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ABSTRACT

The papers presented at the symposium include: Student Loans: Some Practical Radical Alternatives (D. Bruce Johnstone); Solving the Student Loan Problem by Supplementing Government Loan Policy--An Expanded Role for Institutional Aid Administrators in the 1980's (Kurt L. Kendis); Estimating Manageable Educational Loan Limits for Graduate and Professional Students (Dwight H. Horch); Student Loan Policy: A Modest Agenda for Change (Dennis P. Kernahan); and A Case for the Status Quo--With Better Management. The appendixes include a comparison of seven federal student loan programs, and grantee agency profiles. (MSE)

STUDENT LOANS: ALTERNATIVES FOR REAUTHORIZATION

(Papers presented to the NASFAA/ACE Invitational Symposium on Student Loan Programs, April 10-11, 1978)

National Association of Student
Financial Aid Administrators

910 Seventeenth Street, N.W.
Washington, D.C. 20006

NASFAA is a non-profit corporation of institutions of postsecondary education and other individuals, agencies and students who are interested in promoting the effective administration of student financial aid in the United States. The papers included in this monograph were developed for an invitational symposium convened to evaluate the current student loan programs in terms of their effectiveness in serving the needs of this nation's students. The second purpose was to examine and discuss potential changes to the programs to improve their management and equitability in providing access and choice to postsecondary education for all students.

The objective analysis which resulted among representatives of the federal government, agencies and financial aid administrators will undoubtedly improve not only the attitude of the various clientele groups, but ultimately the effectiveness of the program.

Copies of this monograph may be ordered from the National Association of Student Financial Aid Administrators, 910 Seventeenth Street, N.W., Suite 217, Washington, D.C. Pre-payment in the amount of $5.00 must accompany all orders.

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PREFACE

During the coming months the Congress of the United States will consider legislation to reauthorize federal student aid programs in 1980. In preparation for this reauthorization process, NASFAA and several other higher education associations have begun to examine the current programs of loan, work and grant aid and to formulate potential revisions to improve their overall management and equitability. To this end, the American Council on Education and the National Association of Student Financial Aid Administrators (through its Committee on New Legislation) are co-sponsoring a series of three invitational symposia on loans, work and grants with representatives of the higher education associations, U.S. Office of Education, Congressional staff, and aid administrators.

The first in this series was held April 10-11 in Washington, D.C. and addressed the student loan programs.

USOE Deputy Commissioner Reviews Federal Programs

Leo Kornfeld, Deputy Commissioner of the Bureau of Student Financial Assistance, began the discussion with a review of current federal loan programs, citing the historical development of student loan programs, their complexity and problems.

Specifically, Mr. Kornfeld used the two charts included as Appendix A as examples of the complex and inconsistent terms between the currently existing federal loan programs as they are administered by both the federal and state governments. He attributed the highly publicized default rates for both the NDSL and GSL/FISL programs to the lack of systematic billing systems, administrative problems at the institutional level, and claim procedures which never were formalized through regulation.

The Bureau of Student Financial Assistance has initiated a series of steps to correct these problems, however, and will be implementing many more as soon as possible. These include the recently published regulations on Limitation, Suspension and Termination of institutional eligibility, simplification of regulations to make them more understandable, and providing more help in locating defaulted borrowers through such efforts as IRS skip-tracing. He also indicated that a small task force within the Bureau is working to identify other areas for possible simplification, including a common GSL application form.

In short, the Bureau has identified many problems with the current programs and is attempting to address them as a group.

Reactions to Kornfeld's Statement

In reacting to Mr. Kornfeld's presentation, Jerry Gibson, Director of Fiscal Services at Harvard University, reiterated the need for research on maximum debt levels. He also suggested the "parent loan" concept as one method of providing additional aid to upper-middle income families.

Greg Lancaster, Vice-President of Security Pacific National Bank, explained that the 1976 law is not bad. It simply requires a commitment to partnership between the commercial lending community, the federal government and educational institutions to be effective. He suggested several methods of getting more banks in

volved, including (1) providing an administrative allowance, (2) providing for a loan origination fee to cover a lender's administrative costs, and (3) simplifying the loan program's operating and reporting requirements.

According to J. Wilmer Mirandon, President of United Student Aid Funds, getting the lenders, school administrators and government officials together as a team is a key factor in achieving the single goal of the student loan programs, which is to provide loans to deserving students. He presented a strong case for utilizing state and other localized agencies to administer federal loans for several reasons.

First, it must be recognized that the agencies have a much greater influence over lenders, schools, and students in their local areas and the team effort in which (1) schools teach, (2) lenders l[illegible], and (3) government subsidizes and governs, as provided in the current program, should be accentuated. With about $13 billion in cumulative loans and $6 billion outstanding, it is obvious that this teamwork is vital.

Second, agencies have good lender support through efficient, business-like programs. Mirandon admitted the need for more lenders even in agency states, but pointed to the development of "total lenders" across the country to make loan funds available to all students.

Agencies have lower default rates chiefly because, according to Mirandon, they keep in touch with student borrowers while in school. In addition, in order that defaults do not become losses, some agencies are able to refinance notes [illegible] terms which are more favorable to defaulting borrowers.

Finally, Mr. Mirandon pointed to the "gap-filling" programs such as graduate-level and parent loan programs which are administered by some of the agencies as another method of getting loans to deserving students.

Before contemplating the 1979 legislation, Mirandon encouraged OE to fully implement the 1976 legislation as a team, placing heavier responsibilities on state and private agencies.

Five Alternatives Presented

Following this evaluation of the effectiveness of the current programs, five papers were presented, exploring alternatives which might be considered in developing legislative positions for the higher education community. Because of the detail presented in these papers and the broad scope of the alternatives suggested, these papers are included in their entirety in this publication.

NASFAA's Committee on New Legislation Develops Discussion Paper

After carefully reviewing these alternatives and evaluating the effectiveness of the current loan programs, NASFAA's Committee on New Legislation, under the direction of Jim White of Oberlin College, developed a discussion paper, which was distributed to the NASFAA membership on June 15, to solicit grass roots input from the aid community. This paper, and one developed by NASFAA's Title IV Student Assistance Programs Committee, were discussed by those attending the National Conference in San Francisco in July. The responses which are coming to the committees on these two papers will be used to develop their final

legislative recommendations which, in turn, will be submitted to NASFAA's National Council for adoption.

Acknowledgements

As a part of the charge to the Committee on New Legislation for 1977-78, NASFAA President Joe McCormick directed the Committee to hold a symposium to bring together the higher education associations, governmental staff, state and private agency personnel and representatives of the financial aid community to discuss the current student loan programs and methods of improving them, looking toward the development of legislative proposals for the reauthorization in 1979 and 1980. The aid community should recognize the time and efforts of the entire Committee on New Legislation for their work in developing this symposium and in providing a reasoned proposal for positive amendments to ensure access and capital availability for the loan programs. In particular, recognition is due Jim White of Oberlin College for chairing this Committee.

Special thanks also is given to Pat Smith and Jack Hughes of the Policy Analysis Service of the American Council on Education. ACE co-sponsored the symposium with NASFAA and provided a great deal of assistance in planning and making arrangements for the meeting.

Without a doubt, each of the papers presented contributed to the discussions and thinking of all the participants and particular appreciation is due Leo Kornfeld, Deputy Commissioner of the Bureau of Student Financial Assistance, J. Wilmer Mirandon, President of United Student Aid Funds, Jerry Gibson of Harvard University, Greg Lancaster of Security Pacific National Bank, Bruce Johnstone and Kurt Kendis of the University of Pennsylvania, Dwight Horch of the Graduate and Professional Financial Aid Service, Dennis Kernahan of Sallie Mae, and Jay Evans of the Pennsylvania Higher Education Assistance Agency.

The NASFAA Committee on New Legislation

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STUDENT LOANS:
SOME PRACTICAL RADICAL ALTERNATIVES

D. Bruce Johnstone

The last time I addressed a group such as this on the subject of student loans was at the November 1975 conference of the College Board Loan Study Group, of which I had been a member. My paper was the overview of issues and policy alternatives. I recall Colin Blaydon, one of the reactors to my paper, in a wise and gentlemanly way chiding me for being too conventional. ... too practical. . . . . too constrained by the given patterns and structures of the existing loan programs. He was undoubtedly right.

And yet, since assuming the burden of supposedly knowing something about student loans, I have spent many days contending with the contributions of colleagues who do not share these maladies of practicality or political realism. Many are economists who, by their membership in that profession, are generally intolerant of imperfections such as subsidies, interest ceilings, debt limits, and other blights on the human capital market. They, too, are right: with the right simplifying assumption and under the cover of ceteris paribus, it it is hard to be wrong. But I find it difficult to engage my own mind, much less the minds of my listeners, for very long on the perfect but hypothetical loan program for the perfect but hypothetical world of introductory economics.

Then there is the third source of voices I feel bound to heed. They are the voices from the trenches, as it were, of federal, state, and institutional student loan programs. They are the voices that remind me how little I really know about the whole thing actually works, and that come near to convincing me that major alternatives--truly radical changes--are next to impossible.

So I will try to be radical and unconventional and practical and realistic all at the same time, and to suggest some alternatives that would substantially change, for the better, student lending in the United States.

D. Bruce Johnstone is Vice-President for Administration of the University of Pennsylvania. A graduate of Harvard (economics undergraduate and the Harvard Graduate School of Education), he holds a Ph.D. from the University of Minnesota. Dr. Johnstone has been with the University of Pennsylvania since June 1972.

PROBLEMS AND LIMITATIONS WITH THE PRESENT SYSTEM OF STUDENT LOANS.

No change makes much sense to any but the unabashed theoretician unless it stems from a perception that there are problems or limitations with the present system and that some alternative has some chance of doing something bette By the 'present system,' I mean the unsystematic occurrence of the National Direct Student Loan Program ($310 million annual lending, with approximately $3.3 billion total outstanding), the Guaranteed and the Federally Insured Student Loan Programs ($1.3 billion annual lending with approximately $6 billion total outstanding debt), and several smaller programs, the newest and most potentially significant of which is the Health Professions Guaranteed Student Loan Program.

The problems and limitations of the present programs can be described in many different ways. The differences are mainly in argumentation rather than in substance. That is, I would not identify the phenomenon of diverse and unconsolidated loan instruments as a problem in itself, but as a very major contributor to a number of more ultimate problems such as capital shortfalls, unwieldy repayment provisions, and defaults. However, if someone else wants to call diverse and unconsolidated loan instruments "a problem," I would be one of the last to disagree. With this caveat, let me mention the six that I suspect appear on most lists:[1]

Insufficient or uncertain or potentially insufficient capital availability.

I hedge a bit on labeling this one because I believe there is some question about how much of a problem capital availability is today. Most observers seem to believe there is a problem--that is, that banks, the Student Loan Marketing Association, and other ultimate and intermediary sources of savings are not channeling as many dollars into student loans as are needed. Without questio there was an aggregate capital shortage prior to the establishment of Sallie Mae, the increase in the special allowance, and the easing of money, all of which occurred at about the same time. Present, admittedly skimpy, evidence suggests a persisting, if uneven, student loan capital shortage.[2] And most projections of the future borrowing needs suggest levels considerably beyond those that the present cast of bank and school lenders will be able adequately to handle. Thus it should seem prudent to conclude that banks and the present institutional (school) lenders, even with Sallie Mae behind them, constitute at best an uneven, slightly unreliable, and potentially inadequate source of student loan capital.

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1. The list of "problems" draws on the paper cited in the opening paragraph: D. Bruce Johnstone, "Federally Sponsored Student Loans: An Overview of Issues and Policy Alternatives," in Lois D. Rice, ed., Student Loans: Problems and Policy Alternatives. New York: College Entrance Examination Board, 1977.

2. See Ira J. Burney and Stephen P. Dresch, "The Capital Market for Advanced Education: An Analysis of Private Market Failure and the Failure of Public Policy." New Haven: Institute for Demographic and Economic Studies, Inc., 1978.

Uneven and discriminatory access to student loans.

Related to but separate from the problem of an insufficient aggregate supply of student loan capital is the problem of uneven and discriminatory access to loans. In the absence of fundamental changes, there will continue to be regions, schools, and kinds of students--marked most often by the absence of a "family banking relationship"--unable to get student loans.

Discrimination among students is not ipso facto pernicious. Rationing may be necessary in any system, and public policy often targets a program on a particular set of beneficiaries. What is wrong with the present system is that whatever discrimination exists seems most likely to exclude groups that recent public policy if anything has tried to include: minorities, students from low income families without established banking relationship, women, first year students, and students who are willing and able to borrow and who are in great need of loans but who have not qualified for the interest subsidy. I would summarize the problem of access to loans by observing that the present pattern of success in borrowing does not conform to either federal or college practices of broadening access to higher education through packages of student financial assistance that includes grants, jobs, and loans.

Insufficient attention to the manageability of repayments.

There are a host of changes, most of them conceptually and technically simple, that would make student loans easier to handle for borrower and lender alike. They include:

*Consolidation of all federally sponsored loans into one instrument with one repayment schedule and one set of terms.

*Longer repayment periods for larger debts, shorter periods (or the elimination of disincentives to early payment) for smaller debts, graduated repayment schedules for those who wish them, and easier refinancing for those who need it.

*Some provision for refinancing or even for relief in the event of insufficient earnings to handle the scheduled repayments.

*Use of the personal federal income tax for the purpose of locating borrowers, reminding borrowers of obligations, and facilitating either deferment or forgiveness in the event of very low income.

Each of these proposals--and there are more--is compatible either with the existing program or with an extensive new one. If we do not substantially reshape our federally sponsored student loan programs, I hope that some of these devices can still come to pass through either legislative or executive action.

Potential future debt loads.

Although I am at ease with an important and growing role for loans in financing the expenses of higher education, I am worried about the combination of out-of-control tuitions, particularly in medical and other advanced professional schools, a potential flattening of the expected earnings curve for many of these professions, and the temptation (indeed, the need) to turn to very large debt loads in order to make it possible for students in some of these fields to complete their educations. Already, students from our School of Dental Medicine at the University of Pennsylvania are emerging with an accumulated educational debt as high as $40,000. Adding the very considerable debts from setting up a practice and buying a home--not to mention a spouse with an educational debt--paints a frightening picture. True, the alternative of further burdening the taxpayer has its problems of social equity. And some of the burden of heavy educational debts can be eased in ways other than shifting the cost to taxpayers or to other borrowers. But at present, the assumption that advanced professional--especially medical and other health related--students can absorb virtually any debt level is too casual and ought to be considered one of our problems.[3]

Defaults.

Defaults are problems. They are so partly--but only partly--because they cost the taxpayer money. Even a substantial default rate does not cost as much as interest subsidization. More important is the image of lawlessness and disrespect for contract that is conveyed by a high rate of default.

The rate of default on student loans will always be higher than other forms of commercial loans by virtue of the absence of collateral, the lag between origination and initiation of repayment, and the extraordinary mobility of students in the early repayment years. I am convinced, though, that the rate of default can be brought down substantially--certainly well below 10 percent and perhaps below 5 percent--with some of the provisions I suggest below.

Costs of loans to taxpayer.

A final problem is the high cost of the student loan program. I list this as a "problem" with some ambivalence, because although the high cost is a fact, it is not clear that it is avoidable or that any of the measures that might substantially reduce costs would provide any net public good. Calculations that I have published elsewhere suggest, with certain assumptions, a discounted net cost per $100 lent of $53.72 for National Defense Student Loans and of $41.00 for Guaranteed Student Loans.[4] The greatest cost by far--$31 of the $41 dollars of cost in the G.S.L. example--are interest subsidies. I do not share the aversion of some of my colleagues toward subsidies as a matter of principle. But I do question whether some of that $31 might have been spent in some other way, still in pursuit of the very ends being sought by the federally sponsored student loan program. And even if the cost effectiveness of such

3. Dwight Horch, "Estimating Manageable Educational Loan Limits for Graduate and Professional Students." Princeton: Educational Testing Service, December 1977. (Reprinted by permission of Educational Testing Service.)

4. Johnstone, "An Overview of Issues and Policy Alternatives," pp. 34-42.

features as the interest subsidies during the in-school years, the special allowances, and the below market rate of interest during the repayment years holds up under scrutiny, these costs are increasingly going to impact the federal budget with possible negative consequences either toward the loan programs themselves or toward the other student aid programs sharing the same slice of the budgetary pie.

* * * * * *

A RADICAL PRACTICAL ALTERNATIVE FOR FEDERALLY-SPONSORED STUDENT LOANS

It is time to make a number of fundamental changes in our federally-sponsored loan programs. "Fundamental change" is never easy--and especially when it affects the Department of Health, Education and Welfare, the Office of Education, the Student Loan Marketing Association, nearly 30 state loan guarantee agencies, the Internal Revenue Service, and the financial aid practices and offices of 4000 to 5000 schools whose students depend to greater or lesser degrees on loans to meet a portion of the costs of their higher education. But wait. . . perhaps the changes are not so very wrenching after all. Perhaps fundamental changes need not be utterly impractical or unimplementable. At least nothing I can suggest will be surprising to listeners or readers who have been urging these, and more, for years. Here, then, is my list.

1. A single federal guaranteed loan program would be created to take the place of the present Guaranteed Student Loan, National Direct Student Loan, and Health Professions Guaranteed Student Loans.

Each (new) student borrower would have a single loan account and, upon initiation of repayment, a single note, payment schedule, and payee. There would be annual and aggregate limits on borrowing, with substantial aggregate debts possible only for the advanced professional schools that wish to combine high student expenses with high income prospects. The maximum repayment periods would be a function of final aggregate debt, with substantial periods (e.g., 20 years) for large debts (e.g., $40,000). All other terms and conditions--interest rates, interest subsidies, deferment periods, and choice of repayment schedules--would be the same for all loans and should be set annually by the Executive Branch according to Legislative guidelines and with Legislative oversight.

Given this unified student loan plan, a great many questions arise. Is 7 percent the appropriate rate of interest? Should the interest rate be variable over the life of the loan? Should there be an interest subsidy--for whom? Should repayments be expected in equal or graduated installments? All of these are essentially of a second order--easily resolved and of no great consequence to the system itself. For the record--and without here taking the time to justify my choices--I would opt for:

> *In-school interest subsidies on all loans through a baccalaureate degree; automatic accrual of interest on loans for pursuit of graduate and advanced professional degrees.

