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AUTHOR Frueh, Lloyd, II; Treacy, John J.

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ABSTRACT

This document details the effects of various state programs and proposals which seek to aid the private schools including contracting by the Ohio Board of Regents for instructional services with private institutions, grants for capital improvements and special services, direct payments to students and long-term loans to students to recover subsidies given by the state to public institutions. Population and participation data provides evidence that the Regents have grossly overestimated Ohio higher education enrollment and that 2-year colleges and technical schools will replace urban 4-year universities as the fastest growing by 1975. Private schools must move from the declining appeal of religious differentiation to flexible or more innovative programs, small size, and faculty-student relationships. Research in financing higher education is needed not only in the area of cost but also regarding price, income and cross elasticities among various socio-economic groups. (Author/MJM)

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"Will Ohio Always Have An Antioch, . . . Rio Grande, . . . Wilberforce, . . . Xavier?"

Private Schools and Public Policy in Higher Education in Ohio

Lloyd Frueh, II and John J. Treacy

Department of Economics
Wright State University

Presented at the April 2, 1972 meeting of the Ohio Conference of Economists and Political Scientists, Ohio University, Athens, Ohio.

ABSTRACT

An examination of Ohio private higher education in the perspective of its historical development, competition with state-assisted universities, and Ohio public policy. Private schools, which have heretofore competed with the low tuition, state-assisted universities by offering a differentiated product, are becoming less able to survive. Data from two universities competing in the same urban envrionment for commuting students, one private and one public, is evidence that private schools face an increasingly uncertain future. The authors detail the effects of various state programs and proposals which seek to aid the private schools including contracting by the Board of Regents for instructional services with private institutions, grants for capital improvements and special services, direct payments to students and long-term loans to students to recover subsidies given by the state to public institutions. Population and participation data provides evidence that the Regents have grossly overestimated Ohio higher education enrollment and that two year colleges and technical schools will replace urban four year universities as the fastest growing by 1975. Private schools, if they are even to survive, must move from the declining appeal of religious differentiation to flexible or more innovative programs, small size, new

faculty/student relationships, etc. Research in financing higher education is needed not only in the area of cost but also on price, income and cross elasticities among various socioeconomic groups.

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WILL OHIO ALWAYS HAVE AN ANTIOCH..., RIO GRANDE..., WILBERFORCE..., XAVIER?

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Lloyd W. Frueh, II and John J. Treacy

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April 7, 1972

I. Introduction

The seemingly frivolous title question is actually a serious one since the schools mentioned are private colleges in Ohio that are facing a situation which one writer has termed, The New Depression in Higher Education [2]. Although private colleges in Ohio, charging considerably higher tuitions, must compete with state assisted schools in the market for educational services, their ability to offer a differentiated product has permitted them to survive. Titles of schools mentioned suggest some of the diversity: Antioch--non-sectarian, high tuition, elitist; Rio Grande--sectarian, modest tuition, rural location; Wilberforce--sectarian, mostly black, rural location; and, Xavier--Catholic, urban, offering some graduate programs. Recently, however, the ability of private schools to survive in the face of state subsidized competition seems to be diminishing.

The role of private colleges has been high on the list of major items considered by the Ohio Board of Regents and the following is a statement of the Regents' Master Plan 1971 recommendations [10, p. 14]:

> 1. Privately sponsored and accredited colleges and universities should continue to perform their important educational services for the benefit of citizens of Ohio, the region, and the nation. A doubling of the enrollment in the private sector of higher education in Ohio during the decade of the 1970's is a desirable objective. The alternative to privately sponsored higher education with its operating support derived primarily from student charges and philanthropic giving is an ever larger enrollment in public institutions and a larger burden upon the taxpayers of Ohio.

While it is possible to view the Master Plan objectives as a statement of what the Board of Regents conceives the state needing in the way of higher education, goals and objectives of private schools are much harder to assess and organize. Most of the Ohio private colleges came into being during the "denominational era" of U.S. history. The diversity of religious denominations led each sect to try to establish its own college in the state [12, p. 9]. Over the years, the importance of religious differentiation has diminished for some schools, and all schools have built groups of clients that differ among themselves as well as from state university users. The viability of private schools in the future will depend heavily upon their ability to meet changing clientel needs and upon the type and quantity of governmental assistance they receive.

