|---|---|---|---|
| 25 | $26,849 | $1,754 | 6.53% |
| 30 | 17,500 | 1,143 | 6.53 |
| 40 | 40,350 | 2,636 | 6.53 |

Both Bob and Mary complete their obligations to EIA when they reach age 45 in the year 2018. Note that while Bob and Mary both pay 6.53 percent of their earnings in EIA repayments at age 25, Bob pays 27 percent more than Mary because of his higher income. Moreover, in this example, Mary pays only $1,143 when she is 30 for in that year she worked half time immediately after the birth of her first child.

**Case 2:** Advanced University Degree

Alex and George make the same EIA investment of $20,000 in their undergraduate careers and then add three years of graduate training for an additional $20,000 in EIA awards. The calculated EIA rate on this sizable total award is 11.60 percent of earnings up to the earnings cap of $50,000.

Alex's dollar repayments rise as his income increases (and as the earnings cap rises with the average wage in the labor market). However, because both Alex and George reach the cap soon after their 30th birthdays and their earnings continue to grow faster than the increase in the cap, their repayment rates as a percent of income declines. At age 40, Alex wins a promotion within his firm along with a large raise. However, since he is already at the earnings cap, his annual payment increases by less than $500 between ages 35 and 40:

| Age | Expected Pre-Tax Earnings | EIA Payment | Percent of Earnings |
|---|---|---|---|
| 30 | $55,294 | $6,413 | 11.60% |
| 35 | 66,657 | 7,245 | 10.87 |
| 40 | 92,000 | 7,710 | 8.38 |

George's repayment rate declines, but more slowly than Alex's. By age 40 he is paying the maximum like Alex, but because of his lower annual wage, he pays a slightly higher proportion of his income:

| Age | Expected Pre-Tax Earnings | EIA Payment | Percent of Earnings |
|---|---|---|---|
| 30 | $48,216 | $5,592 | 11.60% |
| 35 | 65,323 | 7,245 | 11.09 |
| 40 | 78,964 | 7,710 | 9.76 |

The EIA program works just as well for the "non-traditional" student, as Case 3 demonstrates.

*Case* 3: Non-traditional Part-Time Undergraduate

At age 30, Barbara decides to earn her BA degree on a part-time basis while continuing to work.[21] Beginning in 199 1, Barbara takes out an EIA award of $2,500. Over the six years it takes her to graduate, she obtains $15,000 worth of EIA awards. At age 36, Barbara has just graduated and she is earning $25,070 (in 1990 dollars). Her EIA payment is $1,087 or 4.34 percent of earnings. Had Barbara not gone to college, she would have earned at age 36, according to our simulation, $3,187 less. As a result, her EIA repayment that year was equal to about 34 percent of her additional earnings. Later in her career at age 52, Barbara is earning $40,460. Her EIA payment is now $1,755, still 4.34 percent of earnings. If for some reason Barbara did not work at all when she was 52, her EIA payment would be zero.

Case 4: Vocational Training

Michael decides to enroll in a vocational retraining program at age 45 after losing his job at an auto parts manufacturing firm. Michael takes an EIA investment award of $2,500 in 199 1 to invest in his training. After completing a training program in computer programming, he gets a full-time job that pays $28,371. That year he repays $324 to the EIA Trust Fund or 1.14 percent of his total earnings. Ten years later at age 56, Michael is still working as a programmer and making $36,898. His payment to EIA is $421. Relative to what he would have made without the training, we calculate that Michael is paying only about six percent of his additional earnings in EIA payments.

These are but four of literally thousands of "cases" that could be simulated. The basic point is the same. By using an extended repayment period and by protecting participants against high costs when they are unemployed or their incomes lag, the EIA program provides students with an affordable and equitable method for financing their own educations with built-in insurance against what financial experts call "downside risk."

## Simulated Accounts for the EIA Fiduciary Trust and the Social Security Trust Fund

Given the size of the potential market for EIA awards, it will take hundreds of billions of dollars over the first decade to fund the program. Will there be sufficient funds to cover its cost? Will the EIA Fiduciary Trust be in a position to repay the money it borrows from the Social Security surplus? By the middle of the next century will the EIA fund or Social Security be in jeopardy of bankruptcy?

To answer these questions, a computer simulation of the overall EIA program was conducted. The simulation was based on the same economic

assumptions as in the individual EIA participant cases. Additional assumptions about potential college enrollments were obtained from the U.S. Department of Education and Social Security Trust Fund projections were taken from the 1990 Social Security Annual Report.

As it turns out, the demographics are definitely in our favor. Population projections indicate that the traditional college age population will not grow significantly during the rest of this century or, for that matter, into the 21st. Even with a possible ten percent increase in college and university enrollments induced by the incentive of the EIA program, a 50 percent program participation rate, and meeting a goal of three percent of the labor force using EIA assistance for training and retraining each year, the total number of annual EIA awards is expected to increase by no more than 400,000 between 1991 and the year 2010. After that, enrollments are projected to slowly decline. As a result, it is unlikely that there will be an unanticipated explosion in the size of the EIA program.

