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## ABSTRACT

The paper discusses alternative forms of financing for postsecondary education. Most will agree that higher education is too costly to leave to the natural devices of the marketplace. The basic fiscal alternatives are: (1) to privatize the offerings of educational services and the decision to buy them; (2) to make the offering of educational services a nongovernmental function organized and offered entirely by non-profit (and possibly profit-making) corporations; and (3) to provide tax support for institutional operations and whatever degree of subsidy to the other cost of attendance may be felt necessary on public policy grounds. Each of these basic alternatives has implications for the numbers of students from each segment of society who would obtain education beyond high school, the mode of operation of educational institutions, the extent of public policy control and responsiveness to perceived public policy needs, and the incidence of cost. In short, the author argues that the fiscal pattern that should be chosen depends on one's view of what individuals and society seek to accomplish via higher education. Some specific objectives for California higher education are discussed. (Author)

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FINANCING POSTSECONDARY EDUCATION  
STATEMENT TO THE JOINT COMMITTEE  
ON THE MASTER PLAN FOR HIGHER EDUCATION  
OF THE CALIFORNIA LEGISLATURE

April 12, 1972

F. E. Balderston

Paper P-32

July, 1972

## PREFACE

This is one of a continuing series of reports of the Ford Foundation sponsored Research Program in University Administration at the University of California, Berkeley. The guiding purpose of this Program is to undertake quantitative research which will assist university administrators and other individuals seriously concerned with the management of university systems both to understand the basic functions of their complex systems and to utilize effectively the tools of modern management in the allocation of educational resources.

The author presented this paper as testimony to the Joint Committee on the Master Plan of the California Legislature, Assemblyman John Vasconcelles, Chairman. The Committee has a Study Plan as a guide for hearings and testimony, and the Study Plan questions on the finance of higher education are included as an Appendix in this report for the convenience of the reader.

Mr. Chairman, Members of the Joint Committee:

Who is the piper? What is the tune that he who pays him wants to call? Turning the old adage, I will deal with questions of the money for California higher education, but this has to be done with due attention to the predictable influence that money brings with it and the consequences, broadly considered, of the alternatives available to us for financing California's higher educational system.

Just about the only fiscal proposition on which all opinions are united is that higher education is too important to forget about and too costly to leave to the natural devices of the marketplace. All else is controversy.

The basic fiscal alternatives are:

- A. privatize the offering of educational services and the decisions to buy them, leaving entirely to students and their parents and spouses the financing of both educational services via tuition and the cash outlays and implicit costs of investing in an education;
- B. make the offering of educational services a non-governmental function organized and offered entirely by non-profit (and possibly profit-making) corporations, with whatever legislated conditions on the offering of educational services and regulation of educational operations may be needed for broad public policy reasons, with the institutions financed with fees received from students and the students individually receiving financial aid support from tax sources; and
- C. provide tax support for institutional operations and whatever

degree of subsidy to the other costs of attendance may be felt necessary on public policy grounds.

Each of these basic alternatives, pursued to its logical conclusion, would have implications for the numbers of students from each segment of society who would obtain education beyond high school, the mode of operation of educational institutions, the extent of public policy control and responsiveness to perceived public policy needs, and the incidence of cost. In short, the fiscal pattern that should be chosen depends on one's view of what individuals and society seek to accomplish via higher education. It also depends on one's view of the effectiveness with which the goals sought can be served and the risks of something's going wrong.

In the United States, and in California, we actually have a mixture of all three financing patterns and of several modes of organization of educational institutions: private for-profit; private non-profit, and governmentally organized and operated. In fact, it all looks like a fiscal and organizational crazy quilt, and it is tempting to believe that it all ought to be reorganized and straightened up, both fiscally and organizationally.

Most of the students in California go to educational institutions organized and paid for by government, though there is a vital private non-profit sector (some of whose operations are financed by Federal funds and many of whose students receive help via Federal and State aid programs) and, in some vocational areas of postsecondary education, a considerable amount of for-profit proprietary activity. The long tradition in the public sector was to charge the student nothing for the educational services he received but to expect him or her to pay the other costs of attendance.

Nobody has the private non-profit sector under active attack. There is not much attention to the proprietary sector right now. But it is the public sector status quo that is undergoing a series of critiques: right, left and center.

The radical critique is exemplified by Ivan Illich in Deschooling Society. He would dismantle institutional operation of education (all education) and ban the use of all educational certification for jobs or anything else. Why? Because he believes that the very act of institutionalizing the educational process strips it of the needed self-chosen initiative of the student for learning and opens the way to control of society's and the individual's values by wrong forces. His proposed answer is to de-school, privatize, voluntarize, and deformalize, both from the standpoint of the seeker of learning and the provider of it. He does not want education to serve government, which he mistrusts, or the business interest and the labor market, or technology, which he finds evil.