This study will 1) examine some of the changes which took place in Ohio higher education in the past two decades; 2) examine the impact of new and proposed state programs; and, 3) give conclusions and suggest further research needs.

II. Higher Education in Ohio, 1951-1970

During the decade of the fifties enrollments in all Ohio colleges and universities grew by over 45 percent. This growth figure was considerably below the growth rate of 70 percent for the nation as a whole. Table I shows an almost even breakdown in enrollment between private and public schools at the beginning of the period. By 1960, there was a slight slippage between public and private shares in enrollment, but both groups of schools entered the sixties on a modest burst of growth.

In the period between 1961 and 1967 the national enrollment jumped by 85 percent while the Ohio numbers increased at a slower rate of 69 percent. This still represented a period of explosive growth for the Ohio schools. During this period, the relative shares between public and private schools changed significantly to a 70%-30% split from a 55%-45% split in 1960. Perhaps even more ominous was the decline in absolute enrollment experienced by the private sector

TABLE I

STUDENT ENROLLMENT IN OHIO, FALL HEAD COUNTS
1951-1970

Year	Total United States	Total Ohio		Ohio Private		Ohio Public	
1951	2,116,000	119,351	100%	58,103	48.7%	61,248	51.3%
1952	2,148,000	114,019	100%	53,177	46.6%	60,842	53.4%
1953	2,251,000	115,429	100%	52,333	45.3%	63,096	54.7%
1954	2,469,000	122,504	100%	55,275	45.1%	67,229	54.9%
1955	2,679,000	132,110	100%	59,427	45.0%	72,683	55.0%
1956	2,947,000	142,873	100%	64,085	44.9%	78,698	55.1%
1957	3,068,000	148,782	100%	66,809	44.9%	81,973	55.1%
1958	3,259,000	156,633	100%	71,019	45.3%	85,614	54.7%
1959	3,402,000	164,879	100%	74,806	45.4%	90,073	54.6%
1960	3,610,000	175,011	100%	79,034	45.2%	95,977	54.8%
1961	3,891,000	187,792	100%	82,719	44.0%	105,073	56.0%
1962	4,207,000	202,228	100%	87,071	43.0%	115,157	56.9%
1963	4,800,332	221,973	100%	93,491	42.1%	128,482	57.9%
1964	5,320,000	247,948	100%	99,541	40.1%	148,407	59.9%
1965	5,967,411	275,773	100%	101,841	36.9%	173,932	63.1%
1966	6,438,477	292,833	100%	105,274	36.0%	187,559	64.0%
1967	6,963,687	317,547	100%	95,727	30.2%	221,820	69.8%
1968	(N.A.)	338,053	100%	97,546	28.9%	240,507	71.1%
1969	(N.A.)	360,037	100%	94,505	26.2%	265,532	73.8%
1970	(N.A.)	373,422	100%	94,062	25.2%	279,360	74.8%

SOURCE: Ohio Board of Regents, Ohio Basic Data Series Higher Education (Columbus, Ohio, 1969) p. 11 and personal communication.

in 1967, 1969 and 1970. Table II gives a detailed breakdown of changes occurring in the state assisted sector.

Beginning in 1963, the state of Ohio began an expansion in the variety and location of institutions of higher education. The number, and more importantly the capacity, of branches of four-year institutions was expanded. For the first time Ohio started financing two-year institutions and their FTE enrollment grew from 1,100 in 1963 to over 13,000 in 1968. Three existing city universities were added to the state system in 1963 and they subsequently expanded rapidly with the help of state financing. In 1965, two new commuter universities were founded in major cities and they have shown extremely rapid growth. The year 1967 saw an additional existing city university added to the state system. The increase in total state supported FTE's was over 120 percent from 1963 to 1968.