We project that EIA will assist about 9 million students each year -- between 7 and 7.5 million college and university students and about 1.7 million in vocational programs. We assume an average annual award that rises from approximately $4,400 in 199 1 to over $8,500 in 1990 education cost adjusted dollars by the middle of next century. This takes into account prorating of the annual Iimits on awards for public and private education and two and four-year programs.

Even with participation of this magnitude, the program fits well within the size of projected Social Security surpluses. According to the simulation, the Fiduciary Trust's debt to Social Security will grow over the next 30 years, reaching a peak of about $1.6 trillion in current dollars ($494 billion in 1990 dollars). Thereafter, repayments into the EIA fund will finance new advances to students and reduce the net outstanding balance owed Social Security. By the year 2032, EIA will no longer need to borrow from Social Security and will begin to accumulate assets. By the year 2039, the loans from Social Security could be fully repaid. After that, the EIA fund could provide a substantial return to Social Security. In this way, Social Security could eventually receive a return over and above the interest on the loans it made to EIA (see Table 2).

## Table 2
## EIA Fiduciary Trust Account
## Basic Scenario

**Basic** Assumptions:

- Dividend payments are made for a maximum of 25 years
- College enrollment increases by 10 percent over current U.S. government projections because of EIA incentive
- 3 percent of the labor force enrolls in training programs each year
- 50 percent of students participate in EIA at an average award of 60 percent of the maximum
- EIA repayment rates set to yield 1.75 **percent above Treasury rate**
- **Real tuition** rises by 2 percent per year through 2000, 1 **percent thereafter**
- **EIA borrowing from Social Security requires periodic interest payments and repayment of principal after fifteen years**

**All dollar figures are in** 1990 **dollars.**

| Year | Number of Participants (millions) | Average EIA Award ($) | EIA New Borrowing ($ bill.) | EIA Student Repayments ($ bill.) | Net EIA Fund Balance ($ bill.) |
|---|---|---|---|---|---|
| 1991 | 8.951 | $4,438 | $38.638 | $ 1.193 | -$ 38.638 |
| 1995 | 8.975 | 4,765 | 46.782 | 8.344 | - 199.724 |
| 2000 | 9.112 | 5,264 | 49.440 | 23.242 | - 390.988 |
| 2005 | 9.280 | 5,566 | 43.719 | 41.706 | - 536.136 |
| 2010 | 9.272 | 5,850 | 54.502 | 62.905 | - 602.913* |
| 2015 | 9.128 | 6,109 | 33.113 | 85.940 | - 564.731 |
| 2020 | 8.984 | 6,379 | 23.952 | 88.501 | - 414.348 |
| 2025 | 8.954 | 6,701 | 22.628 | 92.641 | - 367.826 |
| 2030 | 8.923 | 7,040 | 2.873 | 96.510 | - 244.597 |
| 2035 | 8.896 | 7,393 | -- | 100.145 | - 105.537 |
| 2040 | 8.873 | 7,764 | -- | 104.141 | + 50.771 |
| 2045 | 8.787 | 8,130 | -- | 108.808 | + 230.319 |
| 2050 | 8.698 | 8,510 | -- | 113.735 | + 439.190 |

* In current dollars, the net EIA negative balance reaches a peak of $1.56 trillion in the year 2019. The earlier date in the real dollar basis reflects the impact of converting current dollars into real dollars.

Source: Alan Clayton-Matthews, EIA Simulation Model

Moreover, in the short run, EIA will not jeopardize the Social Security bank before large scale student repayments begin to materialize. The 1990 Social Security Annual Report forecasts that the Social Security Fund surplus will increase from $297 billion in 1991 to nearly $9.2 trillion by 2025 before declining back toward zero (see Figure 2). As a result, total cumulated EIA borrowing from Social Security -- under the liberal assumptions used in this simulation -- never amounts to more than 42 percent of the Social Security surplus and the percentage falls rapidly after the turn of the century (see Figure 3). EIA fits well within the current projected levels of Social Security surpluses. The "negative" balances in the two figures indicate a positive surplus that ultimately could be transferred to Social Security.