The conservative critique has surprising parallels to Illich. Milton Friedman would also dismantle governmental operation of higher education, though he would be willing to have private organizational initiatives and markets for educational services. He would also approve of de-certifying society in principle (leaving it to the marketplace to determine whether a doctor is a genius or a fraud and whether each individual is fit to do a job for what market-determined wage). And he would on the whole want to leave the question of whether an individual decides to obtain an education strictly to him or her. Ideally, the individual would finance a choice of education (whether obtained for cultural pleasure or to enhance earning power) from personal assets and (to the extent he



chose) borrowing on perfectly operating capital markets. But there is inequality of incomes and assets and there is not a perfect capital market; therefore, Friedman concedes, albeit grudgingly, that governmental assistance may be needed for the capital investment, ideally on a loan basis.

Illich denies that broader social purposes are served by the institutional establishment of education because he believes that society is corrupt and in need of radical Christian reform and the educational establishment helped to make it corrupt and helps to keep it operating that way. Friedman simply denies that education produces benefits beyond those received by the individual and capitalized by the individual in the form of greater current and life-time satisfaction, which the individual receives either as cultural consumption or as income-producing increases of his own productivity.

And then there is the center-liberal critique, which echoes some of the common themes of the conservatives and radicals at times, but for very different reasons. The liberal critique tends to concentrate on these issues:

- A. Hansen and Weisbrod claim that public education is paid for by the poor and that its benefits are obtained by the rich. Thus, far from helping to redress the evil in inequality, they allege, governmentally supported education adds to it. Dr. Joseph Pechman, using Hansen and Weisbrod's own data for California (1964-65), demolished this argument. He showed that the dollars' worth of higher education received by those of lower incomes considerably exceeded the tax dollars received from them that are used for higher education. And this was before the California income tax was made much more steeply progressive in the Reagan

tax program of 1967, which bore down heavily on the middle-upper-income groups.

- B. Hansen and Weisbrod join Friedman in soft-peddling if not quite denying the possibility that social benefits exist over and beyond the individual benefits received by students who attend institutions of higher education. They try to put the burden of proof on those who make the claim for the existence of these "externalities" to show what they are, and how big and valuable they are, before they will admit that public subsidy should be used to buy them.
- C. Other center-liberal thinkers take a very different tack, arguing that the fiscal and organizational status quo fails on both efficiency and opportunity grounds and that fiscal reforms would help it to be reorganized and realigned. Here, two schools of thought go in contradictory directions. One would see the whole system put under more direct obligations of streamlining and systemic control, to eliminate duplications and inefficiencies and produce better response to public (governmentally defined) requirements. The other would see benefit in sharper decentralization and the release of new organizational incentives; this approach often takes the form of proposals for voucher financing, with the selection of the educational alternative or mode left to the parent or the student on the presumption that, at last, educators would be forced in this way to deliver what the customers would want.

## Specific Objectives for California Higher Education, and Their Implications for Finance

As we all know, it is all too easy to get bogged down in abstract philosophizing about education, failing to come to grips with tangible issues. In his testimony to the Select Committee on the Master Plan, President Hitch defined four specific objectives. Each of these has implications for the scale and total cost of the system, for the financing made available to the student, and for the modes of organization of our colleges and universities.

These four objectives are:

1. Universality of Opportunity for Higher Education. This implies that the total capacity for offering educational services be as large as is necessary to respond to all of the positive decisions to attend by all who are qualified for it and who are (a) in the conventional college-going age group (roughly ages 18-24) and (b) of other ages and circumstances but desirous of further education. It also implies that where the opportunity would be empty unless the student who cannot afford to attend but wants to is provided assistance, assistance will be provided.
2. Greatest Possible Diversity. This implies that there is no one "best," or "most efficient" pattern for all students and all programs, but rather that there should be a large array of differing sizes, shapes and styles of campuses and programs. Preserving and enhancing the private institutions of many types and assuring financially that there is wider access to them are contributions to this objective, and I will say more about that later. A spectrum of publicly supported institutions, not a single dominant model, also contributes to this objective.

For a fully adequate degree of diversity, we may have erred too much on the side of large scale in California public higher education, because of the cost savings that are said to come from high minimum size of campus and the general lack of control on maximum campus size.

It is difficult to find a University campus or a State College, or a community college, at which truly small-scale educational experience is available.

If campuses are large, they can contribute to this objective by encouraging and sustaining internal diversity of pattern via experimental colleges and other distinctive modes of organization.

Certain types of budget formulas or budgetary controls tend to inhibit diversity, particularly where they prevent different methods of organizing the educational process. I will have more to say about this in the discussion of budgetary formulas.

3. Maximum Freedom of Student Choice. There are four kinds of constraints now on student choice. First, students may not have adequate information about what is important to them and what their most valid alternatives are. Second, they may not feel they can afford financially to do what they do decide is in their best interest. Third, the standards of eligibility at the undergraduate level don't inhibit the student with a strong academic performance in high school, but the student with a poorer one cannot go immediately to a State College or to the University. Finally, a student may apply to a particular undergraduate program or campus, meet its admission standards, but find that the program or campus has more eligible applicants than places available. In

this event, the student is given opportunity to shift his application to another program or campus.