*Repayment schedules that normally increase over time in accord with an estimate of earnings; borrowers should have considerable latitude in selecting and in changing repayment schedules.

*A slight increase--perhaps to 8 or 9 percent--in the interest rates to somewhat better reflect money costs (implying a continuation of the fixed rather than a variable interest rate).

*Loan limits (at present) of $2500 per year for first two years; $3000 a year for second two years; $5000 a year for graduate arts and sciences, education, and social work; $7500 a year for graduate business law, and other professional programs. Repayment periods for larger debts should be extended to 15, 20, and as long as 25 years.

2. All new loans would be made by the National Student Loan Bank.

The N.S.L.B. would be an instrumentality of the federal government. Its capital would come from its own issues, which would bear government guarantees. Its assets would consist of the loan receivables, also bearing federal guarantees. Initial capital would come from the purchased assets of the Student Loan Marketing Association, which would in effect become the N.S.L.B., and possibly from existing N.D.S.L. receivables converted to the new form of note.

Commercial banks would have a regular role in the origination of loans in this plan, although they might still provide important sources of capital to the National Loan Bank and might also serve as servicing agents under contract from N.S.L.B.

3. Loans would be originated by the postsecondary institutions acting in an agency capacity for N.S.L.B.

Prior to each lending cycle, the participating schools would apply to N.S.L.B. for credit lines based on numbers of students, needs of students, and the like (not unlike the present tripartite application process). Upon disbursement of loans to the students, the schools would pass the processed notes on to N.S.L.B. (probably a state or regional office). The mechanics of borrowing and lending would be as though the present Student Loan Marketing Association (Sallie Mae) were to give each F.I.S.L. school a guaranteed purchase commitment and were then to take physical custody of the loans and all servicing and collection responsibilities. Institutional eligibility would be predicated upon the maintenance of proper records, prompt notification of N.S.L.B. upon student's graduation, etc. All notes would continue to bear a 100 percent guarantee from the United States government. There would be no federal student loan

apparatus, office, or employees other than in the N.S.L.B. The federal reinsurance of state guaranteed loans would be phased out, with a modified role (see #4 below) for the existing state guarantee agencies.

4. The N.S.L.B. would establish regional or state offices to:

   a. Assist and monitor institutional originators;

   b. Handle the conversion of existing loan notes (see #6 below);

   c. Take physical custody of loans processed in the participating institutions and disburse funds to the originating institutions;

   d. (For a few states able to do so) perform servicing and collection responsibilities.

Where states have existing guarantee agencies, these agencies may choose to perform the services needed by the N.S.L.B. In non-agency states, or in states which choose to phase out their guarantee agencies, the N.S.L.B. will establish state or regional offices or contract with a nearby state agency to perform the needed services on a regional basis. The aim of this provision is to preserve the advantages of regionalized attention to student loan needs and to preserve wherever possible the experience, personnel and apparatus of the state agencies while phasing out the role of the state as a guarantor (a role that, with 100 percent reinsurance, has virtually ceased to exist anyway in any meaningful sense).

5. All servicing and collection responsibility would be borne by the N.S.L.B.

While colleges and universities are the proper originators of loans, they are not particularly effective as servicing or collection agents. More and more of them--as of banks--have realized this and have turned to one of the private loan servicing agencies to maintain records, send bills, and in the case of delinquency to proceed with "due diligence" through the five stages of student lending--assumption of risk, provision of capital, origination of loans, servicing and collection of payments, and provision of subsidies--become uncoupled, there seems to be less and less reason for keeping the college involved in any stage beyond origination, record keeping, exit interviews, and preparation for repayment. The federal government bears all risk, and it is not clear that this risk is at all lessened (it may in fact be heightened) by the continued identification of the debt obligation with the college experience. The colleges gain little, and probably lose some, by an alumni contact that is mainly dominated by the need to bill for past accounts. If a college originates the loans poorly or neglects exit interviews or is otherwise remiss in its obligations, the proper remonstration is a removal or a curtailment of new lending authority.

Little or nothing seems gained, then, by the continued identification, or physical custody of notes, by the college. The actual servicing would undoubtedly be worked out by N.S.L.B. with a number of specialized loan service agencies. As suggested above, these might at times be the existing or neighboring state agencies.

6. The N.S.L.B. would purchase as rapidly as possible existing loan portfolios, beginning with the portfolio held by Sallie Mae. Existing loans, to the extent legally possible, would be converted to seven percent paper and consolidated into single accounts for each borrower.

This exercise, while aesthetically attractive, probably need not consume major amounts of resources, at least in the early years of N.S.L.B. In time, however, most of the existing paper should be converted into forms compatible with the new notes and the new servicing system.

7. All borrowers required to file for personal income tax would provide information about their N.S.L.B. status (in or not yet in repayment), the aggregate debt owed at the close of the tax year, the amount of principal and interest paid during the tax year, and any amounts past due. Interest paid would entitle the taxpayer to a (50%) tax credit up to a maximum of ($500) with amounts thereafter deductible like ordinary interest. A supplemental tax schedule would be required for all student borrowers.

Most schemes that have linked student loan repayments with the income tax have done so in pursuit of the principle of income contingency--that is, making the amount of repayment due itself a function of reported income. I believe there remains a role for a linkage between repayment and income, and suggest one such relationship in principle #8, below. But the principle purpose of mandatory filing, a supplemental schedule, and a tax credit for the first $1000 of interest paid is much simpler--namely, to combine the pervasive coverage of the personal income tax with the monetary incentive of a tax credit to reach, remind, and monitor borrowers about their repayment obligations.

The Internal Revenue Service has a quite proper aversion to being used as a collection agency for ends other than the payment of taxes. Given the potential for loading the Form 1040 with extraneous material, I respect this position. However, the deductibility of interest is already a major item (federal tax expenditure, if you will) on the personal income tax; the deduction of student loan interest could soon become extensive. With other forms of college tax credits knocking at the door of the 1040 Form, and with the entire tax code increasingly designed to serve public ends other than filling the coffers of the Treasury, I feel no shame in proposing a tie between student loan accounts and the personal income tax. More important, federally sponsored student

borrowing is in many respects already a close cousin to taxes: loans and repayments are in this country a virtual alternative to larger outright federal grants, and are in part an effort to target a portion of the costs of higher education upon the student recipient rather than having all borne by the general taxpayer.

There are alternative and additional forms this linkage could take. Provision could be made, for example, for the payment of past amounts due by an additional payment to the IRS or by a deduction from the rebate owed the taxpayer. And a ceiling on total annual payments that are not to exceed a certain percentage of adjusted gross income, as explained more fully below, would add a measure of protection against unmanageable debt--again through the device of the personal income tax. But the most important payoff to this linkage should be the regular, enforceable contact with borrowers and a consequent great reduction in delinquency and default.[5]

8. Repayments in excess of a certain maximum percent of income (e.g., 6 percent of adjusted gross) would be deferred without penalty. Borrowers who had paid the maximum percent of income through the originally scheduled repayment period would be subject to an extension period (e.g., 3 years) after which any debts--remaining after continuous payment of (6) percent of income--would be forgiven.

I have written elsewhere in support of the concept of income contingency applicable only to borrowers whose incomes prove insufficient to manage their educational debt load with costs supported by the government as post hoc aid rather than by high earning individuals who happen to have been former borrowers.[6] With extended repayment periods and careful attention to aggregate debt limits, the protection of this income contingency should not have to be extended to many. But it would provide some assurance to some borrowers that there would be relief, short of personal bankruptcy, from debts that become unmanageable due to lower than anticipated earnings.

Conclusion: The Practical Radical Solution

A National Student Loan Bank has the sound of a major new agency, of a frightful conflict with existing offices and agencies, and of a radically new approach to student loans that substitute schools for banks. These--and

5. Burney and Dresch suggest either the Internal Revenue Service or the Social Security Administration to keep track of student borrowers. Burney and Dresch, op.cit., pp. 45-47.

6. D. Bruce Johnston and Kurt L. Kendis, "More Manageable Student Loans," Philadelphia: University of Pennsylvania, 1977. See also D. Bruce Johnstone, New Patterns for College Lending: Income Contingent Loans. New York: Columbia University Press, 1972.

other--images of the radical alternative are only partly true. There is a very different perspective on essentially the same package. This is the perspective that reminds us that virtually all colleges are already originators of loans, and that my proposal is a step toward fiscal conservatism by taking the colleges out of the serving business altogether. We must remember that Executive Branches for years have tried to rid us of N.D.S.L.; my plan guarantees an almost total replacement by institutionally originated guaranteed loans. We should also recognize that Sallie Mae is a virtual National Student Loan Bank already--with only a few minor modifications such as advance purchase commitments and a more extensive set of college and university customers (read "agents"). And the linkages to the Internal Revenue Services are nothing more than a special treatment for the payment of this special interest expense--which is deductible anyway. The other changes are almost technical in nature.

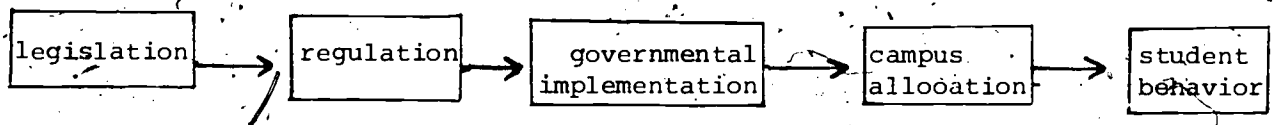
Of course it isn't all that easy either. But a vastly more simple and effective system of federally sponsored student loans is not far off if we only approach the topic with the proper mix of radical practicality.

Solving the Student Loan Problem By Supplementing Government Loan Policy-- An Expanded Role for Institutional Aid Administrators in the 1980s

Kurt L. Kendis

Introduction

The focus of governmental policy on student finance appears to drift from the component most essential in any formulation--the student. Legislation and regulation concentrates on those mechanisms necessary to accumulate capital, oversee procedures for guarantee claims, and tally, ex poste, the results. Students are the residual in the procedural scheme:



And the behavior of students is not surprising. The actual loan default and delinquency on the part of students is probably beyond imagination--particularly if the formulation includes those families who assume the payments their son or daughter ignores--either intentionally or reluctantly.

Those students with a positive response to their fiscal responsibility may opt for either an early entry into an earning stream when an optimum career path should include additional training, or embark upon a philosophy of income maximization--clearly leading to choices not necessarily in the best interests of the "social good" of the country.

Finanical aid and loan officers have been long wielding much greater influence on the destiny of their institutions than their position in organizational hierarchy would suggest. The procurement of funding in the campus-based program, the optimum allocation of all aid funds (without over-commitment) to students who may or may not choose to matriculate, the counseling of students taking loans, and the collection of loans--often without aid of a competent service bureau, are expanding faster than universities recognize the role of the aid/loan decision maker. Any discussion of federal policy must focus on the future importance of management skills in these areas. This paper presents tools to supplement the federal programs, in full recognition that the implementation of both innovative programs and lending plans sensitive to student needs requires aid and loan personnel with vision and managerial expertise.

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The Problem.

Student loans are not consumer loans. The rules for analysis of assets, incomes, borrowing limits, and collection procedures are seemingly diametrically opposed to methodologies long since proven successful in consumer credit, as well they should be. Students are borrowing as a part of investments in their own human capital; lenders loan to assure access and choice; the government guarantees loans to assure capital availability on the part of all three participants (student, lenders, and guarantors) increments dynamically each year with drastic negative attitudinal implications.

The attitude of whom? In the first instance, certainly students. These borrowers face a decision process (attending their next year of school) with a price elasticity of zero--as costs increase, they are seldom deterred from attendance if they can borrow funds. The lenders (usually colleges and universities or financial institutions acting in what they feel is the best interest of their college or student clients) continue to lend greater volumes of funds leading to a greater median debt loan with ever-increasing misgivings (yet with a government guarantee in their pocket). The attitude most prevalent among legislators (also growing incrementally) is avoidance of a most complex issue--merely increasing the parameters of existing programs and shutting their eyes to the long-range costs, the social consequences, or the behavioral impact of these programs.

A lack of sensitivity to issues of student loans is the problem. The counseling of students is complex, so loans are neatly tied in a bundle at an exit interview. The analysis of repayment data requires uniform methodology and sophisticated organization consolidation, certainly not an easy task when offices are understaffed and often not computerized. Implementation of graduated and extended repayments demand research data which does not exist and technical expertise which has been slow to develop. Yet despite the above-mentioned difficulties, the attitudes seem to remain the basic barriers. The Zacharias work in the late sixties and the subsequent failure of sample income contingent loan programs (failed due to a false start and not an inherent risk, as some would argue) preclude the current obviously burdensome debt loads. Yet income contingency fails to gain acceptance since the negative earlier reactions provide an attitudinal barrier. Students are continuing to default or at least prolong delinquency subsequent to the development of attitudes while they are in school. A loan is a loan and an award is an award, yet there is little surprise at the fact that ex-students are slow to repay their "awards."

Certainly integral to the lack of sensitivity to student loan issues is the role of loan officers in an institution. This writer contends that the financial aid/loan officer can determine much of the impact of future finances, enrollment and alumni contributions for his or her institution. Until the day when enlightenment strikes legislators and we find a large and consolidated central student loan mechanism (not unlike the Johnstone model) the burden will remain with the aid administrators to solve many of the problems which carry the weight of historical precedent. This paper is an attempt to present some technical solutions definitely within the aegis of the aid officer.

Organizational Requirements

Despite publication in the Federal Register of details of a central record-keeping regulation for financial aid, few schools had the foresight to prepare their internal organization to deal with the details of student

finances in 1978. Awards of financial aid; bills for tuition, fees, and services; disbursement and collection of federal, state, and institutional loans; term and summer employment placement; counseling on advisability of further training; and eventual solicitation of alumni contributions all have a common theme--the systematic contact between institution and the student concerning financial matters. Yet the growth of the programs these services or contacts represent often proliferates staff and activities in an area demanding consolidation. In the worst of all possible scenarios, admission and financial aid are separate, graduate admissions and aid are separated by each division, FISL loans are administered separately, and a student receives bills for services from each office (library, dining, residence) responsible for the service. A student facing diverse offices and bills and loans--particularly since most are neophytes in matters of personal finances--is numbed into an irresponsible attitude towards these finances. In effect, the decentralized organization is creating bad debtors long before the repayment periods begin.

The central record-keeping solution is merely a partial remedy, for as debt levels rise the counseling of a student becomes increasingly important. Why should already overloaded staff invest scarce manhours in student financial counseling? Student loans are not commercial credit and universities are not consumer discount loan companies. The long-range good will of the student as an eventual alumni contributor or alumni supporter, as well as as an individual responsibly repaying his loan on time dictates the need for this counseling.

Student-institution relationship are not enough in the climate of rapidly growing loan portfolios. The marketing of a university is not merely admissions, and the cost is not merely gross tuition and fees. The cash flow problems facing all institutions can be exacerbated by poor planning and improper secondary marketing of loans. Thus the aid/loan officer carries a major input in the future financial planning of a university. Many of the technical tools presented below can be useful only if there are aid officers influential enough to utilize them.

Again it is important to note that this writer anticipates no immediate governmental guiding hand, and by promoting the role of the centrally organized aid/loan officer an opportunity to supplement government policy. The optimum aid/loan officer (call it the bursar or comptroller or vice provost for student finances) thus centralizes contact with and counseling for students, creates inputs to financial planning, helps the marketing or good will of the institution, and establishes a relationship conducive to promoting alumni development after graduation.

Analytic Data Requirements

Problems of accurately reported defaults and delinquencies are but the first data difficulty in student loan management. The aid/loan office must make an effort to analyze all of the students' obligations for purposes of counseling. Included would be those debt or work obligations external to the university as well as intra-family loans.

The analysis of defaults and bankruptcies to guide policy decisions at the university level is long overdue. Recent work at Stanford and Cornell, for example, reinforced the fear that students who do not complete four years, if not given special collection treatment, are high risks for default. Early modification in procedure will hopefully help reduce systematic defaults of this nature.

Reporting of aggregate data and sharing of borrowing repayment and collection experience with other institutions will help these centrally organized offices cope with the volume and complexity of future operations. Certainly, a consolidation effort to good management practices will include the creation of responsible service bureaus to bill the student. Only through impetus from the universities themselves can current service bureaus become both efficient and sensitive to the students' and institutions' needs.

Existing Solutions to the Capital Availability Problem--Parent Loans

Most observers of the main issues of student finance in higher education rightfully express concern over the need for additional loan capital. As this writer has stated above, the main problem is sensitivity, for capital access has been solved, in the short run, by the federal government (see Appendix III) and by commercial credit loans, also known as Parent Loans, Educational Loans, or Insurance Loans. These commercial loan plans are external to the institutions, and are not new.[1] Only the added marketing of these plans is a recent phenomenon.

These commercial loan plans are selective, require collateral, often do not involve the student, and may have no physical contact with the institutions who permit them to utilize their students as a captive market. A recent conservative tally indicated in excess of $200 million loaned annually in commercial loan plans using educational titles as a marketing technique. A university, through its aid/loan officer, should carefully investigate the entire spectrum of programs available and offer families of students the best set of alternatives.

Since defaults are historically low on these programs and profitability relatively high (including the life insurance premium add-on), institutions should have no qualms about using the right to mail to their students as an incentive for "competitive" programs to offer the most appealing package. A possibility that persists is extended repayments, as opposed to the rapid amortization now in practice. A most compelling idea is to ask the commercial lender to gather data on the families to whom he lends--thus building analytic possiblities for future decisions. (more on this below)

Using an Institution's Line of Credit for Parent Loans

Financial officers in a university are well aware that educational loans are often good investments. Retention of FISL portfolios while their anticipated return is higher than the institution's own internal rate of return is already a common practice. But the use of loans as a marketing technique has received (justly) major criticism when the loans are government student loans. Hidden in this outcry is the opportunity for a university to offer a creative Parent Loan Program to families of its students. Capital access is possible through the guarantee of the university's trustees. The tailoring of the program should meet the needs of and correspond to the marketing techniques of the institutions. The examples presented in Appendix IV illustrate a) standard loans; b) a loan where the monthly repayment is fixed and the terms increase as borrowing grows; and c) a plan where the family can choose in advance the scheme they prefer.