Figure 2
**Social Security Trust Fund and EIA Borrowing**
**1991-2043**

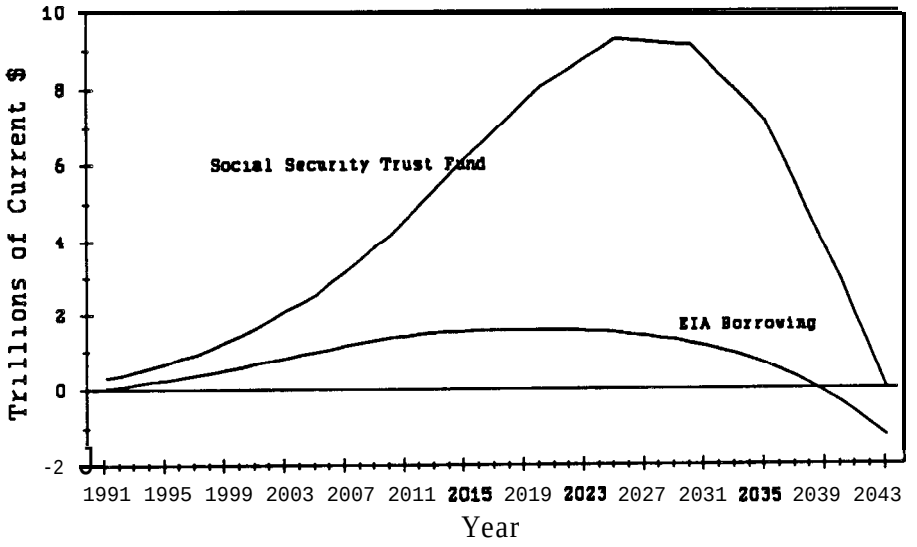
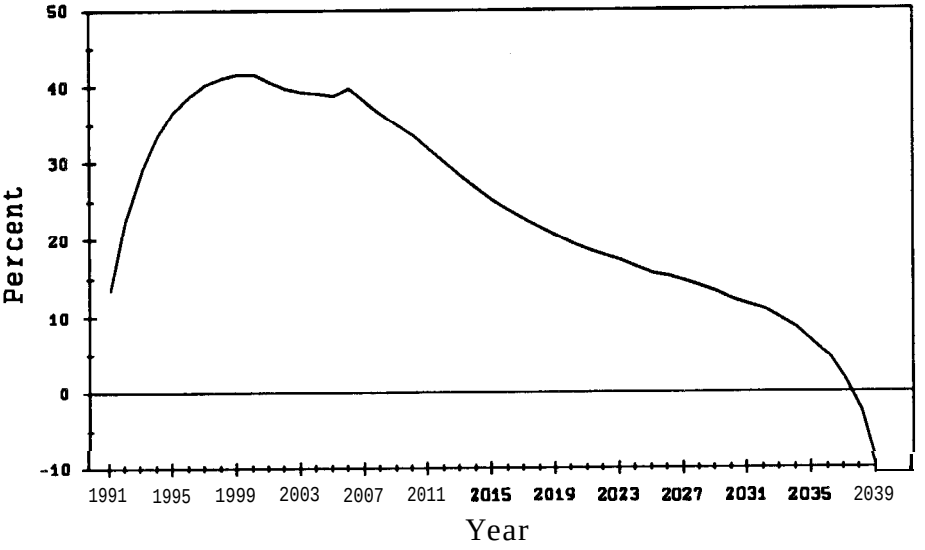



**Figure 3**
**Share of Social Security Trust Fund Borrowed by EIA**
**1991-2039**



**Questions and Answers about the EIA Program**

Any new financing program for education as far-reaching as EIA will inevitably raise a number of serious questions. We try to deal with some of the most pressing ones here.

**Q.** Won't the implementation of such a large scale program as EIA run the risk of adding too much to what we already spend on postsecondary education?

**A.** No, for three reasons. First, EIA will not dramatically increase the overall amount of money being spent on college and university education by those already planning to attend college or university. For them, EIA will simply substitute a better financing mechanism for an inferior array of current funding programs. Second, a reasonable increase in the number attending higher education is now warranted by the superior rates of return that college and university graduates now obtain. We are no longer, if we ever were, "overeducated" as was the belief during the 1970s when returns to higher education temporarily waned. And third, EIA will most expand school resources in vocational training and retraining where the U.S. clearly lags behind the competition.

**Q.** Won't the EIA program jeopardize *public* higher education by encouraging students to enroll in more expensive private schools?

**A.** No. While the repayment rates are reasonable, students will still pay a significant amount of their earnings over their lifetimes in EIA repayments. As a result, students will not automatically abandon public higher education for higher priced private schools. Likewise, the $40,000 lifetime limit on awards forces students to be price conscious in making their investment decisions. Moreover, it is not unreasonable to expect that the overwhelming majority of individuals who decide to pursue higher education precisely because of EIA will choose lower priced public colleges and universities, boosting the overall numbers going into the public sector.

**Q.** Won't EIA lead to enormous increases in the level of tuition and fees?

**A.** No. Continued competition between schools for a relatively stable number of college and university students will ultimately require high priced private schools to limit increases in their tuition and fee schedules. This is likely to occur with or without the EIA program. In any case, if tuition does continue to skyrocket at private schools, the correct remedy is one that is now being implemented, at least tentatively: antitrust action. Ultimately, the EIA Fiduciary Trust could be a powerful ally

against college cost inflation by refusing to permit students to use EIA funds at schools that persist in raising tuition and fees to unacceptable levels. And since lifetime EIA borrowing is limited to $40,000, this will limit tuition and fees increases.