One example of the problems stemming from increased competition between state and private schools can be seen in Table III, which details the enrollments and annual fees for the University of Dayton and Wright State University. Although U.D. enrollment continued to rise after the establishment of Wright State, the rate of increase dropped. The entrance of the lower-priced public school into the Dayton area commuter-student market came at a time of rapid increases in the college student cohort population, and both schools shared in this rapidly expanding market. But as Wright State developed and matured, U.D. ceased to grow and started to decline in enrollment while W.S.U. continued to grow. Because tuition changes are sometimes not announced until late spring or summer and because their primary effect is upon those planning to enter college in the following year, the impact on enrollments probably comes with a variable lag

TABLE II

STATE-SUPPORTED OHIO HIGHER EDUCATIONAL INSTITUTIONS

Date	No. of 4-year institutions	No. of 2-year institutions	No. of branches	FTE* Enrollment at 4-yr. institutions	%	FTE* Enrollment at 2-yr. institutions	%	FTE* Enrollment at branches	%	Total FTE* Enrollment
1951	6	--	NA	40,301	NA	--	NA	NA	NA	40,301
1952	6	--	NA	39,470	NA	--	NA	NA	NA	39,470
1953	6	--	NA	41,794	NA	--	NA	NA	NA	41,794
1954	6	--	NA	44,154	NA	--	NA	NA	NA	44,154
1955	6	--	NA	48,336	NA	--	NA	NA	NA	48,336
1956	6	--	NA	51,264	NA	--	NA	NA	NA	51,264
1957	6	--	NA	52,341	NA	--	NA	NA	NA	52,341
1958	6	--	22	53,838	NA	--	NA	NA	NA	53,838
1959	6	--	25	57,897	NA	--	NA	NA	NA	57,897
1960	6	--	26	62,033	NA	--	NA	NA	NA	62,033
1961	6	--	28	67,960	NA	--	NA	NA	NA	67,960
1962	6	--	30	73,444	NA	--	NA	NA	NA	73,444
1963	9**	1	32	85,509**	95	1,100	1.2	3288	3.7	89,897
1964	9	2	33	99,102	93.1	2,990	2.8	4206	4.0	106,352
1965	11	2	33	115,828	88.9	6,280	4.8	9367	7.1	131,484
1966	11	3	32	129,464	86.0	9,064	6.0	11714	7.9	150,242
1967	12***	7	32	160,611	87.0	10,659	5.9	13063	7.1	184,333
1968	12	8	32	175,282	86.0	13,162	6.5	15117	7.4	203,566

SOURCE: Ohio Board of Regents, Ohio Basic Data Series Higher Education, Columbus, Ohio, 1969, p. 16.

* FTE is full time equivalent enrollment and is computed by dividing total student hours taken by the number of hours considered to be a full-time load. It is normally a smaller number than a head count--especially if there are large numbers of part-time students.

** Beginning in 1963, three city universities became state supported. These three account for 7,114 of the 1963 increase of 12,068 FTE's.

*** Beginning in 1967 an additional city university became state supported and added 10,785 of 31,147 increase in FTE's in 1967.

TABLE III

FULL-TIME EQUIVALENT (FTE) ENROLLMENTS AND ANNUAL TUITION AND FEES FOR THE UNIVERSITY OF DAYTON AND WRIGHT STATE UNIVERSITY

Fall Of	University of Dayton		Wright State		Ratio of U.D./W.S.U. Tuition & Fees
	FTE	Tuition & Fees	FTE	Tuition & Fees	
1962	5683	590			
1963	6168	680			
1964	7030	680			
1965	7487	680	2761	420	1.62
1966	8310	1050	2910	490	2.14
1967	8599	1050	3536	490	2.14
1968	8685	1300	4584	489	2.65
1969	8460	1500	5547	540	2.78
1970	7917	1700	6631	570	2.98
1971	7499	1700	7468	720	2.36

Source: Office of Registrar, University of Dayton, Personal Communication; Office of Institutional Research, Wright State University, Personal Communication.

distributed over three or four years. But it is clear that whatever other factors were at work, the considerably lower price of W.S.U. was a major factor enabling them to capture a steadily increasing share of the local market for higher education.

William G. Bowen noted that in the period between 1928 and 1956 the ratio of private to public school tuition, fees, and room and board ranged from 1.56 to 1.65. After that time, the gulf started to widen so that by 1966 it was 2.07 [1, p. 51]. The ratio for fall 1970 in Ohio was only 1.59 so that the drop in private school enrollments cannot be attributed to a large price difference in tuition and fees alone [3]. Location evidently plays a large role in the process. A rural location may cause the students to bear a higher opportunity cost in terms of foregone use of home-provided housing and foregone income from part or full-time employment which is more easily obtained in an urban labor market.