1. This material is extracted from "A Planning Package for Parent Loan Programs" K.L. Kendis, Higher Education Finance Research Institute, Office of the President, University of Pennsylvania, Philadelphia, 19104, January 1, 1977.

Most important is the university's anticipation of demand and cash flow consequences (see Appendix V), which involve substantial capital to operate a complete program. The management of a parent loan portfolio is a treasury function, although the program itself could be considered aid or within the scope of admissions recruitment.

The Two-Paper Concept in Student Lending

No signs, no hints, and no forecasts for the near future indicate policy changes in the government loan program which would meet "sensitivity" criteria involving income contingency or graduated repayments. One major impediment has been the extraordinary complexity of the concept of income contingent repayments. Without changing existing loan program policy, current loan procedures may be supplemented with sensitive program alternatives in the form of an additional loan note.

A two-paper or "hybrid"[2] plan involves two contracts. The first contract is a standard straight-line loan repayment (and could certainly be a federal student loan). The second contract, also signed at the inception of the loan, is really an income contingent "side agreement." The purpose of the "side agreement" is to make the student's obligations income contingent, no matter how large and burdensome the primary obligation. Under such a plan, most borrowers would repay according to a standard (possibly graduated) schedule. Borrowers at or below a certain income level would pay only the maximum percent of income. If their incomes increased after a few years, they would "catch up" with their primary repayment schedule and move back to conventional fixed payments. However, if their incomes remained low enough to keep them from paying the maximum percent-of-income throughout the repayment years, they would assume a second debt composed of the deferred payments and accrued interest.. The second debt--the amount "refinanced" by the second contract--would remain at the end of the originally scheduled repayment period. At that time, the borrower would continue to repay at a percentage of his or her income until the second obligation is satisfied. In effect, the second note repays the first and makes the burden less on the student.

Use of the Two-Paper Concept

Any supplemental loan program, or "side agreement" is a particularly vexing problem for the banking community on its efforts to simplify procedures. But combined with the previously elaborated counseling programs and efforts to emphasize alumni contributions, the difficulties of administrating a two contract program may be well worth the complexities. Foremost is a minimization of the "burden" of higher student debt loans--hence defaults and delinquencies--since low earners will be able to meet their obligations.

The equitable nature of a program which is sensitive to effects on students can only benefit the sponsoring institution. Whatever negative attitudes students may have toward loan repayment can be ameliorated with a university endeavoring to help ease the burdens of student debt.

2. A complete exposition of the hybrid or two-paper concept can be found in "More Manageable Student Loans," D.B. Johnstone and K.L. Kendis, Higher Education Financial Research Institute, Office of the President, University of Pennsylvania, Philadelphia, 19104, 1977.

A conceivable linkage between the loan office and a student placement service is possible if one considers employers purchasing the loan paper of their young employees. Certainly, universities or other employers could consider the establishment of the second note loan program as an employee benefit program to replace or supplement current full or partial tuition benefits, which get costlier each year. These utilizations of the two-paper concept imply a capitalization of the second note from external sources. If such a program were to expand to its full potential, capital availability becomes an important consideration. Again, a university's alumni relations can play an essential role--either with appeals for special contributions to support such a program, or constant appeals to former students to repay the second notes as soon as they are able.

An additional application of the two-paper principle would involve the participation of secondary guarantee of the parents. But beyond parents sponsoring the second note, there are more interesting feasible involvement of parents and families.

The Concept of the Family Loan for College Costs

The subject of student loan disintermediation has always occupied a portion of the literature--yet the arguments always question disintermediation and the disbursement. Imaginary horribles of parents buying yachts with the proceeds of a guaranteed student loan presented quite the opposite scenario from early data this writer has gathered. The repayment of the loans is the disintermediation behavior frequently noted. FISL loan portfolios with as many as 75% of the early note repayments being assumed by the parents are very much involved in student loans--but not in the negative context of earlier concerns.

If parents and families, of their own volition, intend to assume or share some of the loan burden, why not optimize their participation? Ideally, parents have three elements to offer a program of student finance-counsel, guarantee, or cash payment. By far the most important is the guarantee--where the parents cosign the student loan note. This would make capitalization of a loan program attractive to commercial lenders. But total participation of the family in student lending--commensurate with their ability--can potentially solve the need for sensitivity.

The model plan illustrated on the next page has the following features:

1. Pre-loan counseling is with participation of students and parents.

2. The loan note itself contains signatures of both parents and students.

3. At their option, the parents agree to pay the interest on the outstanding loan balance while the student is in school and then a declining share of the payments in the early years of the loan.

4. The student will, in effect, experience graduated repayments--eventually assuming entire repayment.

This family educational loan plan is an attempt to institutionalize the parents' commitment to their children's education cost. If the family cannot assume greater payments during school years (since they may already have a substantial parental contribution), then the commitment of their financial guarantee provides the opportunity to lessen repayment burdens on the student during the early years when default experience is greatest.

A Federal Role in Loan Innovation?

These secondary student loan instruments are an attempt to anticipate "side agreements" in the face of federal policy which concentrates on the capital availability needs of student loan program. Although favoring a centralized student loan bank (like the Johnstone model), this writer anticipates that only a capital availability crisis would force legislators to recognize the need for a National Student Loan Bank. If recent history is any indication of the future, incremental growth of existing mechanisms will continue without coordinated attention to those issues which this writer labels "sensitivity considerations." In other papers,[3] some consequences of loan insensitivity are further elaborated -- disincentive to enter public service, income maximization behavior, career paths forsaking pro-bono work, or incentive toward default and delinquency--but by facing the inevitability of side agreements, institutions and students and their families alike can plan for the future.

There remains a possible significant and appropriate federal participation in student loan "sensitivity." First and foremost is an analysis of sources and uses of family funds used to pay higher education cost. Only a comprehensive and definitive national study can provide the data needed for policy analysis of student loan plans.

Beyond research, and before the National Student Loan Bank, the most compelling role of the federal government falls not in the field of student loans (where the argument is presented that the legislation will continue to provide capital access) but in manpower allocation. The H.E.A.L. loan program, for example, is part of health manpower legislation--designed not necessarily to help students, but encourage participation in the National Public Health Service Corps.

Looking at the side agreement (or secondary loan) phenomenon, what better way to encourage manpower allocation than to act, on margin, with secondary debt instruments. For example:

1. A branch of government (federal, state, or local) wishing to encourage public service work in its own area can forward contract for the side agreements of young students--relieving the student of burdensome (but not all) payment levels and guaranteeing his needed services in the public interest.

3. "A Rational Guide to Graduate and Professional Student Financial Assistance" K.L. Kendis in Student Loan Marketing Association, Development in the Financing of Graduate Education, 1977.

2. Legislated limits on income tax deductions (federal, state, or local) for interest in student loans can vary with the individual's commitment to public service work.

3. Purchasing of the student's entire loan portfolio could certainly motivate public service.

In all of the above examples, the cost would be borne by the agency supporting the work. In this way a manpower allocation law will not be confused with student aid.

A federal role in streamlining administrative procedures seems probable. How much of collection difficulties stem from problems as banal as student mobility? But the efforts of S.L.M.A. could continue in this area.

In the final analysis, this writer favors eventual consolidation of student loan programs into a National Student Loan Bank. The sooner those in government student aid act to promote consolidation and loan sensitivity, the sooner student loans will avoid the clutches of political pressure, manpower allocation issues, or consumer interests.

Summary and Conclusions

1. In the face of incremental expansion of already existing programs and continued stagnation of attempts to make loan programs sensitive to students' ability to pay, the aid/loan administrators in colleges and universities must act on their own to develop innovative and sensitive student loan mechanisms which utilize the large capital access offered by federal programs while preserving the interests of their students and the long-range goals of their institutions.

2. A precursor to student loan innovation is central organization of student financing activity. The decision making of a university with respect to student loans affect enrollments, incomes, finances, and possibly alumni contributions--and the officer responsible for loan policy should have recognition commensurate with his or her influences.

3. Parent loans are a popular capital access tool which may help relieve the student loan "burden," while promoting the good will of the institution and recognizing the role of the family.

4. Side agreements appear as an inevitable consequence of high student debt loads. The two-paper or "hybrid" loan is an example of an anticipatory side agreement which "sensitizes" a student loan program.

5. A family loan plan may best combine the advant ges of family participation with the inevitably of side agreements, although capital requirements are large.

6. There are many possible government roles in student loans beyond current programs. Best would be a consolidation of programs combined with extensive research into family financing patterns, but other interim participation is possible. Particular attention must be given to the separation of student aid issues and problems of manpower allocation.

APPENDIX I

How the University of the Future Handles Student Finances-A Case Study

The student first had contact with the university before he was born. His father, as a young alumnus and with the help and counsel from the university's fiscal services office, established a charitable remainder trust with the university as beneficiary and the interest accruing and compounding for the student's use on educational costs. The contributions to the trust were small each month, but tax deductible in the year they were given, and the interest was taxable as the student's income at the student's tax rate. When educational expenditures are no longer required, the trust is given to the university. Not eligible for grants or subsidized loans, the family participates in the "family loan plan" to pay the rest of the educational costs. The parents sign the note along with the student, and pay the interest on the outstanding balance during school and a portion of the interest as the student begins repayments which increase each year until the student's payment pays all interest and amortizes the principle. Both parents and student continue to contribute the same monthly amount even after their obligation under the loan are fulfilled--but now as a tax deductible contribution.

The student's roommate is eligible for aid and subsidized loans, and the borrowing required to pay graduate and undergraduate expenses is substantial. Each year, when this student incurs more federally sponsored debt, he is counseled as to his obligations and income in the future. His family helps, and together they sign a second note long before the student graduates. This note is used in the early years following graduation, when the student can only partially meet his obligations under the government loans. This second note keeps the government loan current until the student's income is adequate to pay both the government loan and the second "family" loan. Again, the student is counseled annually, and encouraged to translate his financial relationship with the university into alumni contributions.

A SAMPLE FAMILY LOAN

-A Plan Recognizing the Phenomenon of Intra-Family Disintermediation of Educational Loans

term=10 years from graduation interest=10%

		Parent Obligation		Student Obligation		
	Borrowing	Interest Repayment	Principle Repayment	Interest Repayments	Principle Repayments	Total Repayment
1979	$ 2,500	$ 250	--	--		
1980	2,500	500	--	--		
1981	2,500	750	--	--		
1982	2,500	1,000	--	--		
1983		628	--	$ 0	$ 1,000	$ 1,628
1984		500	--	128	1,000	1,628
1985		250	--	378	1,000	1,628
1986			--	628	1,000	1,628
1987			--	628	1,000	1,628
1988			--	628	1,000	1,628
1989			--	628	1,000	1,628
1990			--	628	1,000	1,628
1991			--	628	1,000	1,628
1992			--	628	1,000	1,628
	$10,000	$4,878		$4,902	$10,000	$16,275

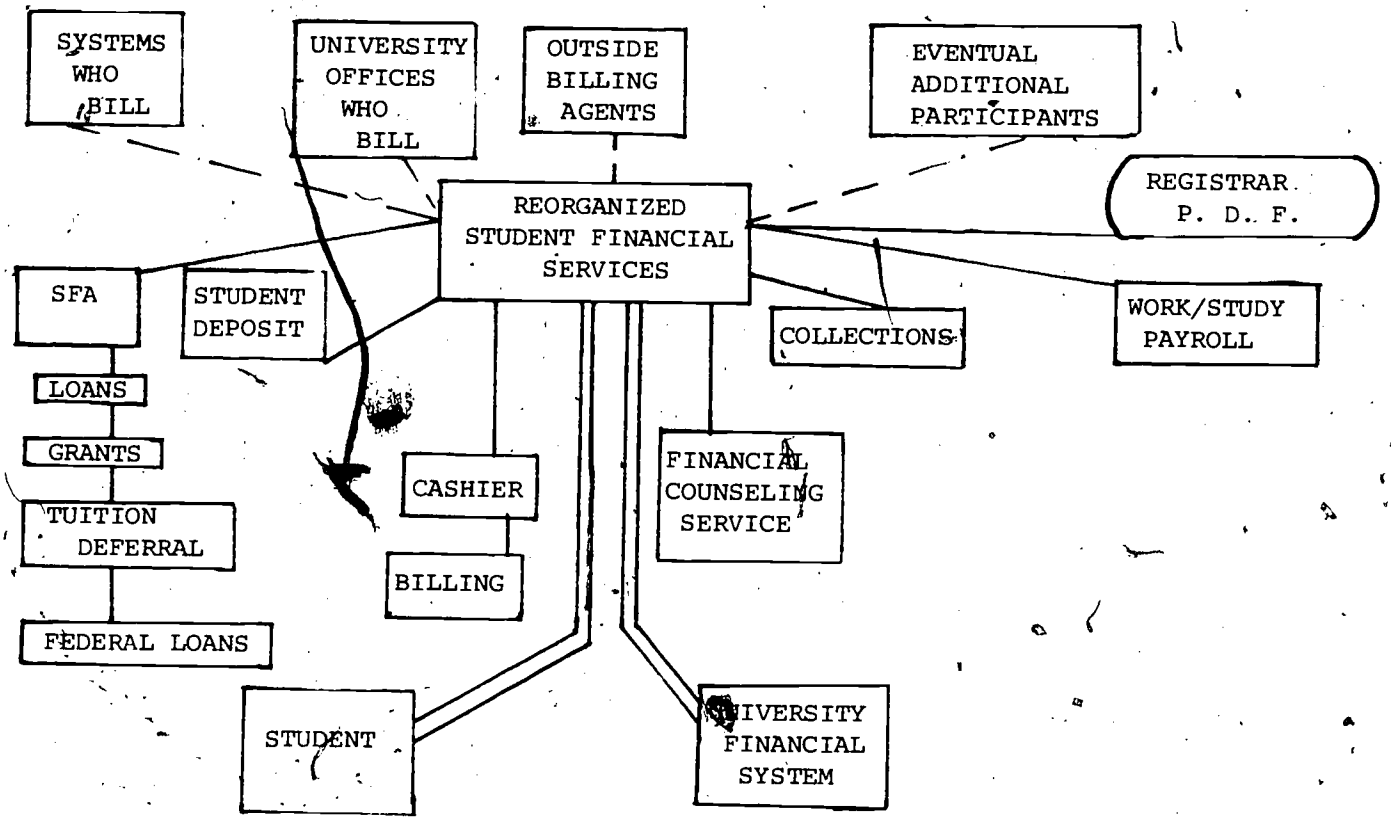
The loan is guaranteed either through the assets of the family or the guarantee of the university, for which an interest premium may be extracted.

Interest payments are tax deductible in the year they are paid by whom they are paid.

Both family and student are encouraged to continue their annual payments as tax deductible charitable contributions.

APPENDIX II --- AN OPTIMUM

Central Aid/Loan Organization



DESCRIPTION OF CENTRALIZED STUDENT FINANCIAL SERVICES

- All student financial functions centralize their records
- Financial counseling keys each student into financial service
- New file communicates with Registrar
- All segments with student financial services interact
- All financial transactions and communications flow through system

FULL-LIMIT AGGREGATE LOANS FOR A SINGLE HEALTH PROFESSIONS STUDENT

Year	NDSL Borrowing	FISL Borrowing	HEAL Borrowing	HEAL Repayment	FISL Repayment	NDSL Repayment	Total Repayment
1974-5	$1,250	$1,250					
1975-6	1,250	1,250					
1976-7	1,250	1,250					
1977-8	1,250	1,250					
1978-9	2,500	5,000	$10,000	$ 375			$ 375
1979-80	2,500	5,000	10,000	312			312
1980-81			10,000	250			250
1981-82			10,000	187			187
1982-83			10,000	78			78
1983-84				6,381	$2,415	$1,172	9,968
1985				6,381	2,415	1,172	9,960
1986				6,381	2,415	1,172	9,960
1987				6,381	2,415	1,172	9,960
1988				8,390	2,415	1,172	11,977
1989				8,390	2,415	1,172	11,977
1990				8,390	2,415	1,172	11,977
1991				8,390	2,415	1,172	11,977
1992				8,390	2,415	1,172	11,977
1993				8,390	2,415	1,172	11,977
1994				8,390			8,390
1995				8,390			8,390
1996				8,390			8,390
1997				8,390			8,390
1998				8,390			8,390
	$10,000	$15,000	$50,000	$146,117	$24,150	$11,723	$181,990

Assumptions

Five year medical school program.
No grace periods.
FISL = 9.75%, NDSL = 3%, HEAL = 10%
Resident opts to pay interest rather than let it compound and accrue.

Thus, this writer would like to emphasize that there is not a crisis in student finance of higher education. Capital availability problems have been solved by legislation and regulation, as the table plainly illustrates.

Of course, state or institutional loans are not included; nor any borrowing the person needs to begin practice or buy a home.

Extracted from "A Short Essay On The Non-Crisis In Student Finances," Kurt L. Kendis, April 1, 1978.