Public colleges and universities may be another case. They may use the EIA program to reduce the size of state government subsidies. On some grounds, particularly given the interstate mobility of students after graduation and the subsidy of middle class students on funds raised by regressive state taxes, increases in in-state tuition may be justified. In an era of restrictive state budgets, EIA would relieve states of some of the tuition burden. Yet, in order to maintain a "good business climate," one can expect state legislatures to maintain relatively low college and university tuition and fee rates in order to provide strong incentives for their citizens to pursue what is presumably productivity enhancing higher education.

**Q.** What keeps unscrupulous operators from setting up "sham" training schools to take advantage of EIA-funded students?

**A.** EIA requires that all institutions eligible for EIA-funded students must be fully accredited and licensed by the states within which they operate. The EIA could be given oversight authority over state accreditation and licensing. To keep tuition and fees in line, the cost of education could be made one criterion for EIA accreditation.

**Q.** What about post-secondary school dropouts? How would the EIA program affect them?

**A.** EIA payments are determined by income levels. A borrower pays the same percentage of income (up to the income cap) whether he or she finishes school or drops out. If someone drops out and goes to work, and his or her income rises, then EIA payments also rise. When the borrower re-enters school and income falls, payments also fall. Dropouts who never return to school still have a 25 year obligation to the EIA program. They pay the same percentage of income as if they had completed school. But if income is reduced because the borrower did not finish, the amount of the EIA payments is also reduced.

**Q.** Won't EIA use of the Social Security surplus reduce the funds available for current deficit reduction?

**A.** Absolutely. But, like Senator Moynihan, we believe that the Social Security Trust Fund surplus should not be "raided" to cover current government expenses. The federal government could continue to cut defense spending, using part of the "peace

**Q.** Won't EIA have a negative effect on philanthropic contributions to institutions of higher education?

**A.** No. Most corporate and individual giving to higher education is for capital expansion, not current expenses. One suspects that corporations and individuals will continue to contribute to college and university endowments for such purposes.

## Summary and Conclusion

It is the rare government program that simultaneously satisfies a number of disparate public policy goals and at the same time has the potential for garnering broad bipartisan support. The Equity Investment in America program has the potential for being one of these. By providing an increase in the level of funding available for postsecondary education, by appealing to the needs of the middle class student as well as the student from a low-income family, by providing a prudent investment opportunity for the Social Security Trust Fund, and by expanding postsecondary funding to training and retraining programs as well as colleges and universities, the EIA program meets both the fairness and investment definitions of "equity."

The specifics of the program can be debated and revised, but the basic structure provides a sound basis for promoting the national discussion on how America can renew its commitment to education and to equal opportunity. Going back to the principles of the GI Bill could provide part of the blueprint for the future.

Generally, students are given between five and ten years to repay their loans after completing school but are charged an annual interest rate of ten percent.

* Perkins *Loans* are paid directly through the student's educational institution and are awarded on the basis of need. In 1986-87, about six percent of all undergraduates received Perkins Loans. On average, they borrowed only about $1,000 a year under the program. In theory, the needs test is more stringent under this program, but the interest rate on repayment is much lower -- five percent. Repayment schedules are similar to those found in Stafford Loans.

* Parent *Loan* for Undergraduate Students (PLUS) and Supplemental *Loans for Students (SLS)* provide shallow subsidies for education loans that private banks make to parents and to independent undergraduate and graduate students. Unlike Stafford and Perkins Loans, there is no financial needs test. However, interest rates on these loans are significantly higher and repayments of at least interest on these loans must begin within two months of the issuance of the loans.

* *Pell Grant* awards, averaging $1,300, went to **18** percent of all undergraduates in 1986-87. These grants are strictly for low-income students and are awarded directly to the student. The largest of the nation's grant programs, the Pell Grant program awarded $3.5 billion in 1986. As the name implies, these are grants and, unlike loans, are not repaid.

* *Supplemental Educational Opportunity Grants* (SEOG) provide funds to postsecondary institutions #at in turn make awards to needy students. The average award to the five percent of undergraduates who received one in 1986-87 was $700.

* College Work-Study assisted more than 750,000 students in 1986-87 with total awards of $662 million. To receive work-study, students must be financially needy and they must work in jobs approved for payment under this program.

## APPENDIX B

Income Contingent Proposals for Financing Higher Education:
A Comparison of EIA with other Income Contingent Plans

The concept of income contingent loans for education is by no means new or novel.[23] In fact, as early as 1945 Milton Friedman proposed such a plan and it is discussed in his 1962 book, ***Capitalism and Freedom.*** According to the Friedman plan:

> A governmental body could offer to finance or help finance the training of any individual who could meet minimum quality standards. It would make available a limited sum per year for a specified number of years, provided the funds were spent on securing training at a recognized institution. The individual in return would agree to pay to the government in each future year a specified percentage of his earnings in excess of a specified sum for each $1,000 that he received from the government. This payment could easily be combined with payment of income tax and so involve a minimum of additional administrative expense (Friedman, 1962, pp. 105-106).