In Table IV, the ratio for private to public tuition alone shows a constant ratio of tuition for 1965 and 1969, a period during which private enrollment dropped mildly in absolute terms and sharply relative to public enrollment. Explanations for this may be that the increased tuition of private schools put them in a more price elastic range of their demand function than the corresponding price increases did for the state supported schools and the opening of new state supported universities like Cleveland State University and Wright State University in major population areas provided public commuter colleges which effectively lowered the total cost of education to many students.

Before summarizing, we might also note two additional facts about Ohio higher education: 1) Ohio had a lower than U.S. average

TABLE IV

OHIO PUBLIC AND PRIVATE AVERAGE TUITION AND FEES - SELECTED YEARS

	1960-61	1965-66	1969-70
Private	$748	$1,095	$1,559
Public	320	420	600
Ratio	2.3	2.6	2.6

SOURCE: The Association of Independent Colleges and Universities, Toward an Effective Utilization of Independent Colleges and Universities by the State of Ohio (Columbus, Ohio, 1971) p. 38 and Ohio Board of Regents, Ohio Basic Data Series Higher Education (Columbus, Ohio, 1969) p. 28.

enrollment in public colleges and universities; and 2) the same held true for private colleges. This fact is evident in Table V.

TABLE V

OPENING FALL ENROLLMENT IN INSTITUTIONS OF HIGHER EDUCATION PER 1,000 POPULATION, OHIO AND PEER GROUPS, 1969

	Public	Private	Total
Ohio	24.4	8.8	33.2
Other Big Ten States	30.1	9.6	39.7
U.S. Average	28.9	10.0	38.9
Ohio Enrollment as Percent of U.S.	4.51%	4.69%	4.56%
Ohio Population as Percent of U.S.			5.34%

SOURCE: Edric Weld, Jr. and John Burke, Jr., The Financing of Higher Education by the State of Ohio, 1955-1969. Cleveland: Cleveland State University, Working Paper in Economics, No. 16, (1971) p. 23.

It must be noted, however, that the Ohio output of bachelor degrees comes close to the U.S. averages suggesting two possibilities: 1) Ohio schools are more successful in selecting, training and graduating students who do enroll and 2) that the percentage of graduate students in Ohio schools may be smaller than in other Big Ten states [16, p. 22]. A partial explanation for this situation may also be the relatively high tuition and fee structure that prevailed in Ohio public institutions. Comparisons with other Big Ten states for the four years, 1966-69, shows only one instance (Indiana, 1969) where other Big Ten states had higher tuition and fees [16, p. 83]. But fragmentary data from 1970 and 1971 indicate that Ohio charges are no longer out of line with other Big Ten states.

Obviously, the policy makers in Ohio have had a difficult task in front of them. They were called upon to rapidly expand the number of places available for students while still maintaining a viable private sector. In the next section, we will examine proposed or adopted policies that are supposed to respond to the plight of over-capacity and high prices existing in the private colleges.

III. Policy Proposals

Since the 1971 Master Plan projects a 1980 enrollment of 450,000 students in public institutions and hopes for a doubling of private enrollments, it is evident that the planners would like to reverse the decline in the private share of the market and raise their share back to 30 percent of total enrollment [10, p. 15]. The Association of Ohio Independent Colleges and Universities is on record as supporting the plan which calls for state aid in a variety of ways [9]. Board of Regents proposals might be classified as: 1) aid payments made directly to students which could then be spent with either public or private schools; 2) aid paid directly to institutions on some formula to cover operating expenses; 3) capital expenditure aids for high cost facilities that the private schools are having difficulty providing from their current budgets. All were designed to make political aid as palatable as possible for the state legislature convened in 1971, which was facing the hard issue of having to come up with new revenue sources for current, as well as proposed, new spending programs. Governor John Gilligan opened up the sweepstakes still more by proposing a package of solutions to problems of higher education that was labeled the "Ohio Plan." In this section we will consider the Board of Regents' proposals, the "Ohio Plan" and the Ohio Instructional Grants Program.