Whether it would be wise to relax the present minimum eligibility standards for State College and University undergraduate admission is a matter that can be re-examined. In numerous post-baccalaureate program areas, students are constrained now by two additional factors: limitations of enrollment-taking capacity; and higher minimum admission standards than at the undergraduate level. On Page 21 of his testimony to the CCHE Select Committee on the Master Plan, President Hitch said:

"I would recommend that the Committee take the position that higher educational institutions should counsel students about apparent manpower needs and job markets but should otherwise seek to meet informed student demand for curricula except for certain costly and highly specialized professional programs where enrollment limitations may have to be imposed."

We are, however, sensitive to the fact that emergent longer-term manpower needs, even though it is very difficult to estimate them, are a real factor both in what the student needs to know at the time he or she embarks on a long period of study and what the State and the University should consider in connection with the planning of program expansion in some fields.

4. Optimum Flexibility to Meet Change. President Hitch pointed to this as an important objective, ". . . imperative today because of the period of innovations in higher education we find ourselves entering." (Testimony, Page 12)

Tight and highly detailed budgetary standards, together with the weight of resistance from vested interests to new departures in a regime of budget constraint, are very inhibiting to experiments

and innovations. I will return to this issue below in responding to your committee's Study Plan Question IX.

Historically, we have had two broad principles for financing public higher education in California: (a) the State (and, in the case of community colleges, State sharing with local districts) would pay for the institutional costs of offering educational services; and (b) the student would meet the direct and the implicit costs of attendance. In recent years, the former principle has been modified at the University through the adoption of an Educational Fee; this, however, amounts to a very small fraction of the average costs per student year. The latter has also been modified as we sought to meet goals of more complete access to higher education and recognized that there was not true access if the actual financial circumstances of students would effectively prevent many from attending even if the institutional costs were largely or wholly borne from tax sources. Therefore, we stepped up financial aid in the University greatly beyond the levels formerly available. From all sources of funding (Federal and University) total awards were \$48 million in 1970-71. The allocations made from Regents' funds went up from \$2.4 million in 1967-68 to \$10.6 million for the 1971-72 fiscal year; and in the latter year, \$4.7 million of Registration Fees was also used for financial aid.

Other fees and costs of attendance were rising during this period of inflation and fiscal stringency so that it took increases in financial aid to prevent access from worsening, at the same time that we were deeply committed to a net broadening of access. The University has just about reached the limit of its capability to increase these financial aid allocations from Regents' overhead funds and endowment funds, and further funding for improvement of access will be dependent on what is done by

the State and Federal governments.

As you know, The Regents of the University adopted an Educational Fee (or tuition) of approximately \$300 per student year effective with the beginning of the 1969-70 academic year. As matters stand right now, neither community colleges nor the State Colleges in California charge a tuition to California-resident students, though nonresident students pay a very stiff tuition--\$1,500 this year at the University and \$1,100 at the State Colleges, apart from other fees. These additional fees bring the total institutional payments at UC to a bit over \$2,100 per year for a nonresident student.

#### A SUGGESTED PRINCIPLE: NO-TUITION FINANCING

There continues to be controversy about the tuition issue on the Board of Regents. In his testimony to the Select Committee on the Master Plan, President Hitch had this to say about the tuition issue:

"I strongly opposed the sharp increase in educational fees--in effect, the institution of tuition--at the University of California, and when I finally agreed to accept the new fee schedule, it was only because the present fiscal pressures left no alternatives except the even more serious consequences of grave and far-reaching impairment of University quality or denial of University instruction to substantial numbers of students." (Page 16-17)

Your committee is in a position to consider the broad issues of principle that should be controlling on California higher education for the next decade or two. Let me, then, commend to you as my personal recommendation the following principle: that the State should meet, to the extent the Federal government does not, the institutional costs of offering public higher education services and that California public higher education should be tuition free in all types of publicly supported institutions,

for all levels of degrees, and for all ages of students. In cases where there is presently non-State funding now--specifically, local property tax support of a significant portion of community college budgets and tuition revenue from the Educational Fee in the University--implementation of this principle would, of course, require replacement of these other sources of revenue with State funding. This is my answer to Study Plan Question X. My rationale for it is straightforward:

1. Tuition-free offer of education is an excellent base-point for a policy of universal educational opportunity although as I shall show, it is not sufficient to assure access.
2. The Legislature has recently passed, and the Governor signed into law, provisions for legal age of majority at 18, including various rights of contract. Voting rights are now extended to men and women at age 18. This age is roughly coincident with the beginning age of college education for most people. Its logic implies that we look to the young person to make mature decisions at that age. Its logic also implies that the income and assets of parents should not, in principle, be considered relevant in the question of college attendance. At young ages, most people do not have a wide accumulation of the employment skills necessary in a postindustrial society; and if they are to gain postsecondary education, they cannot do more than part-time work. Their own income and assets are in the overwhelming majority of cases severely limited.
3. For those who have stopped education and have gone into the work force and accumulated job experience, and for those women who have been at home rearing children, there is another kind of



educational need at a later time: to redirect career energies, rebuild educationally based skills, or get ready to re-enter employment. One of the most valuable decisions the State could make is to recognize these needs as an explicit responsibility and encourage, not discourage, further education for men and women of mature years.