More recently, the Reagan Administration proposed legislation to transform the National Direct Student Loan Program into an income contingent scheme." Under this plan, the annual and lifetime loan limits would be significantly increased, the repayment period would be extended without apparent limit, and repayments would be based on "modified adjusted gross income" of the borrower and his or her spouse (jointly). The interest rate for this program would be sharply increased (from five percent to the 9 l-day Treasury Bill rate plus three percent). Unlike the Friedman plan, only students demonstrating financial need would be eligible to receive loans.

To our knowledge, the most comprehensive program devised to date is one by Robert D. Reischauer, now Director of the Congressional Budget Office (1989). Under Reischauer's Higher Education Loan Program (HELP), student loans would take the form of an entitlement drawn from a dedicated trust fund. All of those who benefited from this entitlement would be required to make small, continuing contributions to support the trust fund. The size of the contributions would vary with the participant's earnings and with the size of the benefit that the participant received. The trust fund would be self-supporting and it would not require subsidies from non-participants. Students would repay their loans through the existing FICA payroll tax system. The original funds for the trust fund could come from private capital markets as well as from Social Security trust funds.

The HELP program (and Friedman's early formulation) provides a good place to begin the development of a fully-detailed education finance plan such as the Equity Investment in America Plan. Its major components: universality, income contingent repayment, and the possible use of the Social Security Trust Fund surplus are all important. However, EIA goes beyond the HELP plan in a number of critical areas.

(1) The HELP plan is constructed primarily for the "traditional" student -- the high school graduate going directly to college and the undergraduate going directly to graduate or professional school. The EIA program provides funds for non-traditional students as well -- those who are beginning their postsecondary schooling later in life or returning to school. This affects the repayment rates for an income contingent program.

(2) The HELP plan is targeted to colleges and universities specifically. The EIA plan extends the same educational funding opportunities to students pursuing training, retraining, and apprenticeship programs outside of the college/university setting. This provides for much greater universality in its application.

(3) Like the HELP plan, but unlike other income contingent plans, EIA explicitly ties its financing to the Social Security Trust Fund and permits the EIA Fiduciary Trust to float additional Treasury bonds if necessary. In this way, the program can guarantee the lowest possible interest rate and assure that there are sufficient funds to permit any and all qualified students to participate fully in the program.

(4) The HELP program suggests that total lending in the first year might be as much as $10 billion. According to various simulations of the EIA program, the first year EIA awards could amount to as much as $39 billion and rise to $55 billion (in 1990 dollars) by the middle of the next decade. Hence, the EIA program is a much more ambitious program, providing America with a source of human capital investment funds for a much broader section of the population.

**APPENDIX C**

## Basic Assumptions of the EIA Program Simulation

### (1) The future economy and future population

The rate of annual wage growth, the inflation rate, and the average rate of interest for trust fund debt obligations, and the projected annual surplus in the Social Security Trust Fund are the taken from the II-B estimates published by the Board of Trustees of the Social Security Trust Fund ("Communication from the Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds," 1989). The most important of the II-B assumptions are presented in Appendix Table Cl.

**Appendix Table Cl**
**Selected Economic Assumptions for EIA Program Simulations**

| | Average annual percentage increase in: | | | | |
|---|---|---|---|---|---|
| Year | Real GNP | Average Annual Wage | CPI | Real Wage | Interest Rate |
| 1991 | 2.4 | 5.5 | 4.5 | 1.0 | 8.2 |
| 1992 | 2.4 | 5.5 | 4.5 | 1.0 | 7.9 |
| 1993 | 2.1 | 5.4 | 4.3 | 1.1 | 7.6 |
| 1994 | 2.2 | 5.5 | 4.2 | 1.4 | 7.3 |
| 1995 | 2.3 | 5.4 | 4.0 | 1.4 | 6.9 |
| 1996 | 2.3 | 5.4 | 4.0 | 1.4 | 6.5 |
| 1997 | 2.3 | 5.5 | 4.0 | 1.5 | 6.4 |
| 1998 | 2.3 | 5.4 | 4.0 | 1.4 | 6.3 |
| 1999 | 2.3 | 5.4 | 4.0 | 1.4 | 6.1 |
| 2000 | 1.8 | 5.4 | 4.0 | 1.3 | 6.0 |
| 2010 & later | 1.8 | 5.3 | 4.0 | 1.3 | 6.0 |

Source: 1990 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, "Selected Economic Assumptions by Alternative, Calendar Years 1960-2065," Table 10. The assumptions used here are from the Alternative II-B scenario.