Model Parent Loans

a) A standard loan

STUDENT LOAN TABLE -- MONTHLY PAYMENT NEEDED TO RETIRE A LOAN OF $1,000 - $6,000 IN 1 - 6 YEARS

AMOUNT BORROWED	NUMBER OF YEARS TO REPAY			
	1	2	3	4
1000	85.20	45.34	31.06	24.70
2000	170.40	90.67	62.13	49.40
3000	255.60	136.03	93.19	74.10
4000	340.80	181.37	124.25	98.80
5000	426.00	226.72	155.32	123.50
6000	511.20	272.07	186.38	148.20

NOTES: 1. ANNUAL INTEREST RATE = 9 PERCENT.
2. MONTHLY PAYMENTS BEGIN AT START OF FIRST MONTH.

b) Fixed monthly payment

TOTAL AMOUNT BORROWED	MONTHLY PAYMENT = 150		200		250		300		350	
	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS
20000	*1	*1	221	44021	139	34625	104	30902	83	28351

NOTES: --THE FINAL PAYMENT WILL BE A SMALLER AMOUNT EQUAL TO THE BALANCE OF THE PRINCIPLE AND INTEREST.
--'0' INDICATES THAT MONTHLY PAYMENT IS TOO LARGE FOR THE LOAN AMOUNT.
--'*1' INDICATES THAT THE LOAN CAN NEVER BE PAID OFF WITH THIS PAYMENT (INTEREST > PAYMENT).
--THIS SERIES OF LOANS IS EQUIVALENT TO BORROWING 21542 AT THE BEGINNING OF THE FIRST YEAR.

c) Variable term and payment

PENNSYLVANIA PARENT LOAN PROGRAM

TOTAL AMOUNT BORROWED	SELECTED MONTHLY PAYMENT = 150		200		250		300		350	
	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS	NUMBER OF MONTHLY PAYMENTS	TOTAL OF PAYMENTS
500	4	500	3	504	3	575	2	503	2	502
1000	7	1007	6	1010	5	1015	4	1013	3	1019
1500	11	1507	8	1515	7	1524	6	1527	5	1533
2000	15	2017	11	2027	9	2040	7	2040	6	2049
2500	18	2527	14	2541	11	2556	9	2574	8	2586
3000	22	3036	16	3056	13	3080	11	3110	9	3092
3500	26	3547	19	3566	15	3596	13	3601	11	3627
4000	30	4058	22	4077	17	4112	15	4092	12	4167
4500	34	4568	25	4588	20	4634	16	4704	14	4714
5000	37	5019	28	5053	22	5071	18	5317	16	5266

THIS TABLE WAS CONSTRUCTED WITH THE FOLLOWING ASSUMPTIONS:
ANNUAL INTEREST RATE = 9% PERCENT
ADMINISTRATIVE COST PER LOAN = 0.0 DOLLARS
PAYMENTS BEGIN ON DATE 1

NOTES: --THE FINAL PAYMENT WILL BE A SMALLER AMOUNT EQUAL TO THE BALANCE OF THE PRINCIPLE AND INTEREST.
--'*1' INDICATES THAT THE LOAN CAN NEVER BE PAID OFF WITH THIS PAYMENT (INTEREST > PAYMENT)

APPENDIX V

Parent Loan Program
Cash Flow and Costs

	FISCAL YEAR 1		FISCAL YEAR 2		FISCAL YEAR 3		FISCAL YEAR 4		FISCAL YEAR 5		FISCAL YEAR 6	
	9/1 TO 12/31	1/1 TO 8/31	9/1 TO 12/31	1/1 TO 8/31	9/1 TO 12/31	1/1 TO 8/31	9/1 TO 12/31	1/1 TO 8/31	9/1 TO 12/31	1/1 TO 8/31	9/1 TO 12/31	1/1 TO 8/31
1. NO. NEW STUDENTS	150	0	200	0	250	0	300	0	350	0	400	0
2. TOTAL STUDENTS	150	150	350	350	600	600	900	900	1250	1250	1650	1650
3. AMOUNT LOANED OUT	285000	285000	704900	704900	1280704	1280704	2036637	2036637	2633577	2633577	3305417	3305417
4. AMOUNT OUTSTANDING (START OF PERIOD)	284634	302715	743179	1076023	1612126	2274747	3014678	4104802	4702043	6073630	6506047	8046131
5. REPAYMENTS -- PRINC	140740	271414	354633	693042	671228	1210844	951651	1847719	1336604	2653161	1656047	3653656
6. REPAYMENTS -- INT.	4726	15513	15731	47605	36226	104665	71665	195913	118737	295622	165103	390444
----------------------												
7. DEFAULTS	333	400	927	1370	2015	2846	3765	5431	5973	7292	8234	10553
8. TOT. ADMIN. COST	1803	607	2720	1441	3713	2516	4923	3847	6225	5451	7673	7346
9. INITIAL PROC. COST	1500	0	2000	0	2500	0	3000	0	3500	0	4000	0
10. SERVICE COST	150	300	350	700	600	1200	900	1800	1250	2500	1650	3300
11. AGGREGATE COST	153	307	370	741	613	1316	1023	2047	1475	2951	2023	4048
12. COST OF CAPITAL	3933	12932	13110	39739	30437	87221	59720	164073	93907	246352	130419	325370

TOTAL COST OF PROGRAM (12+8+7+5)	1224	-1479	1027	-3137	-315	-12063	-3256	-23841	-7595	-34302	-11777	-47670
ACCUMULATED SURPLUS	-1224	175	-852	4285	4600	46600	19937	43780	51374	87602	99377	147049

1. NUMBER OF STUDENTS ENTERING PROGRAM DURING THE PERIOD (ALL STUDENTS ENTER IN THE FALL OF FRESHMAN YEAR).
2. TOTAL NUMBER OF STUDENTS IN THE PROGRAM DURING THE PERIOD. STUDENTS TAKE OUT LOANS FOR EACH OF FOUR YEARS AND MAKE PAYMENTS FOR 72 MONTHS.
3. TOTAL AMOUNT LOANED OUT (ALL AT THE START OF THE PERIOD). BASED ON AN AVERAGE LOAN OF 1900 DOLLARS PER STUDENT FOR THE FIRST YEAR, AND A 6 PERCENT ANNUAL GROWTH IN THIS AMOUNT.
4. TOTAL AMOUNT OUTSTANDING AT START OF PERIOD (INCLUDES REPAYMENTS MADE AT THE START OF PERIOD).
5. PORTION OF REPAYMENTS THAT RETIRES PRINCIPLE. LOANS ARE REPAID IN 72 MONTHS AT AN ANNUAL INTEREST RATE OF 9 PERCENT.
6. PORTION OF REPAYMENTS THAT GOES TOWARD INTEREST.
7. DEFAULTED PRINCIPLE AND INTEREST (BASED ON A DEFAULT RATE OF 0.25 PERCENT OF THE OUTSTANDING PRINCIPLE PER YEAR.
8. EQUALS THE SUM OF LINES 9, 10, 11.
9. BASED ON AN INITIAL PROCESSING COST OF 10 DOLLARS PER LOAN.
10. BASED ON A SERVICING COST OF 0.25 DOLLARS PER LOAN PER MONTH (WHILE THE LOAN IS IN SERVICING IS DONE BY ARRANGEMENT WITH THE INSURANCE COMPANY).
11. BASED ON AN AGGREGATE COST OF 0.1 PERCENT OF MONTHLY REPAYMENTS.
12. BASED ON AN ANNUAL COST OF CAPITAL TO THE UNIVERSITY OF 7.5 PERCENT.
13. TOTAL COST OF THE PROGRAM FOR EACH PERIOD.
14. ACCUMULATED SURPLUS (DEFICIT) OF REPAYMENTS LESS EXPENSES.

Estimating Manageable Educational Loan Limits for Graduate and Professional Students*

Dwight H. Horch

Introduction

Educational loan programs have become a major instrument over the past two decades for financing postsecondary educational costs. In retrospect, the initial appropriation of $60 million in fiscal year 1959 for the National Direct Student Loan Program, the only federal loan program in its time, seems trifling in contrast to current borrowing levels, which approached $1.85 billion for the myriad of federal loan programs in fiscal year 1976.

Loan programs have evolved over the years in response to increasing costs at both the undergraduate and post-baccalaureate levels and to perceived societal needs and political pressures. The National Defense Student Loan Program (NDSL), for example, was created in the post-sputnik era to accelerate postsecondary training. The Guaranteed Student Loan (GSL) Program, on the other hand, was enacted to ease the financial burden of college costs on middle income families, as an alternative to tax credits.[1] Other loan programs on the financial aid landscape include the Nursing Loan Program, the V.A. Educational Loan Program, and the Health Education Assistance Loan (HEAL) Program for prospective physicians.

The importance of loans is underscored by the fact that some $1.3 billion were borrowed in 1976 by students through the Guaranteed and Federally Insured Loan Programs. On an individual basis it is reflected in average borrowings of students, which can only be expected to increase in the future. A recent survey of 70,000 postbaccalaureate students in the 1977-78 Graduate and Professional School Financial Aid Service population, revealed that almost one-half (47 percent) reported they had borrowed some amount during their undergraduate

[1] John F. Morse., "How We Got Here from There - A Personal Reminiscence of the Early Days" in Student Loans: Problems and Policy Alternatives. College Entrance Examination Board, New York, 1977, p. 13.

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* Paper adapted from: Estimating Manageable Educational Loan Limits for Graduate and Professional Students. 1978, Educational Testing Service. Reprinted by permission.

years. And for those unmarried students who had borrowed, the median cumulative educational debts were as follows:[2]

Year in Graduate/ Professional School	Median Cumulative Educational Debt
First	$ 2,684
Second	$ 3,709
Third	$ 5,458
Fourth	$ 7,899

While these debt loads are not particularly alarming, the level of indebtedness may be expected to increase in the future, for a variety of reasons. Hough notes, for example, that the demand for loans, especially by graduate and professional students, is likely to rise, despite projected future enrollment declines.[3]

Hough arrives at this seemingly contradictory conclusion through the following logic chain. As the flow of high school graduates begins to decline, enrollments in institutions of higher education may also be expected to decline. This will create an upward push on tuitions, to the extent that the volume of students declines and the fixed cost base for tenured salaries remains constant.

As costs escalate, pressures toward debt financing will mount at the graduate and professional level in the absence of government intervention in the form of uncategorical grant assistance to institutions or grant assistance to students.

There is a growing concern that increasing debt burdens will create increasingly serious repayment problems for students in the future, and may have unintended pervasive consequences -- such as income maximization behavior of borrowers -- that may conflict with broader social goals. For example, Congress recently enacted the Health Education Assistance Loan Program with a maximum aggregate loan limit of $50,000, an (unsubsidized) 10 to 12 percent interest rate, and a 15 year repayment period. While it can be argued that the income profiles of physicians permit absorption of this level of indebtedness, it can also be hypothesized that heavily indebted physicians may opt for practices in

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[2] D.H. Horch, "Need Analysis at the Graduate and Professional Level: Who Needs It"? Paper prepared for the Student Loan Marketing Association Symposium on Financing Graduate and Professional Education, June 1977, p. 53.

[3] Lawrence A. Hough, Introduction to Student Loan Marketing Association Symposium on Developments in Financing Graduate Education.

more lucrative nonshortage areas. Another possible consequence of high debt levels for physicians is a further upward push on their professional fees. Similar types of behavorial consequences of borrowing can be hypothesized for other professions, such as law or business.

The growing importance of loans as an instrument for financing graduate and professional study, and the concern over the repayment legacy they entail, suggests the need to develop a methodology for estimating loan limits that are not overly burdensome.

The balance of this paper is devoted to developing alternative definitions of manageable loan limits, and simulating loan limits for borrowers in selected professions. Because of the key role loans are likely to play in the years ahead at the postbaccalaureate level, this study is restricted to estimating manageable loan limits for graduate and professional students.

Manageable Educational Debts

The question of what constitutes a manageable education debt level has been a vexing one, and, as Johnstone points out "there is little on which to base an answer to the question."[4] There seems to be agreement, however, that the relevant measure of the "oppressiveness of a debt is the relation between future payments and future income. At some level, the ratio of annual repayments to annual income becomes burdensome."[5]

Perhaps the most definitive work in the area of tolerable educational debt levels was undertaken by Daniere in the 1960s.[6] Daniere examined consumer expenditure profiles and concluded that families spend about 90 percent of their after-tax income for consumption, leaving a residual of 10 percent. A priori, he concluded it would be unreasonable to expect borrowers to devote all of their residual income for educational debt repayment and suggested that 6 percent of before-tax income, or 7.5 percent of after-tax income, could be devoted to retiring educational debts, without being overly burdensome.

Daniere concluded that a tolerable educational loan would be defined as one entailing annual repayments equal to, or less than 7.5 percent of an individual's after-tax income.

Hartman, following a different reasoning, concluded that up to 15 percent of the typical college graduate's starting income, before taxes, would not be an

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[4]Bruce D. Johnstone, New Patterns for College Lending, Columbia University press, New York and London, 1972, p. 106.

[5]Robert W. Hartman, Credit for College, New York: McGraw Hill, 1971, p. 14.

[6]Andre Daniere, "The Benefits and Costs of Alternative Federal Programs of Financial Aid to College Students," in The Economics and Financing of Higher Education in the United States: A Compendium of Papers Submitted to the Joint Economic Committee (Washington, D.C.: U.S. Government Printing Office, 1969), pp. 576-578.

overly burdensome educational loan repayment, assuming equal annual installments.[7] He based his conclusion on the assumption that during the payback period students might be willing to accept a level of repayments equal to the increase in their earning power resulting from a college education.

Froompkin, in his study of student loans for women,[8] used three tests of repayment burdens to evaluate loan repayment plans:

1. What proportion of a single woman's annual earnings or of the family income of a married woman will be claimed by loans of varied amounts at different maturities?

2. What proportion women will be overburdened by the repayment of loans, where overburden is defined as 6 percent of an unattached single woman's income and 3 percent of the family income of a married woman?

3. What proportion of women are likely to pay for their loans from their own earnings?

Manageable repayment streams, it seems, can be defined in a number of different ways:

- A manageable annual repayment is one that does not exceed 6 percent of the individual's before-tax (or 7.5 percent after-tax) income during the life of the loan (Daniere).

- A manageable annual repayment is one that does not exceed 15 percent of the individual's before-tax starting income (Hartman).

Hartman's definition, which is tied to first-year, starting income, seems especially suited to equal annual repayment installments, because it prohibits educational loan repayments from exceeding a stipulated maximum percentage of income. Tying repayment to a percentage of first year income more or less ensures that the borrower can manage the educational loan installment during the first repayment year. And, in future years, the fixed annual repayment will decline over time as a proportion of income.

Alternatively, the manageable annual repayment may be defined as some fixed proportion of the individual's future annual income during each year of the amortization period. Thus, as the individual's income grows throughout the amortization period, the annual repayments will grow, but the percentage of income devoted to repayments will remain constant.

Another approach to defining what constitutes a manageable debt level is to review Bureau of Labor Statistics (BLS) budget data. Table 1 presents components of the three annual budget standards for an urban family of four in autumn 1976. There is no debt repayment component within the BLS budgets, since they

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[7] Hartman, op cit, p. 19.

[8] Joseph Froomkin, Study of the Advantages and Disadvantages of Loans to Women, Prepared for the Department of Health, Education, and Welfare, December 1974; Distributed by National Technical Information Service, U.S. Department of Commerce, p. 14.

represent budgets required to achieve these alternative living standards, regardless of income.

It should be noted that the BLS standards are benchmarks developed by economists, scientists and technicians from goods and services selected to represent a predefined, specified theoretical level of living. BLS points out that "while most families that do any budgeting at all base their budgets on current or expected income, any budget which is to be used as a benchmark for economic or social measurements must take the opposite approach. It must be built up from a list of goods and services representing a specified level of living. When the cost of these goods and services has been determined, it is then possible to ascertain the amount of income required to cover the budget."[9]

The BLS budget standards do not imply that individual families at specified levels actually allocate their incomes in a manner necessarily consistent with the components of the standards. Thus, to a lesser or greater extent, depending upon the budget component and the standard, families have some discretion in how they spend their incomes.

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[9] 3 Standards of Living for an Urban Family of Four, U.S. Department of Labor, Bureau of Labor Statistics, U.S. Department of Labor, Bulletin No. 1570-5, p. 1.

Table 1. Three Annual Budgets for an Urban Family of Four, Autumn 1976

Component	Lower	Intermediate	Higher
Food	$3003	$3859	$4856
Housing	1964	3843	5821
Transportation	767	1403	1824
Clothing	799	1141	1670
Personal Care	265	355	503
Medical Care	896	900	939
Other Consumption[1]	468	869	1434
Total Family Consumption	8162	12370	17048
Other Items[2]	451	731	1234
Adjusted Consumption	$8613	$13101	$18282

[1]Other consumption includes average costs for reading, recreation, tobacco, alcoholic beverages, education, and miscellaneous expenses.

[2]Other items includes allowances for gifts and contributions, life insurance and occupational expenses.

Source: Monthly Labor Review, July 1977, p. 35

A review of the BLS standards in Table 1 reveals two components that appear to be largely discretionary--"other consumption" and "other items." While these could be viewed as discretionary amounts which could be allocated entirely to annual educational debt amortization, such an assumption could conceivably require major budgeting dislocations on the part of the family. On the other hand, it can be argued that an amount approximating the other consumption component of the respective budgets could theoretically be devoted to educational loan repayments without creating an undue strain on the family budget. Thus, manageable annual educational loan repayment could be defined as an amount equivalent to the other consumption component of the respective BLS budget standards.

The data in Table 2 present housing and other consumption budget componets expressed as percentages of the three adjusted consumption budgets. At the BLS lower consumption budget standard, housing costs represent 22.8 percent of the standard and other consumption items represent 5.4 percent of the lower standard. These percentages increase progressively to the intermediate and

higher standards. Note the fact that the other consumption component represents between 5.4 and 7.8 percent of the respective budgets, a range that encompasses Daniere's 7.5 percent figure.

For purposes of this study, manageable debt repayment is defined as an amount equivalent to the other consumption component of the respective BLS budget standards. It should be pointed out that the total adjusted consumption budgets in Table 1 exclude federal, state, FICA and local taxes. As such, they represent income after taxes (effective income) needed to achieve each of the three budget standards.

Table 2. Housing and Other Consumption Expenses Expressed as Percentages of Adjusted Consumptions Budgets at Three Levels of Living, Autumn 1976

Component	Lower	Intermediate	Higher
Housing	22.8%	29.3%	31.8%
Other Consumption	5.4%	6.6%	7.8%
Housing plus Other Consumption	28.2%	35.9%	39.6%

If one accepts this definition, the question becomes, "Given a known annual income, how can the annual manageable educational loan repayment be estimated?"

Using the data in Table 1, it is possible to construct a progressive schedule that, at each of the three budget standards, yields expected annual repayments equal to the Other Consumption component. For example, The Other Consumption component (or manageable repayment) represents 5.4 percent of the lower budget standard ($8,610), or $465. At the moderate standard, it is $869 ($465 from the lower standard plus 9 percent of the difference between the amount of the lower and the intermediate standards.)

Table 3 presents a progressive schedule which was constructed to estimate manageable debt repayment from 1976 effective income (income after taxes). At double the BLS higher standard the manageable annual repayment was assumed to be three times the repayment at the higher standard.

Table 3. Formulas for Estimating Manageable Annual Educational Debt Repayment in Autumn 1976 Dollars.