Thus, I argue that, in contrast to the present policy of the State not to recognize this obligation, it should be shouldered. Even for very highly trained scientists and engineers, rapid changes in Federal R&D budgeting in recent years have caused great anguish and have resulted in the formulation of special, Federally-supported programs to aid this group in the labor force toward retraining and toward redirection of energies. The same dislocating forces exist for many other workers and technicians, and the same need for renewal arises in modern society for many people after an interval of time away from formal education.

4. The Serrano decision has another aspect of its logic: that wealth differences between localities prevent equal elementary and secondary education and therefore deny equal protection of the laws, because education at these levels is financed from property taxes. While the State is grasping the holly bush of school finance, it might as well grasp the nettle of community college finance. The same logic holds, particularly when we declare that we adhere to the principle of universal opportunity for post-secondary education.

Accepting this basic principle, I do not believe that it is wise to have tuition based on costs of instruction, or differential tuition based on differential costs. This is a partial answer to Study Plan Question XI,

but I will deal below with the question of differentials if you insist that there be some tuition.

With the affirmation of this historic principle, for which there were good old reasons and, I believe, some additional good new ones, I answer your Study Plan Question I: the individual student or his parent should not be expected to pay the institutional costs of public higher education. The State should be prepared to pay them, assisted by whatever Federal programs are available. Localities, following Serrano, should not pay the institutional costs of community college operations. The State should accept responsibility for student financial aid in attending public post-secondary institutions wherever lack of student income and assets present a consequential barrier to attendance, with whatever help on this score for financial aid financing can be derived from Federal programs.

At this point, it is also appropriate to consider what the State ought to do about assistance to students attending private institutions and possible institutional aid to private institutions. First, I repeat what I said earlier about the crucial importance of preserving private educational alternatives. There is now ample evidence of the cost-income squeeze on higher education generally throughout the United States. This falls with special force on private institutions which face a large differential between what they must charge in tuition and what is available, both in cost and quality of education, from public institutions that are near them in the market. It falls with still greater force on those institutions that feel special obligation to broaden opportunities of access to them among students from low-income and minority origins.

Private institutions located in California add a great deal to the diversity of higher education here; they lift part of the burden of

supplying educational services from the State budget. Vice President Angus Taylor recently testified to you on those points. One possibility would be to provide direct institutional support to them on a formula or other basis; but I concur with President Hitch that there could be dangers of increased governmental influence which would diminish the distinctive contribution they can and do make if this approach were adopted. Thus, I would favor, instead, a substantial expansion of the State Scholarship and Loan Commission's program to make it possible for students who elect to go to private institutions to have increased assistance for this.

#### AID TO STUDENTS AT PRIVATE INSTITUTIONS

The aid program should be expanded to cover more than the present 3% of high school graduates, and it should be funded more effectively to permit more complete funding of tuition aid grants. In view of the fact that in many private institutions the tuition fees charged do not cover the full cost of instruction and must be supplemented with increasingly limited institutional resources from endowments and current giving, the State should also consider providing a cost of education supplement to the institution receiving a student who is supported with a tuition aid grant. This approach is one of several being considered in the development of new Federal approaches to higher education finance.

## ANALYSIS OF STUDENT LOAN PROGRAMS

Question II of your Study Plan requests comments on the effect of a possible shift of the costs of education from taxpayers to students and their families through loan programs. Numerous proposals have been made along these lines: the Educational Opportunity Bank (often referred to as the "Zaccharias Plan"), which on a limited scale is being tried out by Yale University with the assistance of the Ford Foundation; the proposal by a Governor's Commission in Wisconsin for full-cost tuition in all public institutions, offset by loans repayable over the earning lifetime of the former student; and, in California, various versions of "Learn, Earn and Reimburse," proposed by Assemblyman L. E. Collier and others, which have been considered in recent sessions of the Legislature.

The traditional approach to undergraduate student financial aid administration has long included some use of loans as part of the package for financing the student. The institution where the student expects to enroll first estimates the cost of attendance. This includes tuition and fees, living costs, books, transportation, and incidentals, but this may vary with the student's individual circumstances. If the student is an applicant for financial aid and is dependent on his or her parents, the parents are asked to provide detailed information concerning their income and assets, from which a determination is made of the amount they can reasonably contribute to the cost of education. The student's projected summer earnings (net of summer living costs) are also estimated. The remainder is the student's "need"--to be met by a combination of fee deferments (if the institution's policy permits this)--work/study arrangements during the academic year, loans, and grants-in-aid or (if the student

has qualified) scholarships.

The loan component of these financial aid packages has usually been held to a modest total amount (per year from all loan sources)--\$200 to \$1,000 per year per student. National Defense Student Loans and UC Regents' Loans include provisions for delaying the first payment of interest and amortization until a year after the student has permanently left college. NDSL also includes provisions for forgiveness if the student goes into a teaching career.

The present loan programs--NDSL, loans from institutional funds, Federally-granted loans from banks and other financial institutions--have relatively short amortization periods: ten years, more or less.

This can be so only if the total of borrowed funds is kept small, whether or not there is a subsidized interest rate.