Population projections are from the Bureau of the Census (Spencer, 1989, Table F (Middle Series)). Mortality rates for the population are also from the U.S. Bureau of the Census. Labor force projections are taken from special runs on the March 1988 Current *Population Survey.*[25]

(2) **The level of postsecondary school enrollment**

**College** and university enrollment rates by age and attendance status are derived from forecasts made by the U.S. Department of Education (Gerald, Horn, and Hussar, 1989, Table 45 (Middle alternative projection)). These rates were applied to the U.S. Bureau of Census population projections. Annual enrollment in non-college training, retraining, and apprenticeship programs was assumed to be equal to three percent of the labor force.

(3) College **enrollments are ten percent higher than U.S. Department of Education projections as a result of the availability of EIA funds.**

(4) **50 percent of all students participate in the EIA program.**[26]

(5) **The average annual EIA award among participants is 60 percent of the maximum allowed and varies according to projected full or part-time enrollment status.**[27]

(6) **Growth in costs of postsecondary education or** training

The expected real rate of growth for postsecondary education costs through the year 2000 was calculated as the average annual rate of growth in real current-fund expenditures per enrollee in public and private institutions of higher education.[28] After the year 2000, the real rate of educational costs was assumed to rise at one percent a year (i.e., one percentage point above the Consumer Price Index).

(7) **The effect of postsecondary education and/or training on an individual's future earnings.**

**Age-earnings** profiles by level of education were estimated from the March 1988 *Current Population Survey.* The profiles were inflated to future years by the Social Security II-B wage rate projections.

(8) **EIA program parameters.**

**The** key program parameters for the simulations presented here include:

* Repayments are made for a maximum of 25 years or through age 65, whichever occurs first.

* The maximum award limit is $10,000 per year and $40,000 lifetime for full-time students. These figures are adjusted each year for expected increases in average educational costs. The limits for part-time students are pro-rated.

* The EIA repayment rates are set to yield the U.S. Treasury Bond rate plus a premium of 1.75 percentage points.

* Repayment is subject to an annual $50,000 earnings cap (adjusted yearly for increases in the average annual wage).

June 1990

* * *

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## Endnotes

1. The Servicemens' Readjustment Act, or as it was popularly known, the GI Bill of Rights, still stands out as perhaps the most successful education investment program ever initiated by the federal government. Following the end of World War II, the federal government provided $14 billion in education and job training benefits for 7.8 million veterans (Congressional Research Service, 1986, pp. 10, 24). The 7.8 million who took advantage of the GI Bill from June 1944 to the end of the program in the early 1960s represents just over half (50.5 percent) of the eligible veteran population. Approximately half of the total budget for the program was spent on the 2.2 million GIs who used the funds to attend college or graduate school. According to the Library of Congress, 2.2 million or 28.5 percent of the 7.8 million attended college under the bill; 3.5 million or 44.6 percent attended other schools including proprietary training schools: 1.4 million or 18 percent received on-the-job training under the bill: and the remaining 690,000 or nine percent were farm trainees. See Appendix A for a review of the current methods used to fund postsecondary education in the United States.

2. Ultimately, it is the goal of EIA to provide funding so that every year three percent or more of the labor force would be able to avail themselves of vocational training or retraining. This would be part of a new "active labor market policy" for the nation aimed at constantly upgrading and improving the technical skills of the workforce.

3. These figures were calculated from the March 1988 Current Population *Survey* and reflect the difference in present discounted values between high school graduates and those with less than four years of college and those with an undergraduate degree or more. Expected earnings were calculated through age 65 based on actual March 1988 earnings by age. Earnings were projected to future years and discounted by expected future interest rates using data on wage rate growth and interest rates from the Social Security Administration. For the wage rate growth and projected interest rate assumptions, see "Communication from the Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds," 1990.

4. According to the U.S. Department of Education, in the 1986-87 school year, the average full-time, full-year undergraduate had total estimated expenses (including tuition and fees, food and housing, and other expenses) of $8,187. This figure ranged from $4,588 in two-year public institutions to $12,757 in four-year doctoral granting private not-for-profit universities and colleges, For part-time or part-year undergraduates, the figures are $4,957, $3,464, and $7,680 respectively (see National Center for Education Statistics, 1988).

5. Such a plan involving no subsidy to program participants and hence no burden on taxpayers is referred to as a "mutualized plan" -- one in which all costs are covered by borrower repayments. Losses due to borrower low income, death, or disability are covered by repayments above cost by higher income borrowers (see Riddle, 1982, p. 5).

6. Appendix B provides a brief overview of earlier income contingent college funding programs.

7. While eliminating these two federal loan programs, EIA would maintain the Pell and Supplemental Educational Opportunity Grants (SEOG) grant programs as well as College Work-Study. These programs are needed for those students who come from the most financially disadvantaged families. They provide a direct subsidy to these students in order to furnish an incentive to pursue postsecondary education. In 1986-87, 40 percent of black undergraduates, 29 percent of American Indian undergraduates, and 26 percent of Hispanic undergraduates received Pell grants (see National Center for Education Statistics, 1988, p. 55).