1. Contracts for Instructional Services. Proposed by the Board of Regents in House Bill No. 531, this program would have authorized the Ohio Board of Regents to enter into a contract with accredited privately sponsored colleges and universities which would accept transfers from two-year institutions. The student would be charged a tuition comparable to those of publicly supported universities and the school which accepted him would be paid an amount equal to the state subsidy. Since the bill forbids a contract for students in sectarian religion programs, it hopefully would permit the state to contract with denominational schools without running into constitutional difficulty.

Such a contractual arrangement might have been chosen on the basis that it is more politically salable than use of other methods such as block grants to individual institutions, operating grants, or direct grants to students who might choose to spend them at publicly supported institutions. Institutions might find problems resulting from such a two-price system if some of their students who might have enrolled at the lower division level shift to junior colleges, content with the idea that they can later attend the private college of their choice at a more favorable price for the last two years. Like defense contractors, the private schools are going to find that they will initially have to supply increasing amounts of data to the Board of Regents, and it might well become an academic question in a short while whether they are public or private.

The question that can be posed is what function does a private school fill that a public one does not? Ohio's private schools would claim that they foster diversity and experimentation not found in the state system. But a close examination of the state system would exhibit some diversity such as a mostly black college, Central State University, the Agricultural School at Ohio State University, the strong liberal arts orientation of Miami University, and the handicapped student program at Wright State University. If diversity is a desirable trait in higher education, it might be cultivated within the state system at cheaper prices.

This bill has not passed the houses, probably due to the mixed support it drew from the private schools in the state. Many of the private schools with excess capacity in the form of unfilled places would view this plan as allowing them to generate some revenue without adding to costs. Those schools that are hurting financially but who have full complements did not view this scheme as holding out much help for them.

2. <u>Capital Improvements</u>. The Board of Regents has also requested permission to amend Chapter 3377 of the Ohio Revised Code which established the Ohio Higher Educational Facility Commission. At the present, this commission is concerned with allocating federal grant money for capital construction, mostly for dorms. In the general amendment the Regents call for authority to build and rent capital structures for private schools [9, p. 5]. This program has not aroused any enthusiasm among those private schools that already have excess capacity.

There is also some question of what grounds the Regents would use to enter into such a rental contract and always lurking at the back of this scene is the question of state aid to church related schools. Questions have been raised as to what the state would do if it found itself without a tenant in a highly specialized building, and it is doubtful that private schools will be likely to add capacity in a situation where they are facing increased price competition from the public sector. No affirmative action has been taken by the legislature on this proposal.

3. Special Operating Grants. These devices provide funds that are earmarked for special uses such as library. The Board of Regents has requested authority to set up a program that would permanently loan each private school $50 worth of books for each full-time student each year [9, p. 5]. This type of grant will not be spurned by the needy, but creates problems in that earmarked aid may be helping those areas which are least in need of improvement. In some cases, additional funds might free institutional funds to be allocated for other uses, but in general this type of aid is likely to lead to poor resource allocation. Unrestricted grants would be better if they could avoid the church-state problem.

4. The Ohio Plan. Although its novelty won it nationwide publicity, as presented to the Ohio Legislature in bill form it was a compendium of proposals, some new, but others less so. The main features are: 1) students would sign a contract to repay state subsidy expended on their behalf at the maximum rate of 2 percent of their annual adjusted gross income minus $100 once they graduate or their income reaches $7,500--whichever occurs later;* 2) the maximum payback would be limited to three times the average

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*Payback is based on the individual's income. A woman who married and had no income of her own would not be liable for repayments, regardless of how high her husband's income might be.

undergraduate subsidy for four years;* 3) repayment of other educational loans would take precedence over repayment to the Ohio Plan; 4) students in two-year public institutions would not incur any obligation for state subsidy at that type of institution; 5) private college students who receive subsidy under contracts for services would also be obligated to repay the Ohio Plan for the amount of subsidy; 6) any subsidy not repaid after 30 years of graduation would be forgiven [8].

Since no interest is to be charged on the unrepaid portion of the state subsidy and the rate of repayment is geared to income, the effect is that of an interest-free loan with all the risk borne by the lender. This makes the Ohio Plan quite unlike the Yale Plan [15, p. 10] which does charge interest and which has two-sided risks: if the borrower's income is below a given level he does not have to repay, but if he becomes a very high income earner he would have to pay back more principle than he borrowed. The Ohio Plan has a payback feature that allows a student to pay off his total obligation with a 10 percent discount immediately upon graduation, an option that very few rational students will take at the prevailing level of interest rates.