Even as it is, if two young people marry just as they finish college and each of them has a debt averaging \$1,000/year for each of five college years, they will have a total debt of \$10,000. At a greatly subsidized interest rate of 3%, a ten-year \$10,000 loan would have a monthly payment of \$96.56. If the interest rate they pay is 6%--double the subsidized rate and much closer to the market rate--the monthly payment is \$111.02, or just one sixth more.

Very long periods of loan amortization would entail high costs of administration and record-keeping in loan repayment; so it is easy to see why lending agencies prefer to keep the amortization period as short as they can.

One proposed approach to higher-education finance is to set a "full-cost" tuition and then expect that the student will borrow to cover the tuition (and, if necessary, his other costs of attendance), repaying these

borrowings over a "reasonable" amortization period.

I have looked into the economics of this and have attached to this testimony as Appendix A a report entitled "The Repayment Period of Loan-Financed College Education."\* As that report shows, the high school graduate who goes to college will later earn a cumulative income that requires some years to catch up to the cumulative income he would have earned had he gone straight to work after high school. Especially if his education is to be loan-financed, he should apply a discount rate to the future stream of income in order to determine whether he will gain or lose financially by investing in a college education. The larger the debt, the higher the borrowing rate, or the more unclear he is about his chances of success in college and his future income, the more skeptical he will be about the pay-off of a college education. Loan financing cannot fail to have a deterrent effect on college attendance. Furthermore, if he faces a short repayment period, this will concentrate his debt repayment in the early years of his working life, in the years prior to the break-even point of cumulative income. These are also the years of establishing a family and going into debt for housing and consumer durables. Studies of the time pattern of liquid-savings accumulation already show that most families do their net savings when the head of household is between ages 45 and 64--before that are the years of heavy household responsibility, and after that are the years of retirement. Thus, a program based mainly or entirely on loan financing of college attendance would need to be based on a very long amortization period in order to avoid serious deterrent effects on college-going.

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\* Available to the reader as Paper P-15, Ford Foundation Program for Research in University Administration, University of California, Berkeley, 1970.

Students from families with low income and little education are characteristically fearful of debt. They also are likely to feel uncertain about future job and income prospects, and they may very well, in fact, have to forecast a lower earnings profile for themselves if they are Black, Chicano or Native American than if they are white because job discrimination has not by any means been eliminated from American society. Special programs of grants-in-aid, as well as counselling and tutoring, have been found necessary throughout the nation in order to broaden the actual access of low-income and minority students to higher education. Relying on loan financing as the sole or dominant means of providing college education would inevitably mean a reduction in the rate of college attendance by low-income and minority students.

If loan financing were the dominant pattern for college attendance, it would also be necessary to predict a reduced rate of college attendance by women. First, women face lower earnings expectations for given ability than men do because of discrimination in the job markets. Second, many women expect to be out of the job market and rearing children during a good many years of what would otherwise be income-earning years, and the interval of child-rearing is typically concentrated, for college-educated women, in the years from age twenty-five to age forty or forty-five. Recognizing this, Assemblyman L. E. Collier and other California proponents of "Learn, Earn and Reimburse" loan financing of full-cost tuition education have amended earlier proposals so that the debt liability of women would be deferred or forgiven if home and child-rearing responsibilities take them out of the labor market.

For all students, male and female and of whatever income and educational background, the choice of a career is accompanied by uncertainties

about future income from each career alternative. An earlier objection against the Collier Plan was that it would increase the penalty of choosing a socially worthwhile but economically unrewarding career. I serve on the U.S. Department of Labor's Subcommittee on Professional, Scientific and Technical Manpower, and this committee has recently reviewed the dislocations and disappointments of scientists and engineers who, by and large, were trying to steer themselves toward high-income occupations but found recent Federal and corporate R&D cutbacks had dried up many job opportunities they had counted on.

To relieve this hazard, some proponents of loan-financed college education have suggested that each former student pay back some given percentage of his later income--a large number of dollars if that income is high, and a small number if that income is low--so that the student's risk will be averaged over low as well as high incomes. In California, where about eighty percent of high school graduates go on to at least some postsecondary education, the overwhelming majority of them are in publicly supported institutions. Nearly all of them stay in California after completing their education. Thus, we already have an approximation of this sort of risk-averaging. It is called the State income tax, and it is, in fact, much more steeply progressive now since the Tax Program of 1967 than it was as of the period 1964-65 for which Hansen and Weisbrod made their estimates of the incidence of costs and benefits from California public higher education.

California, as a state, will lose the future tax flow-back from students whose education it finances if they leave California after receiving such education. For many years, of course, California has imported large numbers of people whose higher education was obtained elsewhere,



often at public expense. I have never heard California legislators express alarm about this.

There is one issue of inequity which the recovery of tax revenues from the future incomes of the educated person in California does not relieve: this is the case of the person who does not obtain a share of publicly supported higher education but nevertheless pays later taxes on a high California income. I frankly doubt whether it is worth it to move to an entirely different framework of financing for public higher education in order to redress this admitted inequity. It becomes a significant inequity, in dollars, only if someone who has not benefited from public higher education has a high taxable income in California at a later time. I have already suggested that it would be a very desirable step, for other reasons, to increase substantially the financial assistance provided through the State Scholarship and Loan Commission to students who choose to attend California's private colleges or universities. To the extent that this is done, the relative inequity will be significantly reduced.