8. Beyond this age, the EIA program would provide no major advantage over short-term bank loans, as the dividend repayment period would be less than ten years and thus the EIA dividend repayment rate would have to be quite high to be actuarially sound.

9. Some of these new training programs would presumably be in the form of "apprenticeships" in a range of white-collar and blue-collar fields, something akin to apprenticeship training in a number of European nations. These new apprenticeships would have to be licenced by state government education agencies in order to permit students to use EIA funds to pay for them.

10. The earnings cap is built into EIA in order to avoid what economists call "adverse selection" -- the tendency among those who expect to have high salaries to opt out of the program. If large numbers of those who expected high incomes were to avoid the program so as to escape fixed repayment rates on very high incomes, the repayment rates on all participants would have to much higher. Setting an earnings cap reduces the redistribution effect of the EIA marginally, but enhances the overall financial viability of the program.

11. Under the buyout provision, an individual can at any time foreclose any further obligation to the EIA program by paying a lump sum equal to 1.9 times the outstanding present discounted value of the average expected stream of repayments for that individual's EIA cohort. The prepayment "premium" of 190 percent is set to be actuarially equivalent to the $50,000 earnings cap. Hence, disregarding the "insurance" benefit of having repayments income-contingent, an individual with earnings above $50,000 would be indifferent between repaying EIA over the full 25 year repayment period and "buying out" his or her EIA obligation once and for all.

12. This option would be exercised in the event that student demand for awards was so great that the EIA Trust Fund would require more than 50 percent of the outstanding Social Security surplus. Under the simulated conditions discussed later in this proposal, this option would not have to be utilized. This is true despite a significant simulated expansion in the demand for postsecondary schooling and liberal use of EIA awards.

13. In practice, EIA borrows from the Social Security Trust Fund by issuing non-marketable government guaranteed 15-year bonds. If EIA were implemented in 1991, the first of these bonds would mature in 2006.

14. Current federal loan programs provide only a fraction of the funds needed by most students. As noted in the text, the largest of these, the Stafford Student Loan program (formerly the Guaranteed Student Loan (GSL)) provides a maximum of $2,625 per academic year for the first two years of undergraduate study and $4,000 for each subsequent year up to a total of $17,250. Supplemental Loans for Students (SLS) has a maximum annual loan amount of $4,000 and a total of $20,000. Perkins loans (formerly the National Direct Student Loan program) has the highest maximum: $4,500 per year for the first two years of undergraduate study. $9,000 for the third and fourth years, and $18,000 for graduate study.

15. The Stafford and Perkins loans are only available to students who have a demonstrated economic need. Students above the standard of need are not eligible and must find alternative means of funding their schooling. These alternative sources are often quite expensive. One example is the Education Resources Institute TERI loan. With a TERI loan, a student can borrow up to $20,000 a year with no income limit or "needs test." However, the present rate on TERI loans is normally the prime rate plus two percent. With a deferment on interest and principal while in school, a typical TERI loan with a five-year term carries an annual percentage rate (APR) of 15.3 percent at regular commercial banks. Professional Education Plan (PEP) loans for graduate study can be even more expensive if the student does not have a co-applicant. The APR on a five-year loan with a two-year deferral of principal and interest is currently in the range of 18 percent.

16. Presently, the default rate on education loans is 18 percent for those who go to two-year public colleges, 14 percent for those who attend two-year private colleges, seven percent for those who go to either private or public four-year schools, and a whopping 33 percent for those who use their loans to attend trade schools (see Gupta, 1990, p. B2).

17. The original Moynihan proposal is contained in Moynihan, 1989.

18. The model was developed by Alan Clayton-Matthews at the Social Welfare Research Institute at Boston College. He also performed the simulations and projections presented in this report. The assumptions used in the simulation are found in Appendix C.

**19. In** terms of the financial burden to the individual, the simulation analysis estimates the costs in terms of an EIA percentage factor per thousand dollars of investment. The factors vary with the age of the recipient at the time of the investment award in order to take into account the different earnings streams of individuals of different ages and to account for the foreshortened repayment period for those over age 40. The repayment factor also varies with the year in which the award is made in order to account for the growth in average earnings over time. The schedule of repayment factors is available in a special appendix to this report available from the Economic Policy Institute.

20. The earnings cap in the year 2013 -- when Bob is age 40 -- is $66,500 taking into account the average expected growth in earnings.