Autumn 1976 effective income[1] (EI)	Manageable Annual Educational Debt Repayment
$ 0- 8,610	5.4% of EI
$ 8,611-13,100	$465 plus [illegible]% of EI in excess of $8610
$ 13,101-18,280	$869 plus 11.0% of EI in excess of $13,100
$ 18,281-over	$1,439 plus 15.7% of EI in excess of $18,280

1. Effective income = Adjusted gross income less allowance for U.S. income taxes, FICA taxes, and state and other taxes.

Effectively, the above formulas result in expecting the following proportions of after-tax income for educational debt repayment: 5.4 percent at the BLS lower standard, 6.6 percent at the BLS intermediate standard, 7.9 percent at the BLS higher standard, and 11.7 percent at twice the BLS higher standard.

Since educational loans are repaid from the student's future income, the ability to repay educational debts can be viewed as a function of the student's future income stream during the amortization period. To estimate aggregate manageable educational loan repayments for graduate and professional students, age-earnings profiles must be taken into consideration. The Bureau of the Census periodically estimates the mean income, lifetime income, and educational attainment of men in the United States. One of the groupings for which these data are available is for men with five years or more of college.

Mean incomes for this group, in 1972 dollars, are presented by age in Table 4. This table reveals that the mean income in 1972 dollars for 26 year old men with five years or more of college was $11,104. The data in the "ratio" column present mean incomes at each age expressed as a ratio of the income for the respective age group to the mean income at the base age of 26. Age 26 was chosen as the base for this group because it is the earliest age at which the majority of graduate/professional borrowers in four year educational programs would begin repaying their loans, assuming a grace period.

Table 4. Estimated Mean Income in 1972 Dollars at Present Age and Age-Earnings Ratios for Males with Five Years or More of Postsecondary Education

Age	Income	Ratio
26	11,104	1.00
27	11,854	1.07
28	12,577	1.13
29	13,273	1.20
30	13,941	1.26
31	14,581	1.31
32	15,194	1.37
33	15,779	1.42
34	16,337	1.47
35	16,868	1.52
36	17,371	1.56
37	17,846	1.61
38	18,295	1.65
39	18,715	1.69
40	19,108	1.72
41	19,474	1.75
42	19,812	1.78
43	20,123	1.81
44	20,406	1.84
45	20,661	1.86
46	20,890	1.88
47	21,090	1.90
48	21,264	1.92
49	21,409	1.93
50	21,528	1.94
51	21,618	1.95
52	21,682	1.95
53	21,718	1.96
54	52,726	1.96
55	21,707	1.95
56	21,660	1.95
57	21,586	1.94
58	21,485	1.93
59	21,356	1.92
60	21,199	1.91
61	21,015	1.89
62	20,804	1.87
63	20,565	1.85
64	20,298	1.83

Source: U.S. Bureau of the Census, Current Population Reports, Series P-60, No. 92.

The census data suggest that income wil grow (in 1972 dollars) as a function of age by 7 percent from age 26 to 27, by 13 percent form age 26 to age 28, and so on. The income of males with five years or more of college may be expected to grow by 52 percent between ages 26 to 35 (first 10 years), and by 86 percent by the twentieth year (age 45).

In measuring aggregate manageable debt repayments, which will be made from future incomes, the impact of inflation on income should not be ignored. Accordingly, the projection of furture income streams should account for both inflation and cross-sectional income growth.

The data in Table 4, therefore, need to be updated to reflect inflationary effects from 1972 to future repayment years. Students entering four-year degree programs in 1978-79 would not be expected to begin repayment of their loans until the beginning of 1983. For this reason, the 1972 census income data need to be updated through 1983 for inflation. Actual and projected Consumer Price Index (CPI) increases for the period 1972 to 1983 are presented in Table 5. Based on the actual increase in the CPI from 1972 through 1976, and projected increases through 1983, it is estimated that the CPI will increase by 103.9 percent for the period 1973 through 1983. Therefore, the average 1972 income of $11,104 for a 26-year-old male with five or more years of college, when updated for CPI increases to 1983, becomes $22,641. Further, the average 1972 before-tax income of $16,337 for a 34 year old would grow to $53,092 in 1991, assuming inflation of 103.9 percent from 1972 to 1983, and a 6 percent inflation rate thereafter. Long-range estimates of rises in the CPI are subject to considerable uncertainty. Therefore, for purposes of estimating manageable debt repayments from future income streams, it might be preferable to assume a lower rate of inflation. This would result in the yielding somewhat more conservative estimates of ability to repay from future income streams.

Table 5. Actual and Projected Rises in the Consumer Price Index (CPI): 1972 to 1983

Year	CPI	Percent Increase (1972=Base)
1972[1]	125.3	
1976[1]	170.5	
1977[2]	181.6	
1978	192.1	
1979	202.7	
1980	213.8	
1981	228.4	
1982	241.2	92.3%
1983	255.5	103.9%

[1]Source: Monthly Labor Review, August 1977

[2]Source: Data Resources Inc. Predictions of National Price and Wage Increases.

Table 6 presents estimated earnings profiles and manageable annual and cumulative educational debt repayments for 10 and 15 year amortization periods, assuming repayments begin in 1983. For this analysis, the census age-income ratios for males were assumed to be representative of earnings profiles for the universe of graduate and professional students.[10]

[10]To the extent that there may be significant differences in starting salaries and age-income ratios (growth profiles) among students in various disciplines and between men and women, one would expect manageable debt loads to vary among disciplines and occupations and between sexes. Moreover, to the extent there may be differences in cross sectional income growth rates among racial and ethnic groups, different manageable debt loads would be implied by the approach.

Note that manageable annual debt repayments were computed for each year using the "effective" or after-tax income formulas presented in Table 3, updated for inflation. Just as inflation of income neeeds to be accounted for, so too do inflationary impacts on the repayment formulas themselves. Formulas for each future year were, therefore, indexed for inflation.[11] Effective income was defined as adjusted annual income (i.e., adjusted for inflation and age growth) less the sum of estimated federal income taxes, FICA taxes and state and other taxes. The allowance for state and other taxes is 8 percent of adjusted income, the amount allowed by uniform methodology fianancial need analysis procedures, for famlies whose total income exceeds $10,000.

[11] See Appendix A, formula 3, which was used to index the annual repayment schedule.

Table 6. Estimated Earnings Profiles and Manageable Annual Educational Loan Repayments for Males with Five Years or More of College, Assuming 6 Percent Inflation After 1983

Loan Repayment Year[1]	Before Tax Income in 1972 Dollars[2]	After Tax Income in Current Dollars	Manageable Annual Loan Repayments	Cumulative Repayments
(1) 1983	$11,104	$16,127	$ 988	
(2) 1984	11,854	18,003	1,129	
(3) 1985	12,577	19,795	1,261	
(4) 1986	13,273	21,803	1,410	
(5) 1987	13,941	23,720	1,550	
(6) 1988	14,581	25,543	1,679	
(7) 1989	15,194	27,560	1,823	
(8) 1990	15,779	29,510	1,966	
(9) 1991	16,337	31,626	2,122	10 Year Amortization ($16,221)
(10) 1992	16,868	33,921	2,293	
(11) 1993	17,371	36,218	2,460	
(12) 1994	17,846	38,902	2,663	
(13) 1995	18,295	41,594	2,862	15 Year Amortization $30,575
(14) 1996	18,715	44,500	3,079	
(15) 1997	19,108	47,396	3,289	

[1]Assumes entry into a four-year graduate/professional program in 1978-79, exit age 25 in 1982, nine month grace period, and repayments beginning in 1983.

[2]Source: See Table 4.

[3]Assumes 103.9 percent rise in CPI from 1972 to 1983, and six percent annual increases thereafter in before-tax income. After-tax income equals income less allowances for federal taxes, state and other taxes, and FICA taxes.

The far right column of Table 6 presents the cumulative manageable repayments at the tenth and fifteenth years. The outcomes of this analysis suggest that, given a 10 year repayment period, aggregate repayments, graduated to income, of $16,221 would be manageable; given a 15-year amortization period, aggregate repayments of $30,575 would be manageable.[12] It is extremely important to note that these statements assume annual repayments are scaled to income and an inflation rate of 6 percent. Without such scaling, the student amortizing a loan in equal installments could be expected to repay more than a manageable amount during the first years of repayment.

The chart on the next page illustrates the ability of selected professional groups to make annual educational loan repayments over a 15 year amortization period. The chart demonstrates, on average, little difference in ability to repay educational loans of doctoral scientists and engineers, and males with 5 or more years of college. Moreover, the ability of lawyers and physicians to repay educational loans is not markedly different, if physicians are required to begin repayments during internship and residency. Not surprisingly, if physicians are permitted to begin repaying educational loans after the residency period they appear as a group, to theoretically have the ability to make the largest annual repayments.

Conversion of Cumulative Repayments from Future Income into Manageable Loan Principal Limits

In the preceding section, a methodology was presented for measuring manageable aggregate educational loan repayments as a function of future income profiles for a group that may approximate graduate and professional students as a whole.

Having presented this methodology, the question becomes, "What is the aggregate tolerable loan principal (as opposed to repayment), given manageable aggregate repayments?" Naturally, to answer this question, the repayment period and the interest rate must be stipulated, because repayments include both principal and interest.

Table 7 presents a general formula for computing total principal, given monthly repayments, interest rate, and number of months in the repayment period. Table 8 presents denominators for the formula for different repayment periods and interest rates. Table 9 converts the cumulative manageable repayments developed in Table 7 into total tolerable debt principal for a 7 percent interest-bearing loan repayable in 10 or 15 years.

[12] Formulas 1-4 of Appendix A were used to determine cumulative manageable repayments.

ESTIMATED MANAGEABLE GRADUATED EDUCATIONAL LOAN REPAYMENT

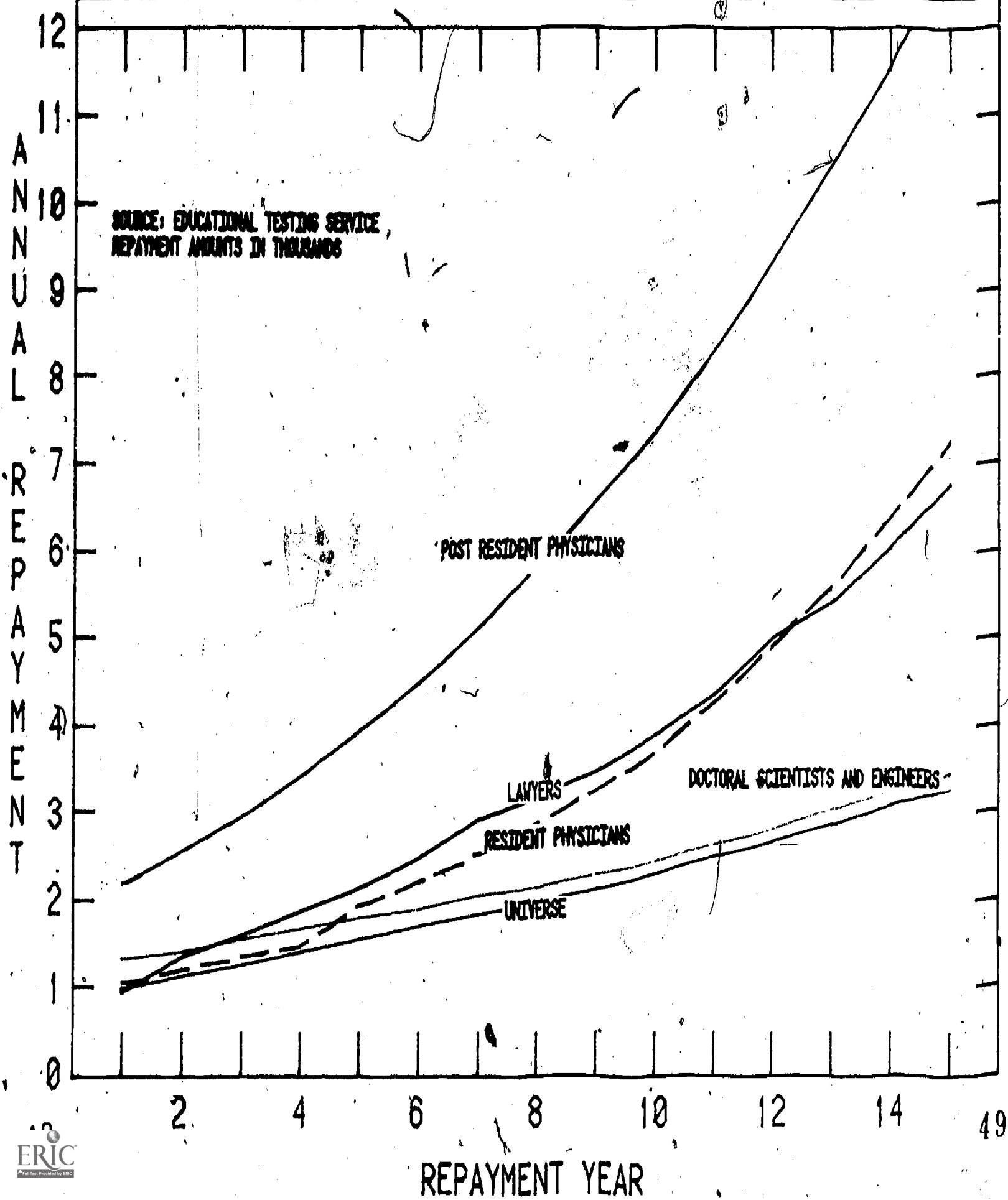

Table 7. Formula for Computing Total Principal Given Monthly Repayments (including Principal and Interest), Interest Rate, and Repayment Period.

$$P = \frac{CR/(12 \times y)}{\left[\frac{R \div 12}{(1 + R/12)^{NM} - 1} + \frac{R}{12}\right]}$$

Where:

P = Principal

CR = Cumulative repayment

Y = Number of years in amortization period

R = Interest rate

NM = Number of months in repayment period

Table 8. Formula Denominators by Amortization Period and Interest Rate.

Amortization Period in Years	Interest Rate		
	3 Percent	7 Percent	10 Percent
10	.0096575	.0116117	.0132152
15	.0069067	.0089889	.0107461
20	.0055467	.0077534	.0096503

The data in Table 9 suggest that repayments of $16,221 would be manageable over a 10 year amortization period for a loan bearing 7 percent interest converts into a loan principal of $11,641. Stated differently, the analysis suggests that an aggregate loan limit of $11,641 for the universe of graduate and professional students, may be a manageable loan ceiling for a 10 year amortization period, assuming repayments are scaled to future income. If the amortization period is extended to 15 years, it appears that a $18,896 loan principal ceiling would be tolerable.

The aggregate loan (principal) limit for the Guaranteed Student Loan Program (GSLP) was recently extended to $15,000 for graduate and professional students. This analysis suggests that the $15,000 limit is not unreasonable, provided the 10 year amortization period is extended to 15 years and repayments are graduated or scaled to income. Given a fixed repayment schedule and a ten year amortization period, one could argue that the total debt repayment should not exceed 10 times the manageable repayment during the first year of repayment. If the required equal monthly installment exceeds the manageable monthly repayment the first year, one might hypothesize that undesirable personal and social consequences, such as default, might result. Following this line of reasoning for the example in Table 6, a manageable aggregate GSL loan principal limit for males with 5 or more years of postsecondary training, given an equal monthly repayment schedule, would be about $7,100.

$$\frac{\$988 \times \frac{10 \text{ yrs.}}{120 \text{ months}}}{} + .011617 = \$7,090$$

The preceding example highlights the importance of permitting graduate and professional GSL Program borrowers the option of graduated repayments, and suggests that the amortization period should be extended to 15 years for those borrowing in excess of $7,100. Referring back to the manageable annual repayment column of Table 6, it appears that annual GSL repayments, if graduated to allow approximately a doubling of annual payments from the first to the tenth year of repayment or a tripling from the first to fifteenth year, would result in a manageable repayment stream for males with 5 or more years of postsecondary education.

Table 9. Conversion of manageable repayments into total manageable loan principal for alternative amortization periods, at 7% interest, for males with 5 or more years of postsecondary education.

(Assumes 6 percent inflation after 1983)

Item	10 Years (120 Months)	15 Years (180 Months)
Total Manageable Repayment	$16,221[1]	$30,575[1]
Average Monthly Repayment	$135.18	$169.86
Formula Denominator	.0116117[2]	.0089889[2]
Total Manageable Loan Principal	$11,641[3]	$18,896[3]

[1]Source: Table 6

[2]Source: Table 8

[3]Computed as follows: Montly repayments divided by formula denominator.

The preceeding example reveals that several variables impinge upon the assessment of manageable educational loan principal limits:

- Length of the amortization period
- Interest rate
- Shape of the age-income profile
- Assumed inflation rate in future years
- Equal installment or graduated repayment option (GRO) schedules
- Starting salary

In summary, the methodology suggested for estimating manageable educational loan principal limits for equal installment repayment plans is outlined below:

1. Mean starting income in constant dollars is updated for inflation to the year in which repayment will begin.

2. Effective starting income in current dollars is computed as the difference between current before-tax starting income less allowances for taxes (federal, FICA, state and other).

3. Repayment formulas (Table 3), indexed for inflation to the first repayment year, are applied to effective income to estimate the manageable repayment during the first repayment year of repayment.

4. Manageable annual repayment based on first year effective income is multiplied by the number of years in the repayment period, and is then converted into a manageable principal limit. Principal limits will vary depending upon the stipulated interest rate and length of the amortization period.

For graduated repayment option (GRO) plans, the six step method for estimating manageable loan principal limits is summarized as follows:

1. Mean starting income in constant dollars is updated for inflation to the year in which repayment will begin.

2. For successive repayment years, mean starting salary is adjusted for inflation and cross sectional growth rates.

3. Estimated effective income for each repayment year is calculated as the difference between before-tax income and federal, FICA, and state and other taxes.

4. The manageable annual repayment formula (see Appendix A, formula 3), indexed for inflation, is applied to effective income for each repayment year.

5. Annual repayments are summed across the amortization period to determine aggregate manageable repayments from future income.

6. Aggregate manageable repayments are converted to manageable principal limits based upon the stipulated interest rate and length of the amortization period.

Because starting incomes and cross sectional income growth rates vary among graduate and professional disciplines, there is no single answer to the manageable loan principal question. As will become more apparent in the next section, one set of loan program features (interest rate, amortization period, scaling of repayments to income) may yield educational loan principal limits that would be manageable for one discipline, but not another.