This discussion has, I hope, substantially answered Question II, A., B., and C. and Question III of the Committee's Study Plan and has elaborated further my answers to Questions I, VIII, and X.

California now receives the greatest amount of Federal assistance in higher education financing for two purposes: the broadening of access through Federally assisted programs for work/study, loans, and grants; and, at the other end of the spectrum, substantial Federal financing of university research and graduate education, without which it would not be possible, for example, for the University of California or Stanford to function as they do in doctoral and graduate professional education.

The latest Federal move in the latter direction is embodied in proposals which have now passed most of the hurdles in Congress for substantial cost-of-education grants to medical schools on a per-student basis. When and as this new Federal approach becomes fully funded, it will be of great help to California in financing the operating costs of expanded educational programs in the health professions.

We can especially welcome this because a great part of the increased need for health professionals is traceable to expanded Federal programs of health care financing and because doctors and dentists are quite clearly a national as well as a state resource and are mobile in their choices of where to settle at the time they finish education for the degree.

Yet, as a general principle, it would not be to California's fiscal advantage to shift the burdens of higher education finance to the Federal level. The reason is that California is a high-income state; it will bear more than a proportionate share of expanded Federal programs. The California tax structure, also, is partly subsidized at the Federal level; for example, the increase in California personal income tax revenue from the 1966 taxable year to the 1967 taxable year was \$469 million, as a result of the increase in the State income tax and of its being made more highly progressive than before. Of this \$469 million total, my calculations show that approximately one third was offset by lower Federal tax liability of California taxpayers.

## VOUCHER PLANS

I now turn to Study Plan Question VIII which raises the question of using vouchers. Because there are many possible meanings of voucher systems, I had better give my definition. By a voucher system for higher education, I mean a plan which permits the individual student to choose what institution to attend and what program to choose within that institution, subject to the rules of eligibility for that institution and program, and which then provides that the institution will be reimbursed by the voucher-providing agency for all or part of its costs of having the student and the student to be reimbursed by the voucher-providing agency for all or part of his other costs of attendance.

The G.I. Bill, after World War II, followed these outlines. It was a classic voucher system. It had enormous social impact on a whole generation of American society. In the administration of the G.I. Bill, the Federal government had to set statutory standards and make decisions (a) whether the prospective student qualified at all for the G.I. Bill-- that is, was he or she a legally defined veteran; (b) whether the program the veteran proposed to enroll in was a bona fide program of education and whether the costs the Federal government would be charged by the institution were appropriate to pay; and (c) what other costs of attendance the student could get reimbursement for. Once the student was in a program, the administrators had to determine how long these rights to claim payment lasted, both to the institution and to the student; and there were questions of the amount of G.I. Bill eligibility the individual had, how much he had already used up, and whether he was still enrolled in a qualifiable program.

I now want to discuss California's present higher education system in the context of these aspects of a voucher system.

Much of the earlier discussion is pertinent for this. First, as to the question of adequate access to postsecondary education, the California student's financial burden of attendance is now relieved of concern about institutional costs if he attends a community college or a campus of the California State University and Colleges. If he or she attends the University of California, the Educational Fee operates as a financial barrier, but fee deferral (in effect, a loan) is permitted upon application and demonstration of need. I suggested earlier that expanded State aid be provided to help students meet the cost of tuition if they attend private colleges or universities in California. Thus, the student's burden of institutional costs would be no greater, with our present system and my recommended improvements for it, than it would be in a voucher system.

The second question, then, is that of differing eligibility and enrollment-taking capacity standards in publicly supported systems and individual campuses. The enrollment-taking capacity of a campus (or of a program within a campus) depends on the availability of staff and facilities. The question of eligibility standards for undergraduate admission is a public policy question, and it bears most acutely on the opportunity of the high school graduate to choose to attend a State College or University campus for lower-division work if he or she could not now qualify to do so. We have experimented, successfully, I believe, with exception admissions for students under the "2% plus 2%" plan approved three years ago by the Coordinating Council. The chief effect of a voucher system at the undergraduate level, accompanied by abandonment of specific

eligibility standards by the State Colleges and the University, would be to increase the numbers of academically less qualified students choosing these two segments at the lower-division level. How many of these there would be I do not know, but it would probably be wise to increase the amount and quality of counselling considerably if this were done, in order to avoid mistaken choices by students who then would experience academic difficulties.

For graduate professional and academic education, California's State Colleges and University campuses have long had to ration places among applicants. The expected standards of academic performance in the graduate professions and in doctoral programs are quite high. If students could use vouchers on their own option, and without reference to eligibility standards and capacity limitations, to decide whether to go on to graduate study and to what program, we would surely find it necessary to expand some graduate areas very substantially, and we can also predict that the rates of attrition in graduate study would be considerably higher than they are now.