**21.** Contrary to popular perception, postsecondary school students represent a broad cross-section of the nation's citizens by age as well as by gender and race. Of all students, about 54 percent are female. See Gerald, Horn, and Hussar, 1989, p. **17.** In 1986 there were 2.2 million minority students, about half of whom were black and 625,000 Hispanic (American Council on Education, 1989, p. 67). The percentage of "non-traditional' students -- those over age 25 -- has been growing. In 1988, over 10 percent were age 30-34 while another **16** percent were 35 years of age or older. Hence, more than one-fourth of current higher education enrollments are comprised of individuals who are "thirtysomething" or better. See Gerald, Horn, and Hussar, 1989, p. 23.

22. Detail on these educational loan and grant programs is taken from Reischauer, 1989: American Council on Education, 1989; and National Center for Education Statistics, 1988.

23. For more information on income contingent plans, see Riddle, 1982.

24. For details on the Reagan Administration program, see Riddle, 1986.

25. Labor force participation rates by age from the March 1988 CPS were applied to the U.S. Bureau of Census population projections to project future labor force levels. Separate projections were made for men and women, and for whites and people of color.

26. This rate is significantly higher than current federal loan participation rates and reflects the more favorable terms of the EIA program as well as the elimination of "needs based" eligibility. In 1986, 46 percent of all undergraduates received some form of financial aid -- loan, grant, or both. Federal loans went to 24 percent of all undergraduates and 26 percent of all graduate and professional students. See National Center for Education Statistics, 1988, p. ix; and National Center for Education Statistics, 1989, p. ix.

27. The average award in **1991** is estimated to be $4,638 (in current dollars) taking into account the current ratio of full-time to part-time students and factoring in the number of students electing training and retraining programs. This compares with an average undergraduate federal loan amount of $2,456 in 1986. See National Center for Education statistics, 1988, p. ix.

28. Calculated from Gerald, Horn and Hussar, 1989, Tables 3 and 38 (Middle alternative projections).

**Bibliography**

American Council on Education. "Minorities in Higher Education" Washington, D.C., 1988.

American Council on Education. 1989-90 *Fact Book on Higher Education. New* York: Macmillan, 1989.

Bluestone, Barry. The Great U-Turn Revisited: Economic Restructuring, Jobs, and the Redistribution of Earnings." In John D. Kasarda, ed., Jobs, *Earnings, and Employment Growth in the United States.* Boston: Kluwer Academic Publishing, 1990.

The College Board. *Annual Survey of Colleges. New* York: The College Board, 1988.

"Communication from the Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds." Transmitting the 1989 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds Washington, DC: U.S. Government Printing Office, 1989.

"Communication from the Board of Trustees, Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds." Transmitting the 1990 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. Washington, DC: U.S. Government Printing Office, 1990.

Congressional Research Service. "Veterans* Education Assistance Programs." Report #86-32 EPW, January 31, 1986. Washington, DC: Library of Congress, 1986.

Friedman, Milton. *Capitalism and Freedom* Chicago: University of Chicago Press, 1962.

Gerald, Debra E., Paul J. Horn, and William J. Hussar. Projections of *Education Statistics to 2000.* National Center for Education Statistics, U.S. Department of Education, Office of Educational Research and Improvement, NCES 89-648, December 1989.

Gupta, Udayan. "Governments Crack Down on Abuses at Trade Schools." *Wall Street Journal,* April 26, 1990.

Kuttner, Robert. The Patrimony Society." *The New* **Republic,** May 11, 1987.

Moynihan, Daniel Patrick. "A Proposal to Cut Social Security Taxes." U.S. Senate, December 29, 1989.

National Center for Education Statistics. *Undergraduate Financing* of *Postseconciay Education.* Report CS88-239. Washington, D.C.: Department of Education, June 1988.

National Center for Education Statistics. *Student Financing of Graduate and Professional Education.* Report No. CS 89-303. Washington, D.C.: U.S. Department of Education, March 1989.

The New *York Times.* "How to Pay for Social Security," January 24, 1990, p. A22.

Reischauer, Robert D. "HELP: A Student Loan Program for the Twenty-First Century." In Lawrence E. Gladieux, ed., *Radical Reform or* Incremental Change? New York: College Entrance Examination Board, 1989.

Riddle, Wayne. "Income Contingent Loans: Background and Analysis." Washington, DC: Congressional Research Service, Library of Congress, April, 1982.

Riddle, Wayne. "Student Loans - An Income Contingent Approach Proposed by the Reagan Administration for National Direct Student Loans." *Journal of Education Finance,* Vol. 12, Fall 1986.

Semerad, Roger D. "Improving Access to Preschool and Postsecondary Education" Testimony before the Subcommittee on Education and Health of the Joint Economic Committee, December 14 and 15, 1988. Mimeo. Washington, D.C. 1988.

Spencer, Gregory. "Projections of the Population of the United States, by Age, Sex, and Race: 1988 to 2080." In Bureau of the Centsus, *Current Population Reports, Population Estimates and Projections, Series* P-25, No. 1018, January, 1989. Washington, DC: U.S. Department of Commerce, 1989.