Manageable Educational Loan Principal Limits for Selected Professional Groups

To test the sensitivity of the methodology for estimating manageable educational loan principal limits, an interactive computer model was developed. The model allows the user to stipulate the following variables: starting income in current dollars, age-income growth ratios, inflation rate, interest rate, and number of years in the pay-back period. It then computes manageable educational debt loads using the formulas in Appendix A.

A series of simulations were run to estimate manageable educational loan principal limits for each of the following groups:

- Males with 5 or more years of college
- Law students
- Medical students, assuming repayment begins during internship
- Medical students, assuming repayment begins after residency
- Doctoral scientists and engineers.

The simulations drew upon income profile data that were readily available from previous studies by other researchers. In addition to simulations based on Bureau of the Census data for males with 5 or more years of college, the simulations for lawyers utilized income profile data published by the Massachusetts Bar Association, those for doctoral scientists and engineers drew upon data published by the National Academy of Sciences; and unpublished income data from the Institute for Demogrphic and Economic Studies were used to simulate manageable educational debt levels for physicians.[12] As a result, the simulated manageable educational loan limits are intended to illustrate the relationship between the hypothetical prospective average (mean) income of selected professional groups during the pay-back period and their theoretical ability to repay educational loans. Because available income profile data for the selected professional groups may not be wholly representative, the reader is urged to interpret the results of the simulations cautiously. Similarly, because the estimates of manageable debt levels are based on group mean incomes at selected ages, the reader is cautioned against inferring that the results are necessarily applicable to individuals.

The results of all of the simulations are highlighted in Tables 10 and 11. Table 10 presents estimated manageable cumulative repayments, including principal and interest, by type of repayment (fixed or graduated), for selected pay-back periods and professional groups. Inspection of Table 10 reveals that, for males with 5 or more years of college, total repayments of $9,900 would be theoretically manageable, given a 10 year amortization period and restricting cumulative repayments to 10 times the repayment that is manageable from the student's income during the first year of repayment. On the other hand, if annual repayments were scaled to income, the cumulative manageable repayment, given a 10 year amortization period would be between $14,700 (if the inflation rate were 3 percent annually) or $16,200 (if the inflation rate were 6 percent annually).

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[12] The age-income profiles and estimated starting incomes for each professional group may be found in Appendices B through E.

Table 10. Estimated Manageable Cumulative Repayments (Principal and Interest) by Amortization Period for Selected Professional Groups

Amortization Period	Males with 5 or more Years of College		Lawyers		Physicians (Repayments Beginning after Residency)		Pysicians (Repayments Beginning in Internship)		Doctoral Scientists and Engineers	
	Equal Repay-ments	Graduated Repay-ments	Equal Repay-ments	Graduated Repay-ments	Equal Repay-ments	Graduated Repay-ments	Equal Repay-ments	Graduated Repay-ments	Equal Repay-ments	Graduated Repay-ments
10 Years	$9.9	$14.7-16.2[1]	$8.9	$20.9-23.4	$22.0	$39.1-44.2	$10.4	$19.0-21.4	$12.9	$16.7-18.3
15 Years	$14.8	$25.8-30.6	$13.4	$41.7-50.8	$33.0	$77.5-96.7	$15.6	$40.4-49.6	$19.4	$28.3-33.4
20 Years	$19.8	$39.4-50.8	$17.9	$70.9-95.7	$44.0	$134.3-186.9	$20.8	$73.9-101.8	$25.8	$42.8-55.1

[1] Lower limit assumes 3 percent annual inflation rate; upper limit assumes 6 percent annual inflation rate.

The following findings emerge from the data in Table 10.

- Given equal monthly repayment schedules, physicians could repay more than any other group, assuming their repayments begin after residency. Doctoral scientists and engineers follow physicians in their ability to manage equal monthly repayments, due to their relatively high starting incomes. Interestingly enough, heavily indebted law students would appear to be least well served by equal monthly schedules, due to their comparatively lower first year incomes.

- If repayments were graduated to prospective income, the ordering by ability to repay would be physicians, followed by lawyers, followed by doctoral scientists and engineers. The reordering of lawyers and doctoral scientists and engineers is due to the shape of their respective future income profiles. Lawyers, on average, appear to begin at lower starting incomes than doctoral scientists and engineers. The rate of income growth is much steeper for lawyers; hence, their ability to repay educational loans, where repayments are graduated to income, is greater on average than doctoral scientists and engineers.

Table 11 presents aggregate manageable educational loan principal borrowing limits by interest rate within amortization period for selected professional groups.

For sake of convenience, the results for each group shown in Table 11 will be discussed separately.

Males with 5 or more years of college

For males with five years or more of college, it appears that $8,500 would represent a manageable level of borrowing for a 3 percent interest-bearing loan repayable in equal installments over ten years, such as National Direct Student Loans. For a 7 percent loan repayable in equal installments over 10 years, such as Guaranteed and Federally Insured Student Loans, a limit of $7,100 would be manageable. The lower limit for the 7 percent loan is due to the higher interest rate.

TABLE 11. Estimated Aggregate Manageable Educational Principal Borrowing Limits for Equal Installment and Graduated Repayment Option (GRO) Plans for Selected Professional Groups (Amounts in Thousands)

Length of Repayment Period/Interest Rate	Males with 5 Yrs or More of College		Lawyers		Physicians: Repayments Beginning after Residency		Pysicians: Repayments Beginning in Internship		Doctoral Scientists and Engineers	
	Equal Repay-ments	Graduated Repayment Option (GRO)	Equal Repay-ments	Graduated Repayment Option (GRO)	Equal Repay-ments	Graduated Repayment Option (GRO)	Equal Repay-ments	Graduated Repayment Option (GRO)	Equal Repay-ments	Graduated Repayment Option (GRO)
10 Year Amortization										
3% Interest	$ 8.5	$12.6-14.0[1]	$ 7.7	$18.1-20.2	$18.9	$33.7-38.1	$ 9.0	$16.5-18.4	$11.2	$14.4-15.8
7% Interest	$ 7.1	$10.5-11.6	$ 6.4	$15.0-16.8	$15.8	$28.1-31.8	$ 7.5	$13.7-15.3	$ 9.3	$12.0-13.1
10% Interest	$ 6.2	$ 9.3-10.2	$ 5.6	$13.2-14.7	$13.8	$24.6-27.9	$ 6.6	$12.0-13.5	$ 8.2	$10.5-11.5
15 Year Amortization										
3% Interest	$11.9	$20.8-24.6	$10.7	$33.5-40.8	$26.5	$62.3-77.[illegible]	$12.6	$32.5-39.9	$15.6	$22.8-26.9
7% Interest	$ 9.1	$16.0-18.9	$ 8.2	$25.7-31.4	$20.4	$47.9-59.[illegible]	$ 9.7	$25.0-30.7	$12.0	$17.5-20.6
10% Interest	$ 7.6	$13.4-15.8	$ 6.9	$21.5-26.3	$17.0	$40.1-50.0	$ 8.1	$20.9-25.7	$10.1	$14.6-17.3
20 Year Amortization										
3% Interest	$14.8	$29.6-38.2	$13.3	$53.2-71.9	$33.0	$100.9-140.4	$15.7	$55.6-76.4	$19.5	$32.4-41.4
7% Interest	$10.5	$21.2-27.3	$ 9.5	$38.1-51.4	$23.6	$72.2-100.5	$11.2	$39.7-54.7	$13.9	$23.1-29.6
10% Interest	$ 8.5	$17.0-21.9	$ 7.7	$30.6-41.3	$19.0	$60.0-80.7	$ 9.0	$31.9-43.9	$11.2	$18.4-23.8
Assumed Year in which Repayments Begin	1983		1982		1987		1983		1983	
Estimated Income During First Year of Repayment	$22.6		$21.0		$47.6		$23.5		$28.0	

[1] Lower limit assumes 3 percent annual inflation rate; upper limit assumes 6 percent inflation rate.

These two findings suggest the advisability of (a) considering extension of the NDSL repayment period from 10 to 15 years for graduate and professional students, if repayments are in equal installments, and (b) reviewing both the length of the pay-back period and the equal installment norm for the Guaranteed Student Loan Program.

If repayments were scaled to income, it appears that total borrowings of $12,600 to $14,000 would be manageable for graduate and professional students under the National Direct Student Loan Program, given a 10-year repayment period. Thus, one option would be to extend the NDSL loan maximum from $10,000 to $15,000 and include a graduated repayment option for those whose debts exceed $8,500.

These data also seem to suggest the advisability of considering revision of the Guaranteed Student Loan Program to permit postbaccalaureate students to borrow up to $16,000-$19,000, and to provide them the option of graduated repayments over 15 years if their debt exceeds $7,100.

Whether repayment periods should be extended to 20 years for graduate and professional students is debatable. Extension of the pay-back period to 20 years could have the curious result of expecting this generation of graduate and professional students to simultaneously repay their educational loans and contribute toward their offspring's educational costs. It should be noted, however, that such an extension would significantly increase manageable loan principal limits.

Law Students

It was pointed out earlier that heavily indebted law students because of their relatively modest starting incomes, would appear to be least well served, particularly during the first repayment years, by equal installment loans. Their manageable aggregate loan principal for equal installment loans, when restricted to a proportion of the average first year salary, ranges from a low of $5,600 for a 10 percent, 10 year loan, to $13,300 for a 3 percent, 20 year loan. On the other hand, because of lawyers' typically more rapid income growth experience, graduating repayments to income would enable them to borrow considerably more, yet result in manageable annual repayments. For example, the analysis in Table 11 suggests that law students could comfortably borrow between $18,100 and $20,200, for a 10 year, 3 percent loan (such as NDSL), provided repayments were graduated to prospective income. From the perspective of lawyers' income profiles, it appears as though the current Guaranteed Student Loan aggregate borrowing limit of $15,000 is manageable at 7 percent interest and 10 years for pay-back, provided repayments are scaled to income. On the other hand, it appears that extension of the GSL pay-back period from 10 to 15 years, and graduation of repayments to income, would increase the manageable GSL principal limits of law students to between $25,700 and $31,400.

Even at a 10 percent interest rate for a 15 year pay-back period, a indebtedness of between $21,500 and $26,300 would not appear to be overly burdensome for law students, on an income graduated basis.

Medical Students

Despite the fact that the future income expectations for physicians are typically higher than those for the other groups in this analysis, it does not follow that physicians have unlimited ability to repay educational loans, nor does it follow that they have infinite manageable educational debt ceilings. As with other professional groups for whom debt level analyses were conducted, whether a given level of educational debt is manageable for medical students depends on the terms and conditions of the educational loan program. The data in Table 11, for example, indicate that a manageable debt for medical students ranges from $6,600 for a 10-percent, 10-year equal installment loan (if repayments begin in internship) to $33,000 for a 3-percent, 20 year equal installment loan (if repayments begin after residency).

In terms of specific loan programs, which typically offer equal installment terms, it appears that the manageable limits for medical students are $9,000 for NDSL, $7,500 for GSL, or $17,000 for a 10 percent interest-bearing loan.

The new Health Education Assistance Loan (HEAL) program allows medical students to borrow up to $50,000, at a 10 to 12 percent interest rate for 15 years, and allows them to defer repayment for up to three years of residency. However, it contains no provisions for scaling repayments to income. If repayments were scaled to physicians' income, a $40,000 to $50,000 limit would, on average, probably be manageable. Without such scaling, a $50,000, 10 percent interest bearing HEAL loan, which converts to a equal monthly installment payment of $537, would likely be burdensome for physicians during the initial repayment years.

Science and Engineering Students

The estimates of aggregate manageable borrowing limits for doctoral scientists and engineers range, for an equal installment loan, from $8,200 (10 percent, 10-years) to $19,500 (3 percent, 20 years). Given current program features, either $11,200 in NDSL or $9,300 in GSL borrowing would be theoretically manageable.

The results in Table 11 also suggest that increasing the GSL pay-back period from 10 to 15 years and scaling repayments to income would increase the manageable principal limits for science and engineering students to between $17,500 and $20,600. One interesting observation is that scaling requirements to income has a smaller effect on borrowing limits for doctoral science and engineering students than for either medical or law students, because of their comparatively lower average rate of income growth over time.

Major Findings and Policy Implications

This study has attempted to develop a methodology for estimating manageable edcuational loan repayments from the future incomes of selected graduate and professional student groups. Manageable cumulative repayments were converted

into aggregate loan principal limits, given alternative interest rates, amortization periods and repayment plans (equal installment or graduated).

Several findings emerge from the simulations. They are:

1. For males with 5 or more years of college the manageable loan limit for NDSL, given equal installments, is $8,500. Holding the 10 year repayment period constant, but graduating repayments to income would raise the manageable NDSL limit to between $12,600 and $14,000. Graduating GSL repayments to income and extending the GSL pay-back period from 10 to 15 years would result in manageable GSL limits of between $16,000 and $18,900.

2. Of the groups analyzed, heavily indebted lawyers would appear on average to be less well served by equal installment loan repayment plans because of their typically modest starting incomes. Permitting them the option of repayments scaled to income would raise their manageable NDSL limits to between $18,100 and $20,200 or their GSL limit to between $15,000 and $16,800. Allowing both income graduated repayments and extending the amortization period from 10 to 15 years would raise their manageable NDSL limit to between $33,500 and $40,800 and the manageable GSL limits to between $25,700 and $31,400.

3. Despite the fact that the future income expectations of physicians are higher than those of the other groups analyzed, it does not follow that medical students have infinite educational debt ceilings. Given a fixed or equal installment repayment plan, a 15-year amortization period, and a 10-percent interest rate, the manageable loan limit for physicians is estimated at $17,000. Scaling repayments to income would result in a manageable loan principal limit of between $40,100 and $50,000 for 10 percent, 15-year loans, with repayment beginning after residency.

4. For doctoral science and engineering students, an $11,200 NDSL or a $9,300 GSL limit would be manageable. For a 10-year amortization period, graduation of repayments to income would increase their NDSL ceiling to between $14,400 and $15,800; the tolerable limit for GSL would be between $12,000 and $13,100.

The thrust of this study has been to quantify manageable education loan limits given permutations of repayment period, type of repayment schedule (equal installment or graduated), interest rate, inflation rate, and hypothetical prospective income growth profiles. The study is intended to aid in discussions of alternative loan policies, because loan programs are an important ingredient of current federal policy toward financing graduate and professional education. As graduate and professional school costs continue their upward spiral, there will likely be more pressure to increase borrowing limits for graduate and professional students. The results of this study suggest that borrowing limits,

repayment terms and amortization periods may require restructuring; otherwise graduate and professional students could well face an unmanageable repayment legacy. If loans are to play a key role in the future financing of graduate and professional education, and if the Guaranteed or Federally Insured Program is to be the federal student aid vehicle for this purpose, then it may be advisable to consider certain technical changes to the program:

(1) In order to maximize manageable debt loads of graduate and professional students, their undergraduate educational indebtedness should be minimized. This goal can be achieved through expansion of undergraduate grant programs such as the Basic Educational Opportunity Grant (BEOG) program and the Supplementary Education Opportunity Grant (SEOG) program.

(2) Graduate and professional students whose educational indebtedness, from all sources, exceeds an agreed-upon threshold amount, should be offered Graduated Repayment Option (GRO) plans, and the option of a 15 year repayment period.

(3) Separate threshold limits, aggregate principal limits, and graduated repayment schedules should be developed for meaningful occupational clusters and should be based on an assessment of their manageable educational debt loads.

While loans are currently an important financing mechanism for graduate and professional students, they should not be viewed as a panacea either by students, policy analysts or financially stressed graduate and professional schools. Fellowship programs and experiential work-study learning opportunities for students in the arts, humanities, sciences, and professions are needed to insure equal access to graduate and professional school, as well as to foster intellectual excellence.

APPENDIX A

Formulas for Estimating Manageable Educational Loan Repayments Assuming First Repayment Begins in 1983

(1) Adjusted Income (AI) in year y

$$AI_y = S * (1 + r)^{y-1} * I_y$$

Where: AI = Adjusted Income

S = Starting salary

r = inflation rate

y = specified year (i.e. first, second, third) of repayment period

I_y = Age-Income Ratio in year y

(2) Effective Income (EI) in year y

$$EI_y = AI_y - FT_y - FICA_y - ST_y$$

Where: AI_y = Adjusted Income in year y of the amortization period

FT_y = Federal taxes in year y, based on 1977 tax schedules

$FICA_y$ = Amount of social security taxes in year y computed as follows:

$$FICA_y = 1293 \times (1.05)^{y-1}$$

ST_y = State and other taxes in year y, computed as follows:

$$ST_y = AI_y \times .08$$

(3) Annual Repayment (AR) in year y

Effective Income in year y	Annual Repayment in year y (AR_y)
\$0 to ($12870 \times (1+r)^{y-1}$	$.054 \times EI_y$
$12871 \times (1+r)^{y-1}$ to $19548 \times (1+r)^{y-1}$	$(695 \times (1+r)^{y-1}) + (.09 \times (EI_y - (12870 \times (1+r)^{y-1}))$
$19549 \times (1+r)^{y-1}$ to $27328 \times (1+r)^{y-1}$	$(1299 \times (1+r)^{y-1}) + (.09 \times (EI_y - (19548 \times (1+r)^{y-1}))$
$27329 \times (1+r)^{y-1}$ and over	$(2151 \times (1+r)^{y-1} + (.157 \times EI_y - (27328 \times (1+r)^{y-1}))$

(4) Cumulative Repayments for amortization period N years in length

$$CR = \sum_{y=1}^{N} AR$$

Where CR = Cumulative Repayments

N = Number of years in amortization period

Y = Year

(5) Tolerable Debt Limit (Principal) P

$$P = \frac{CR/(12 \times y)}{\frac{i/12}{(i/12)^{(N \times 12)} - 1)} + i/12}$$

Where: i = annual interest rate

APPENDIX B

INCOME OF LAWYERS

1973 INCOME OF LAWYERS IN MASSACHUSETTS SURVEY				
Years Admitted[1]	Mean 1 Income	Estimated Age	Age Midpoint	Mean Annual Growth Rate
Less Than 1	$ 8,903	24	24	.....30%
1 - 4	$15,135	25 - 28	26	.....10.5%
5 - 9	$25,047	29 - 33	31	.....4.7%
10 - 14	$31,585	34 - 38	36	.....4.0%
15 - 19	$38,445	39 - 43	41	.....1.5%
20 - 29	$42,773	44 - 53	49	

[1] Source: Economic Survey Conducted by the Massachusetts Bar Association 1973

Massachusetts Bar Association, 1975, page 5.