Advocates of voucher systems often claim two special merits for this approach. One is the increase in student influence on program expansion and on the content of academic programs when students affect the size of programs and institutions through their choices. This now happens, to an approximation, through workload budgeting between segments of public higher education and within segments and campuses. As far as student power or influence in academic affairs is concerned, we can point to a good many changes in public institutions toward increasing student participation in decision making, and these changes are pretty much independent of the mode of financing.

Another claim made by voucher proponents is that vouchers would lead to an efficient market for educational services, putting more pressure on each institution to attract students and do well by them, and giving new opportunity to start educational institutions organized along different lines than before. We have had the experience of developing three new campuses of the University of California in the past decade. These new campuses--at San Diego, Irvine, and Santa Cruz--developed along different lines from one another and along different lines from the previously well-established campuses of the University. As we know, an infant campus is much more expensive per student than a mature one. The total elapsed time to bring these campuses to viable (though not mature) size was far less than has usually been the case in the formation of new private institutions. The acceptance in terms of student enrollment demand and in terms of academic standards and accreditation has been high. Could a voucher scheme have improved on this record? I doubt it.

It takes great organizing effort and skill--and a large, risky start-up investment--to get a new institution started. A voucher system, unless accompanied by commitments for this start-up investment, would fail to stimulate new institutions. A voucher-approving agency would find itself having to decide whether and how to approve and finance these start-up investments in new institutions if they were to be encouraged: in short, it would have to engage in chartering and capital funding.

Also, the voucher-approving agency would have to decide whether to approve students' use of vouchers for the educational programs offered by new institutions. It would either have to rely on the present accreditation machinery or set up accreditation procedures of its own.

To set in motion a new design for education also requires a good new

idea, one which effectively anticipates what will be worthwhile to students and to society on a long-term basis. The most striking form of innovation is the occasional formation of a whole new institution or campus according to a new concept of the dimensional features of education. Either in new or existing institutions, there can also be new or revised curricula, and we see all the time a most important incremental form of innovation via updating of courses, new courses, and experiments with teaching approaches; these are fostered if the faculty and administration are imaginative and if there is a margin of energy and resources available for changes and improvements.

Whether a voucher system would be truly hospitable to change would depend partly on whether it was generous enough to provide this resource margin.

There is also another issue: for what kinds of innovation would student choices via vouchers be an important stimulus? Students are often now involved in highly constructive ways in the modification of curricula and courses. In general, however, major new fields and topics of study have developed from breakthroughs in scholarly research and new perceptions of how to organize training for the professions, not from swings in student attention-focus.

A voucher system might have one very significant advantage from the standpoint of the existing public institutions in California. If enacted by the Legislature with provisions for full financing of the institutional cost of educating each student, depending on where he chose to go and to what program, it would increase the independence of institutions, their administration and faculty, and it would decrease the hazards of bureaucratic management of higher education budgets and of political intervention.

Some formula of State payment to each institution, by level of student or by program, would be needed.

In this respect, a voucher system would have considerable similarity to a formula budgeting scheme under the current institutional structure.

### A FORMULA BUDGET FOR HIGHER EDUCATION

I therefore turn to Study Plan Question IV, which asks about the desirability of formula budgeting. President Hitch pointed out that public higher education in California faces the great fiscal disability at present that many other State programs are formula-based and the State Colleges and the University are not. This means that the higher education part of the General Fund budget is one major focus of State fiscal pressure.

We know that costs per student year in the various types of postsecondary programs vary tremendously both in public and private institutions. Laboratory science, engineering, and many technical-vocational programs have high equipment, support, and space costs per student as compared with humanities and social science programs. Advanced programs, and programs in all fields and at all levels having small enrollment, tend to have high costs. But to achieve the important goal of simplicity in fiscal relations, a single formula might be devised for the enrollment-related costs of all public higher education.

As an illustration, a simple formula budget for operations (not for capital) might allocate to each segment \$1,000 to \$1,200 for each lower-division FTE student, \$1,800 to \$2,200 for each upper-division and Master's degree student; and \$2,800 to \$3,200 for each graduate student in the graduate professions and advanced doctoral programs. These might be



plausible ranges, but actual determination would depend on detailed program costing studies. These ranges, also, would not cover the especially expensive programs in the health professions.

If such a formula were adopted, it would be necessary to update it periodically to deal with cost inflation. The formula, also, would not cover research and public-service responsibilities of the public institutions, including those portions of library, computer services, general administration and auxiliary services which for extramurally funded research are now reimbursed through indirect cost recovery. Separate budgets would therefore be needed for these.

A formula of this kind would simplify fiscal relations between the public institutions of higher education and the State. It would throw more completely on the institutions the choices of what programs to push and which to cut back. It would be based on FTE enrollment. In this sense, it would not be a great change from the present conceptual foundations of the operating budgets for public higher education, which are mostly enrollment-based.

A more dramatic change in the situation would come about if a new budgetary approach were to emphasize the quality and quantity of educational results, rather than enrollment. The enrollment-based approach reflects the amount of educational exposure that is made available, but it ignores questions of quality, questions of educational "value-added" (for example, the very great educational accomplishment of helping a student who had been poorly qualified in conventional terms to do well in his education), and questions of program completion and attrition. Providing access--the opportunity to try--is one essential public goal. Seeking to stimulate the amount and the quality of educational results,

which we do not now do through our educational budgeting at any level, is a difficult task, but one that would be worth considering seriously.

When a student successfully completes a program--whether it is for a certificate in a technical-vocational program, or an AA, BA, MA, JD, or PhD--he has accomplished something qualitatively different from what he has if he has simply served some time in an (educational) institution. He thinks so, and the world of work thinks so, and they are both right.

It would be necessary to put into effect some external validation of the quality of the program and the student's work--for example, through standardized achievement tests at each level of degree or certificate--if this approach were followed. Otherwise, there might be temptations to let achievement standards slip in order to get more students through. But as a general principle, I believe that an orientation of educational budgeting to educational results would bring about new and refreshing attention to the reform of program requirements that are not really, in some cases, defensible, and it would focus new attention on the improvement of teaching and new attention to the prevention of drop-out in public higher education. (In pointing to the problems of attrition, I do not oppose periods of temporary "stop-out" for work experience or public service; on the contrary, I agree with the position of the Carnegie Commission that these may be productive of mature insight for the student.) Let me emphasize that I suggest this approach for all parts of public higher education and on the basis that the improvement of the student's achievement and his absolute attainment are both important objectives.

In order to move toward the approach of educational budgeting for educational results, it would be necessary to deal in much more detail than I am able to here with a number of practical problems. For example,

students in considerable numbers transfer from one campus or segment to another. It would therefore be necessary to adjust the budget entitlements of the transfer-losing campus or segment upward, to reflect the fact that the departing student was not really "lost" to education, and to adjust downward the entitlement of the transfer-receiving institution to reflect the fact that transfers received had already acquired part of their degree-program elsewhere.

#### HOW MUCH FOR HIGHER EDUCATION?

Your committee's Study Plan asks questions about the amount of the State's resources that should be allocated to public higher education and the apportioning of this total to each segment in the present structure. The first of these is a very deep political question. My personal answer to it, as you have seen, is that society generally and California in particular benefit enormously, and not only in economic terms, by the educational stimulus that our people of all ages can receive. I therefore would give personal preference to a considerable expansion of State support to postsecondary educational functions which it has not been the State's policy to underwrite, and I also believe that acceptance of a greater State role in the financing of the community colleges and of access to private colleges and universities in California would be desirable. But in suggesting that you consider these additional financing burdens, which would require additional State revenue of several hundred million dollars per year, I am mindful of the fact that these are my policy preferences and not necessarily those of the University, as an institution, or of the State's political leadership in either party.

Thank you very much for this opportunity to present views on the financing of California's most uniquely attractive resource: its system of postsecondary education.

## APPENDIX

## QUESTIONS ADDRESSED BY JOINT COMMITTEE ON THE MASTER PLAN

## FINANCING

- I. How should financial responsibility for postsecondary education be allocated? What portion should the state pay? The student? Parents? The local community? Others who benefit from postsecondary education?
- II. If we are on the verge of a fundamental change in the method of financing higher education--a shift of costs from taxpayers and families to students through loan programs, then:
  - A. What effect will there be on the college aspirations of low-income students? Will a massive debt seem so formidable that there will be fewer minority and low-income students aspiring to undertake a college education?
  - B. Because of the size of student debt, will students tend to terminate their education at a point earlier than would otherwise be the case? Will they either fail to graduate or perhaps fail to attend graduate school because of concern over additional debt?
  - C. Will there be changes in college careers? Will students tend to shy away from majors where the economic potential is smaller because of debt obligations?
- III. If equality of access is a goal, what kinds of financial aid programs are needed?
- IV. How should postsecondary education's portion of state funds be determined?
  - A. Would statutory budgeting formulas, such as those utilized for funding some state governmental functions, provide a more efficient and/or equitable basis for funding higher education?
- V. How can the executive and legislative branches fulfill their responsibilities for effective allocation and use of resources without making educational policy which would be best left to governing boards, educators, and/or students?
  - A. What changes, if any, should be made in budgeting procedures?

- VI. Given our existing structure, how can we determine each segment's fair share of the resources? To what extent should it be based upon cost-per-student data?
- VII. Should explicit priorities for funding be set? If so, what criteria should be used?
- VIII. Should direct state support go to institutions? To students? To both? What are the advantages and disadvantages of vouchers?
- IX. How can postsecondary education be funded in such a way as to encourage innovative approaches and efforts to increase efficiency and effectiveness?
- X. Should the state provide tuition-free postsecondary education as well as tuition-free primary and secondary education?
- XI. If tuition is charged in public institutions, should there be a differentiation based upon costs of the program in which a student is enrolled?
  - A. How should tuition revenues be utilized?
  - B. Should fees be adjusted to regulate demand for some types of education?
- XII. If alternative forms of postsecondary education are developed, how should they be financed?
- XIII. Would it be desirable and/or feasible to encourage business and labor to assume some responsibility for continuing education and retraining through tax incentives to employers and employees?

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