Estimated Starting Salary:

$11,600 in 1973 Dollars
x 1.81 Estimated Rise in CPI from 1973 - 1982
(133.1 to 241.2)
$ 21.0 = Estimated Starting Salary in 1982

ESTIMATED MEAN 1973 INCOME OF LAWYERS BY AGE

Age	1973 Income	Ratio
25	$11.6	1.00
26	$15.1	1.30
27	$16.6	1.43
28	$18.4	1.59
29	$20.3	1.75
30	$22.4	1.93
31	$25.0	2.16
32	$26.0	2.24
33	$27.2	2.34
34	$28.4	2.45
35	$29.8	2.57
36	$31.6	2.72
37	$32.4	2.79
38	$33.7	2.90
39	$35.1	3.03
40	$36.5	3.15
41	$37.9	3.27
42	$38.5	3.32
43	$39.1	3.37
44	$39.7	3.42
45	$40.3	3.47
46	$40.9	3.53
47	$41.5	3.58
48	$42.1	3.63
49	$42.7	3.68

APPENDIX C

Professional Income of Physicians

PHYSICIANS MEAN PROFESSIONAL INCOME IN 1977 DOLLARS

Age	1977 Income	Ratio 1	Ratio 2
26	16.7	1.0	
27	17.7	1.06	
28	18.9	1.13	
29	19.9	1.19	
30	24.0	1.44	1.00
31	26.3	1.57	1.10
32	28.6	1.71	1.19
33	30.9	1.85	1.29
34	33.3	1.99	1.39
35	35.6	2.13	1.48
36	37.9	2.27	1.58
37	40.3	2.41	1.68
38	42.6	2.55	1.78
39	44.9	2.69	1.87
40	47.3	2.83	1.97
41	49.6	2.97	2.07
42	51.9	3.11	2.17
43	54.2	3.25	2.26
44	56.6	3.39	2.36
45	58.9	3.52	2.45
46	61.2	3.66	2.55
47	63.1	3.78	2.63
48	64.0	3.83	2.76
49	64.7	3.87	2.70

Source: Unpublished Data, Institute of Demographic and Economic Studies

Ratio 1 - Assumes repayments start during internship

Ratio 2 - Assumes deferment during one year of residency and three years of internship.

ESTIMATED STARTING INCOME OF PHYSICIANS

In 1983, at age 26

$16,700 = 26 year old's income in 1977 dollars

x 1.407 Rise in CPI from 1977 to 1983 (181.6 to 255.5)

$23,496 = Estimated mean 1983 income of 26 year old.

In 1987, at age 30

$24,000 = 30 year old's income in 1977 dollars

x 1.776 Estimated rise in CPI from 1977 to 1987 (181.6 to 322.6)

$42,624 = Estimated mean income of 30 year old in 1987 dollars.

APPENDIX D

Income of Doctoral Scientists and Engineers

ESTIMATED MEDIAN 1983 STARTING INCOME OF DOCTORAL SCIENTISTS AND ENGINEERS	
Estimated Income of 26 year old in 1973 dollars	$14,600
Rise in CPI from 1973 to 1983 (133.1 to 255.5)	1.92
Estimated 1983 starting income	= $28,032

UNITED STATES DOCTORAL SCIENTISTS AND ENGINEERS

Median Annual Salary by Age -- 1973

	Median 1973 Salary [1]	Age Midpoint	Mean Annual Growth Rate
Under 30	$15,500	28	
			1.032
30-34	17,500	32	
			1.023
35-39	19,600	37	
			1.022
40-44	22,000	42	
			1.018
45-49	24,200	47	
			1.0065
50-54	25,000	52	
			1.0024
55-59	25,300	57	
			1.004
60-64	25,800	62	
Over 64	24,700	—	—

[1] Source: Doctoral Scientists and Engineers in the United States: 1973 Profile, National Academy of Sciences, March 1974, page 25, Table 10.

INTERPOLATED MEDIAN 1973 SALARY OF DOCTORAL SCIENTISTS AND ENGINEERS

Age	1973 Salary	Ratio
26	14.6	1.00
27	14.9	1.02
28	15.5	1.06
29	16.0	1.10
30	16.5	1.13
31	17.0	1.16
32	17.5	1.20
33	17.9	1.22
34	18.3	1.25
35	18.7	1.28
36	19.2	1.32
37	19.6	1.34
38	20.1	1.38
39	20.5	1.41
40	21.0	1.44
41	21.5	1.47
42	22.0	1.51
43	22.4	1.53
44	22.8	1.56
45	23.3	1.60

Student Loan Policy: A Modest Agenda for Change

Dennis A. Kernahan

Most discussions of the legislative process suggest that responsible solutions to complex problems require thorough knowledge of the situation to be remedied, the ability to devise practical means for remedying that situation and the drafting of understandable solutions which serve as a guide to those charged with administering the law. The wisdom of this observation lies in its academic purity--as a standard to which those charged with legislating should aspire. More to the point is an observation from an article in The Wall Street Journal that it should not be too surprising when something turns out far differently from the way Congress, some federal agency, or some corporation meant. After all, notes the article, these decisions are comparatively narrowly conceived and often taken with relative suddenness. An observation not without applicability to current legislative events.

That this symposium on federal student loan programs is an attempt to move the legislative process towards a more rational consideration of the issues is commendable, although I suspect that a leap from the reality of The Wall Street Journal to the model legislative process is impossible. Rather, we operate somewhere in between being a prisoner of our own experience and biases and the impartiality that that policy analysis deserves. It is predictable, therefore, that certain people will observe that the preferred approach to a review of federal policy is to sort out the possible effects and consequences of that particular policy as it now operates and not embrace new approaches quite so precipitously. A second approach is to be skeptical of the conventional wisdom and urge a departure from the tenets upon which current programs are built. If I must admit to a preference or choose a point of departure for this presentation, it is the former point of view. Not because of blind faith in the value of incrementalism but because conditions as I view them do not call for the wholesale abandonment of the philosophy upon which current loan programs, especially the GSLP, are based.

That there is a definite relationship between dollars, access, choice and educational achievement is evident. There are loan programs, therefore, which focus on a variety of special groups and exist for a variety of social, political, and economic reasons, some persuasive, some not so persuasive. There are proposals for loan programs for first resort, last resort and some that probably no one wants to resort to. I would prefer, however, to direct my comments to the federal guaranteed loan programs, especially the Guaranteed Student Loan Program. Looking

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at the GSLP which was forged out of the tuition tax credit debate of the early 1960's, one can sense that it was and still is regarded as a pragmatic solution to the issue of capital availability for financing postsecondary education. All things being equal it should have proved to be a creative response to a social and economic problem.

In looking at the GSLP statutory language one can appreciate the mechanisms created to provide student loan credit but you get no sense of the justification or reasoning behind the approach nor of the conflicts that this legislation was intended to resolve. Leaving aside the political circumstances which gave rise to the GSLP, the philosophy behind the program is still creditable. Lack of alternative capital sources without federal incentives and guarantees and the inadvisability of putting appropriations into the budget for federal loan capital puts a premium on the utilization of those programs which are based on federal or state guarantee of loans and other subsidies--the purpose of which is to entice private capital into a socially useful extension of credit. While this may make fiscal sense there are no doubt social consequences resulting from this policy. For as Alexander W. Astin observes in Preventing Students From Dropping Out, "From the standpoint of public policy, loans represent one of the most controversial sources of financial aid. Proponents of loan programs are attracted by the relatively low cost, arguing that limited resources can be made available to many more students if they are heavily concentrated in loan programs. Some object to burdening students with long-term debts, while other point to allegedly high default rates." But to paraphrase the public service ads of one major corporation--there are no absolute solutions, only intelligent choices. Choices have been made and more choices must be made in the future.

I think it is instructive to look at the original statute governing the GSLP as a point in a line of continuous development up to and including the proposals embodied in the Middle Income Student Assistance Act and the College Opportunity Act. Legislative changes along this continuum include a series of adjustments in the administrative structure of the program, eligibility criteria, and pattern of incentives, including the institution of a special allowance, the tying of that to a formula pegged to the 90-day Treasury bill, an increased potential yield, and the institution of a secondary market, Sallie Mae. This legislative intervention in support of a continued flow of private capital into the GSLP is evident in the pending Middle Income Assistance Act and the College Opportunity Act which contain certain provisions broadening the eligibility of student borrowers for interest subsidies and provide an extra one-half of one percent yield on student loans which are in a payout status as well as assure lenders a minimum yield of 8 percent on their student loans.

The purpose of these provisions has been to support the operations of the GSLP so that dollars from private sources continue to be available to student borrowers. Thus, the choices made over the past ten to twelve years have been in terms of refining and redefining the operations of a system of credit built on the extension of private capital with governmental supports. The ultimate goal is to achieve a proper balance between political, social, and economic considerations in the extension of credit--with the assumption that a proper blend of lenders will make the process work.

Has this been successful and will it continue to be an efficient and effective means of allocating loans to students? It is certainly no news to say that the GSLP has been subject to a great deal of criticism. Some of this criticism appears to be based on theoretical or doctrinal grounds and some on actual program

failures. Doctrinal grounds often focus on the mechanism proper and the implications that the current delivery system has in terms of access to dollars and flexibility and efficiency of payment. Criticism of program performance has centered around administrative issues such as program regulations which tend to inhibit participation, the relative responsiveness of federal versus state administration of the program and loan default experience. The last issue is often discussed in terms of consumer loan performance criteria with scant acknowledgement of the risks that a student loan program implies and what a truly acceptable default level should be.

It would be naive to suggest that all the program performance issues have been addressed and that criticisms of the current delivery system are diminished by the actual experience of billions of dollars in credit outstanding under the GSLP. However, many program administration issues were largely dealt with in 1976 and some additional time is needed for performance and related trends to be assessed. If trends pointing to the development of state agencies and more effective program administration occur combined with incentives contemplated in pending legislation, then the question of the efficiency of the delivery system can be subjected to more complete scrutiny. Prior to this scrutiny, the issue of capital availability needs to be more systematically addressed so that the information as to unmet need is less anecdotal and more quantifiable.

A strong knowledge base dealing with the question of capital availability for certain groups or types of borrowers will enable interested parties to fashion better policy responses and incidentally deal with such questions as NDSL continuation and the propriety of loan program consolidation. On the whole I feel that the GSLP can respond to the needs of the majority of borrowers if there is a consistency of purpose about the program as reflected in regulations, the development of state administrative structures and support for secondary market operations.

It is, however, those borrowers on the margin who must also be dealt with fairly if a viable federal loan policy is to exist. The exploration of the question of capital availability will do much to move this discussion forward. Likewise, the question of who can borrow, how much and for how long should be thoroughly explored before suggestions are made to increase borrowing limits or restructure repayment terms.

At the risk of sounding too simplistic, let me review my rather cryptic remarks on the subject of federal loan policy. Before suggesting policy changes, let us look at the major shortcomings in the system requiring a policy response. They are: What are the true dimensions of the problems of capital availability? and a corrollary question--What special classes of borrowers are inadequately served in terms of ability to borrow and repay? Additional knowledge in these areas will enable us to address the following: (1) the specific unsatisfied financial needs of student borrowers; (2) the terms on which loan capital should be made available; (3) whether existing governmental programs should be expanded or coordinated to serve borrower needs and, (4) whether a new government entity would address these concerns more effectively and efficiently given their administrative and budgetary implications.

If the GSLP is given a chance to work it will meet a reasonable amount of loan demand. This assertion does not overlook the need for resolution of administrative problems or the need to properly structure new state agencies and current guarantee programs so they are responsive to a majority of borrowers on a state-by-state basis. Nor can this overlook the importance of the federal role in attempting to meet shortcomings in the availability of credit.

Equally important is meeting the needs of the students who can find no credit or who need more credit than is currently provided and on terms that are equitable and susceptible to reasonable repayment. Here the current loan mechanisms must be thoroughly reviewed in terms of providing capital access and borrowing flexibility to meet the needs of marginal borrowers at both ends of the spectrum--the borrower who can't obtain a loan due to economic status or geography, and the one whose needs are greater than the average.

The resolution of these questions will condition the direction of private capital and the role it will play in providing loan funds for postsecondary education.

Improvements in the efficiency of the current GSLP delivery system in terms of its administrative configuration, the regulatory burden attendant to the ownership of loans, and the pattern of incentives for continued lending under the program provide a firm basis for effective utilization of the GSLP as the main source of loan funds to students.

In an environment where there is a pattern of support for lenders that is reflected in good administration, reasonable regulations and meaningful incentives, Sallie Mae can work with them in support of their lending efforts. Over the past few years, the corporation has developed a variety of programs directed toward meeting the credit needs of a majority of lenders including commercial banks, thrift institutions, direct state lenders and educational institutions who are lenders. In the area of the Health Education Assistance Loan Program, Sallie Mae stands ready to provide its secondary market services consistent with the program terms as articulated by the Congress and implemented by the Department of Health, Education, and Welfare. Sallie Mae's role is to help assure the availability of capital through its secondary market and warehousing advance facilities. The corporation's structure implies a balance between the dictates of reasonable profitability and management controls and the primary objective of support of the GSLP and HEAL programs.

As attention begins to focus on the reauthorization process for student aid programs, the effectiveness of the current loan program delivery system should serve as a starting point for consideration of federal loan policy. However, the definition of the problem is a prerequisite to reasonable discussion of the solution. Agreement on a set of policy objectives for the GSLP dealing with the issues of default, capital availability, the appropriate levels of loan indebtedness and repayment systems can serve as a guide to evaluating the effectiveness of the current system as well as a challenge to proponents of the GSLP to respond in a flexible and imaginative manner.

Hopefully, this will lead to a reasoned consideration of the options and an objective evaluation of the strengths of the current system vis-a-vis the promises of alternative systems.

A Case for the Status Quo -- With Better Management

Jay W. Evans

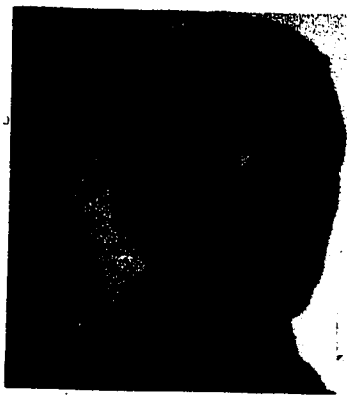
A. FEDERAL, STATE, AND PRIVATE PROGRAMS OF LOW-INTEREST INSURED LOANS TO STUDENTS IN INSTITUTIONS OF HIGHER EDUCATION

Section 421(a) of the Higher Education Act of 1965 (as amended), Title IV, Part B, states that the purpose of the guaranteed student loan programs is to enable the Commissioner (1) to encourage states and non-profit private institutions and organizations to establish adequate insured loan programs for students in eligible institutions...(2) to provide a federal program of insured student loans for students or lenders who do not have reasonable access to a state or private non-profit program.

Appropriations have been made and the Commissioner was given the legislative authority to develop and execute a plan designed to encourage the establishment of student loan programs by each state (whether operated by an agency of the state or by a non-profit private organization designated by the state). The U. S. Office of Education operates the program in those states not choosing to create their own administrative unit. There are currently 28 state programs and approximately $1.5 billion is being guaranteed annually in the GSL program, with over half that amount being guaranteed by the existing 28 state guaranty agencies.

B. THE PRESENT SITUATION

The Higher Education Assistance Agency operates the program in Pennsylvania, and last September our program passed the $1 billion volume mark since its beginning in June, 1964. The program has and



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continues to work rather well as a viable option in helping students meet their college costs for some very good reasons. Among them are:

1. Pennsylvania lenders are paid a 1/4% state lender participation fee on their loan volume as an administrative cost offset.

2. Lenders are given the flexibility to set their own lending restrictions and maximum loan limits within the GSL framework.

3. The eight Agency regional offices throughout the state have given lenders, students and educational institutions "finger tip" contacts to information and resolution of problems.

4. Agency staff, working cooperatively with representative lenders, have generated a series of services to alleviate burdensome paperwork procedures to the benefit of both computer and manually operated lender operations. These include such things as combining forms, computer-produced notes, computer-produced renewal applications mailed directly to the borrower, Agency operated out-of-school verification and notification to lenders, pre-claim assistance on delinquent accounts, and an Agency operated Sallie Mae service center.

5. Successfully proposed state legislation, subsequently enacted by the General Assembly, providing corporate tax breaks to lenders and authorizing wage garnishments on delinquent borrowers.

C. THIRD PARTY LENDERS

A "third party lender" is the primary source of funds for commercial lending throughout the country. Student attitude toward repayment of guaranteed loans is no different than that of commerical loan borrowers, in that their attitude is directly attributed to their views at the time the loan is made. Repayment obligation of guaranteed student loans to a commercial "third party" lender carries much more authority than if the source of funds is a government agency.

Experience over the years has shown that proper collection work starts with the borrower at the time the loan is made. Attitude toward repayment begins here. My point is: commercial lenders are the best method of guaranteed student loan assistance and that by providing lenders with adequate return and reasonable workloads to place and collect their loan portfolios, will ultimately lead to their maximum participation in the program.

D. LOW DEFAULTS VERSUS WIDE ACCESS

If the purpose of this program is to produce low-risk loans, those which would not ever go into default for other than death or total and permanant disability, it would be incumbent on the guarantors to place stringent restrictions on obtaining these funds, such as, co-signers, credit checks, and limitations on reinsurance payment rates; but what would happen to access? Loans would dry up and students who need the loans to hedge higher costs and reduced family discretionary dollars would not be able to receive them. On the other hand, if the intent of the program is to give a loan to virtually every person who applied through minimal eligibility requirements, there is the in-born threat of dealing with delinquent accounts, and to quote a phrase, "something you obtain too cheaply is taken too lightly."

E. WHY CHANGE WHAT WE HAVE UNTIL WE KNOW WHAT EFFECT THE '76 AMENDMENTS HAVE MADE?

It is obvious that sufficient time has not passed to determine what effects the GSL program amendments of 1976 have made; not only toward increasing greater program access, but also keeping delinquency rates within tolerable parameters. One of the primary reasons why access to the program has not been universal in the past is because of the numerous legislative and regulatory changes enacted and implemented every few years. The program needs left alone (or only minor changes permitted) to test whether less tinkering may very well result in increased effectiveness in the areas of collection and placement of loans. One change we do need though, is the authority to obtain information from both the Internal Revenue Service and the Social Security Administration to help state guaranty agency and USOE in tracking delinquent borrowers. Such authority will greatly improve collection efforts and lower default rates throughout the country. Also, the student loan program should be exempt from Truth-in-Lending and Privacy Act requirements. The mandatory provisions in both these pieces of legislation force both lenders and borrowers through unnecessary "hoops" and stymie the basic intent of ready access to needed funds to pay college costs. The collateral for educational loans should appropriately be (non-tangible) future earnings. Automobile loans, mortgages, etc., are tangible purchases which can be sold if default occurs, but loans for education cannot be replaced with tangible property. It was on this basis, Congress agreed these educational loans should be exempt from bankruptcy for five (5) years following the date the borrower is required to begin repayment.

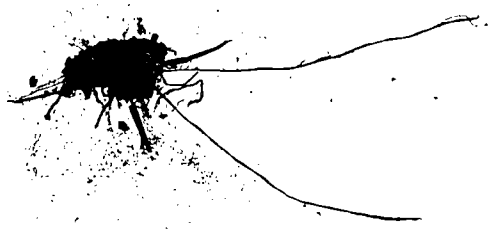
FOR WHOM SHOULD THE PROGRAM BE TARGETTED?

A well functioning guaranteed student loan program was never intended to be targetted for low-income students exclusively since most other federal and state student assistance resources are targetted to these students. As we know, these other federal and state programs have never been fully funded; and therefore, by forfeit, the guaranteed student loan programs has had to become the primary financial resource for

low-income students. It is and has been my opinion for some time, that the program should be targetted for middle-income students primarily, but without excluding those low-income students who need a "filler" in the student aid package to permit them to attend the institution of their choice without going into unreasonable indebtedness.

G. SUGGESTIONS FOR LEGISLATIVE CHANGE

I am not in favor of changing the method of getting loans to students and I feel that the primary source of funds should come from commercial third party lenders. As I pointed out, the needed legislative changes are in the area of strengthening the hands of state agencies and the federal government in the areas of tracking delinquent borrowers to prevent defaults. Overall, the guaranteed student loan program has met the challenge of frustration caused by our inflationary economy as can be witnessed by annual volume increases. This fiscal year through March, the number of borrowers in the Pennsylvania program versus the same time period last fiscal year is up 20 percent (68,300 to 81,800) and the value of guaranties is up 42.6 percent ($103.7 million to $147.9 million). Other states are registering similar gains. The positive thing about the program is that its critics call for an overhaul because of all the unpleasant publicity given to the FISL program's default rate, but fail to turn the stone over to see 95 percent plus of the graduated borrowers are on scheduled repayment. It's this little publicized latter statistic that proves the program is working--as is.



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APPENDICES

Comparison of Seven Federal Student Loan Programs

Guarantee Agency Profiles

Comparison of Seven Federal Student Loan Programs

	NDSL (OE)	GSL (OE)	HEAL (OE)	HPSL (PHS)	NSL (PHS)	VA	LEEP (JUSTICE)
LENDER	Eligible schools, using Federal and school funds (ratio of 9 - 1) in revolving fund	Eligible banks, schools, etc., state agencies and designated non-profit agencies using private capital	Eligible banks, schools, agencies, etc., using private capital	Eligible health professions schools, using Federal and school funds (ratio of 9 - 1) revolving fund	Eligible nursing schools, using Federal and school funds (ratio of 9 - 1) revolving fund	Federal Government (VA)	Eligible school using Federal grant funds
STUDENT ELIGIBILITY	U.S. national or permanent resident, or intending to become such. Enrolled at least ½ time at an eligible school. Graduate or undergraduate. Satisfactory progress, etc. Lender may impose additional criteria. For schools in U.S.	U.S national or permanent resident, or intending to become such. Enrolled at least ½ time at an eligible school. Graduate or undergraduate. Satisfactory progress, etc. Lender may impose additional criteria. May attend foreign schools.	U.S. national, etc. Enrolled in full-time graduate study in designated health professions program at eligible school in U.S. eligible for capitation grant. May not hold GSL for same year. (No more than 50% of eligible students at some schools.)	U.S. national or permanent resident, etc. enrolled full-time at eligible school. Selected by school, graduate or undergraduate.	U.S. national, etc. Enrolled at least ½ time in eligible nursing diploma or degree program. Graduate or undergraduate. Selected by school.	180 days military service enrolled in approved course of study. May only be used during service or within 10 years of discharge. Must be used at school in U.S.	U.S. national, etc. Enrolled for full-time study in crime related degree program. Must agree to enter and remain in law enforcement work, otherwise must repay at 7% interest. Graduate or undergraduate. For pre-service loan, may not be Freshman. No need test.
LOAN LIMITS	$2,500 limit for first 2 years of higher education (and for up to 2 years of vocational school), $5,000 limit for 4 years of higher education $10,000 aggregate limit for higher education both graduate and undergraduate	For undergraduate/vocational - $2,500 annual, $7,500 aggregate for graduate + professional - $5,000 annual, $15,000 aggregate with some exceptions (guarantee agencies and lenders may have lesser limits.)	$10,000 per year, $50,000 aggregate. (pharmacy students limited to $7,500 annual and $37,500 aggregate)	tuition plus $2,500 per year determined by school according to "need". No aggregate limit.	Up to $2,500 per year dependent on "need" - determined by school. $10,000 aggregate limit.	Up to $2,500 per 9 mo. academic year, plus $825 for summer. Aggregate maximum depending on length of service.	$2,200 per academic year, plus $750 for summer. No aggregate limit.
INTEREST RATE	3%, beginning 9 mo. after leaving school	7%, beginning 9-12 mo. after leaving school for subsidized loans, beginning immediately for students not qualified for subsidy. (New legislation will make all loans subsidized.)	12% maximum, payable throughout life of loan. Interest can be accrued to principal during school and 3 yrs. of internship/residency.	7% beginning 12 mo. after completion of training	3% beginning 9 mo. after leaving school	7% beginning 9 mo. after leaving school	7% for life of loan, payable only for periods when not working in law enforcement (35 -40% don't find such employment).
REPAYMENT	10 year limit beginning 9 mo. after leaving school. Deferment up to 3 years each for Armed Forces, VISTA, Peace Corps, further ½ time enrollment	10 year limit from beginning of repayment (9-12 mo. after leaving school) up to 3 yrs deferment for Armed Forces, VISTA, Peace Corps, further full-time study at eligible schools, and for 1 year of unemployment, and for approved independent graduate study programs.	10-15 years, beginning 9-12 mo. after completion of training (including residency and internship) Deferment for up to 3 yrs. - Armed Forces Peace Corps, VISTA, NHSC, internship and residency, or for full-time study at an eligible school. 25 year limit on life of loan.	10 years, beginning 12 mo. after leaving school. Deferment up to 3 years for Armed Forces, and Peace Corps, PHSC, and for up to 5 years for further advanced professional training.	10 years, beginning 9 mo. after leaving school. Deferment to 3 years - Armed Forces, Peace Corps, PHSC, and to 5 years for full-time nursing training.	10 years, beginning 9 mo. after leaving school. No deferments.	repay at rate of $50 per month only if failure to work in law enforcement field.
CANCELLATION	for service as full-time teacher: -at schools with many low-income students (15% 1st + 2nd yr., 20% 3rd + 4th, 30% 5th yr.) -of handicapped students(same rates) -in a Head Start program (15% per school year) up to entire loan -for military service in hostile area (12½% for each year of such service, up to 50% of loan) -for death, total and permanent disability and bankruptcy	death, total and permanent disability, and bankruptcy	repayment by U.S. at maximum rate of $10,000 per year for service in NHSC, or for service in designated shortage areas. (Must commit for 2 years.) - for death, disability and bankruptcy	60% repayment by U.S. if agrees to practice in designated shortage areas for 2 years. Additional 25% if serve for 3rd year. Obligation cancelled if failure to complete training and exceptional need and can't be expected to resume training for 2 years (also applies to health students with NDSL or GSL). -death, disability	50% repayment by U.S. if agrees to practice in designated shortage areas for 2 years. Additional 25% cancellation if serve for 3rd year. Up to 85% of obligation cancelled for work as full-time registered nurse in public/non-profit institution (both apply also to nursing students with GSL or NDSL) -death, disability	None.	forgiven at rate of 25% for each year of employment in public law enforcement after completing training.

	NDSL (OE)	GSL (OE)	HEAL (OE)	HPSL (PHS)	NSL (PHS)	VA	LEEP (JUSTICE)
STATUTE	Higher Education Act, Title IV, Part E, as amended	Higher Education Act, Title IV, Part B, as amended	Public Health Service Act, Title VII, Part C, Subpart I (1976 amendment)	Public Health Service Act, Title VII, Part C, Subpart II	Public Health Service Act, Title VIII	Veterans Readjustment Assistance Act of 1966, Title 38	Omnibus Crime Control Acts of 1968 and 1970, as amended
PURPOSE	To enable colleges to make low interest loans to needy students from revolving funds to enable completion of educations. To meet national manpower needs for teachers, etc. Original purpose was prigarily national defense through developing needed manpower.	To make low interest loans to students to enable attendance at post-secondary institutions of choice - through interest subsidy, insurance reinsurance, and encouragement of state level insurance programs.	To encourage lenders to make loans available to health professions students to complete graduate degree programs; to strengthen national health delivery by encouraging service in shortage areas and by insuring adequate level of trained manpower.	To enable schools to make low interest loans to health professions students (all levels), to strengthen national health delivery by encouraging service in shortage areas and by insuring adequate level of manpower.	To enable schools of nursing to make low interest loans to nursing students, to insure adequate nursing manpower, encourage service in shortage areas and as registered nurses.	To assist veterans to pursue educational objectives in readjustment to civilians life; and as supplement to GI Bill education allowance	To professionalize and improve the quality of the criminal justice system.
HISTORY/ SCOPE	Began in 1958 as part of NDEA; 1st OE student assistance program. In 1972 added to Higher Education Act. Over 20 year history, $5 billion has been loaned to 4.5 million students, 3,500 schools. In 1976 - 1977, 3,300 schools loaned $575,599,000 to 831,000 students	Began with 1965 Higher Education Act and National Vocational Student Loan Insurance Act. Built on existing agencies in 17 states. Over $10 billion loaned during 10 year history. In FY 78 estimated 932,000 students receive $1.6 billion to attend 8,120 schools. 14,140 lenders. 29 guarantee agencies now in place.	Expected to be operational for 78-79 school year. 321 schools expected to participate.	Began in 1965. In FY 76 $24 million assisted 16,700 students at 286 schools. FY 77 - $20 million, 16,200, 286 schools	Began in 1965. FY 1974, $25,000,000 loaned to 37,818 students at 1151 schools	Began in 1975. In FY 1977 aided 14,385 vets with $14,159,532	Began in 1968. In FY 1977, 65,000 students aided to attend 1,014 schools.

STUDENT CHARACTERISTICS

	NDSL	GSL	HPSL	NSL	VA and LEEP
Dependent Undergraduate Family Income			Family Income		
Less than $6,000	14.9%	8.0%	Less than $ 3,000	20%	25%
$ 6,000 - $ 7,499	6.9%	5.5%	$ 3,000 - $ 5,000	11%	20%
$ 7,500 - 11,999	17.8%	12.9%	$ 5,000 - $ 7,500	14%	23%
$12,000 - 14,999	16.5%	16.8%	$ 7,500 - $10,000	13%	22%
$15,000 or more	14.5%	23.8%	$10,000 - $12,000	10%	15%
			$12,000 or more	32%	24%
Independent Undergraduate	21.6%	18.4%			
Graduate Students	7.8%	14.6%			
Minority participation	26%	17%	Minority participation	15.6%	25.4%
(From '76-'77 HEP survey. Data does not include vocational school students.)			(Reported by PHS for FY 74 - most recent data available.)		No data available.

GUARANTEE AGENCIES PROFILES

Agency	Rate of Insurance Premium	Annual Loan Limits Below Maximum: Undergrad.	Annual Loan Limits Below Maximum: Graduate	Aggregate Loan Limits Below Maximum: Undergrad.	Aggregate Loan Limits Below Maximum: Graduate	Insurance Covers: Interest	Nonsubsidized Loans	Half-time Students	Students Going Out-of-State	100% of Prin.	Up to $10,000 for Health Prof.	Endorser	Permit Schools To Be Lenders	Restrictions on OE Eligible Schools	Residency Requirements
ALASKA	.75%					X	X	X	X	X		No	X	No Home Study	
ARKANSAS	1%					X	X	X	X	X	X	Required if minor	X	None	1 year
CONNECTICUT	None					X	X	X	X	X	As of 1/1/78	No	X	None	1 year
DELAWARE	.75%					X	X	X	X	X	X	No	X	No Home Study	6 mos. or at in-state school
GEORGIA	1% during in-school & grace periods					X	X	X	X	X	X	Permitted	X	New regs may restrict corresponding schools	Legal resident or non-resident at in-state school
ILLINOIS	None					X	X	X	X	X	X	No	X	No Home Study	6 mos. if indep. at out-of-state school
KANSAS	1%					X	X	X	X	X	Last 2 yrs only	Permitted	X	None	None
LOUISIANA+	None	$1,500	$2,000		$10,000	X	No	No	Coll, Yes Voca, No	X	X	Permitted	No	No foreign schools No vocational out-of-state schools	U.S. citizen & bona fide resident for 1 year. Voter registration may be required.

GUARANTEE AGENCIES PROFILES

Agency	Rate of Insurance Premium	Annual Loan Limits Below Maximum: Undergrad.	Annual Loan Limits Below Maximum: Graduate	Aggregate Loan Limits Below Maximum: Undergrad.	Aggregate Loan Limits Below Maximum: Graduate	Insurance Covers: Interest	Insurance Covers: Nonsubsidized Loans	Insurance Covers: Half-time Students	Insurance Covers: Students Going Out-of-State	Insurance Covers: 100% of Prin.	Insurance Covers: Up to $10,000 for Health Prof.	Endorser	Permit Schools To Be Lenders	Restrictions on OE Eligible Schools	Residency Requirements
MAINE	.75%					X	X	X	X	X	X	No	X	No Home Study	6 mos. or at in-state school
MARYLAND	.75%					X	X	X	X	X	No	Permitted	X	None	Dependent-1 day Independ.-6 mos. Non-resident at in-state schools relation to MD lend
MASSACHUSETTS	1%					X	X	X	X	X	X	Permitted	X	None	Permanant resident of-MA
MICHIGAN	1% one-time fee					X	X	X	X	X	No	Permitted	X	None	None
MINNESOTA	1%					X	X	X	X	X	Last 2 years only	Permitted	X	None	None
NEVADA	.75%					X	X	X	X	X	No	No	X	No Home Study	6 mos. in or at in-state school
NEW HAMPSHIRE	1%					No	X	X	X	X	No	Permitted	No	None	Legal resident of NH 6 mos. prior to application or at in-state school
NEW JERSEY	1%					X	X	X	X		X	No	X	No corresponding schools	
NEW YORK	1%					X	X	X	X	X		No	X	None	Resident or approved in-state school

GUARANTEE AGENCIES PROFILES

Agency	Rate of Insurance Premium	Annual Low Limits Below Max.		Aggregate Loan Limits Below Max.		Insurance Covers:						Endorser	Permit Schools To Be Lenders	Restrictions on OE Eligible Schools	Residency Requirements
		Undergrad.	Graduate	Undergrad.	Graduate	Interest	Nonsubsidized loans	Half-time Students	Students Going Out-of-State	100% of Prin.	Up to $10,000 for Health Prof.				
NORTH CAROLINA	.5%					X	X	X	X	X	No	No, but considering	X	No corres. sch. No sch. "w/o walls"	1 year as a non-student
OHIO	1%/yr through grace					X	X	X	X	X	X	Permitted	X	None	Resident or at out-state school
OKLAHOMA	1%	12 mos- $2,400 1 sem - $1,800	12 mos- $4,000 2 sem - $3,000			X	X	No	X	X	No	Permitted	X	None	Resident of OK
OREGON	1% during insch. & grace. .5% during repayment					X	X	X	X	X	No	Permitted	X	None	1 year
PENNSYLVANIA	.5% during insch. & grace	Half-time students are ltd. to 1/2 the Limits			$10,000	X	X	X	X	X	X	Permitted	X	No seminaries or Sch. of Theology	30 days prior applic. for those going out-of-state All others-No
RHODE ISLAND	1%	1- $1,500 2- 1,500 3- 2,000 4- 2,500	$2,500		$10,000	No	X	X	X	Yes, after 7/76. 90% prior	No	Permitted. Required on non-subs. loans	No	No home study Must offer a 1-yr. course of study	6 mo. prior to loan approval
TENNESSEE	None					X	X	X	X	X	No	Required	X	None	Having permanant domicile in TN

GUARANTEE AGENCIES PROFILES

Agency	Rate of Insurance Premium	Annual Loan Limits Below Maximum: Undergrad.	Annual Loan Limits Below Maximum: Graduate	Aggregate Loan Limits Below Maximum: Undergrad.	Aggregate Loan Limits Below Maximum: Graduate	Insurance Covers: Interest	Nonsubsidized Loans	Half-time Students	Students Going Out-of-State	100% of Prin.	Up to $10,000 for Health Prof.	Endorser	Permit schools to be Lenders	Restrictions on OE Eligible Schools	Residency Requirements
VERMONT	.5%					X	X	X	X	X	No	Permitted	X	No corres. schools	1 year
VIRGINIA	.5%					X	X	X	X	X	No	Permitted (to be changed w/ new agreements)	X	None	30 days prior to entering VA school
WISCONSIN	.5%					No, but will if lender used due diligence	Same as for interest	X	X	X	X	Permitted	X	None	None
USAF	.75%					X	X	X	X	X	X	Permitted In LA required for married students	X	No Home Study	None