The plan appears to be a state version of the Educational Opportunity Bank Plan which was later refined in a Departmen. . Health, Education and Welfare proposal as a National Student Loan Bank which would use the Internal Revenue System as a collection agency [18]. In terms of potential impact, the Ohio Plan will affect

*This provision is mainly for the benefit of those who go on to advanced graduate or professional education where the annual subsidy may be 5 to 15 times the subsidy for undergraduates.

many more students than the widely heralded Yale Plan.

Since state subsidy at two-year institutions does not have to be repaid under the proposal, but credits from community colleges are fully transferable to four-year schools, one effect of the plan would be the direction of a large number of lower-division students into the existing five community colleges and ten technical institutes. It would appear that this effect would hit private schools as well as public.

Public higher education lobby groups like the Association of Land Grant Colleges and Universities are cognizant of the fact that if the Ohio Plan is tied into the Contract for Service Plan, it will have the effect of giving students the power to shop around for private as well as public schools. This effect would shift part of the demand back to the private side because it would be an interest free loan on at least part of the private tuition costs. In the past, these groups have been able to muster effective opposition to proposed federal programs of this nature. The proposal will clearly shift a larger part of the burden for financing higher education to the student and the plan has been denounced as discriminating against low-income students for this reason. But for low-income groups as a whole, it will certainly be much less discriminatory than the present method of financing. Most of the benefits of higher education go to middle and upper income groups [6, p. 15]. While no figures are available giving relative family incomes for Ohio students, a survey of the whole 1969 freshman class at Ohio State University, outlined in Table VI, shows more students in the upper ranges than the national average. This is at least preliminary evidence that the distributional effects of the current financing system in Ohio leans toward

TABLE VI

COMPARISON OF OHIO STATE UNIVERSITY 1969
FRESHMAN FAMILY INCOME DISTRIBUTION
WITH NATIONAL AVERAGE

Income	Ohio State	National
Over $10,000	48.3%	33.8%
$3,000 to $10,000	47.8%	59.2%
Under $3,000	3.6%	6.1%
Total	99.7% *	99.1% *

*Doesn't add to 100% due to rounding errors.

SOURCE: R. Thompson and E. Mahr, <u>A Profile of Ohio State University Students</u> (Columbus: Ohio State, 1970), p. 46.

U.S. President, <u>Economic Report of the President</u>.

subsidizing children from higher income families with taxes that fall on all income classes. If the cost is only shifted to those low-income students who use the universities and then only if they eventually climb out of their low income status, it appears that low-income groups as a whole will be much better off.

Supporters of the plan will have to contend with the evidence that delinquency in paybacks of federal guaranteed loans have recently risen and the costs of collection on such a program might be substantial. But if the state government can manage to collect income taxes, they should be able to collect the subsidy paybacks. Other creditors do not find it that difficult to collect amounts which are within people's ability to pay. Another problem "in its present form" is the lack of an easily recognized student benefit. If student subsidies were made on the basis of an Ohio Educational Bank loan with the state paying the interest charges, the cost to the state would remain the same but each student would be notified of the amount of his benefit. The payback of the principle might be called a contingency-user-benefit tax in that the expenditure would take place before there was going to be any direct benefit in the form of a higher income after the educational period.

While the large number of unanswered questions will make adoption of the Gilligan proposal uncertain in the short run, it has about it an impeccable kind of logic that flows from the theory of public finance that envisions capital (including human capital) as generating a flow of future benefits. To the extent that these benefits flow primarily to those who have attended higher educational institutions, most notions of equity would seem to call for a greater part of the cost being borne by those who benefit. Even if common notions of equity do not tip the scales in favor of some version of the Ohio Plan, the exigencies of state needs and tax sources may. Even without the Contract for Services proposal the Ohio Plan would benefit private schools if students at public schools knew they would eventually have to repay the state subsidy spent on their behalf.

5. The Ohio Instructional Grants Program. In the 1969 session of the Ohio Legislature, the Instructional Grants Program (Section 3333.12 of the Ohio Revised Code) was passed, authorizing the Board of Regents to give grants, based on family income, to full-time Ohio students. The maximum grant for a student with adjusted effective family income under $3000 was $900 if he attended an institution with instructional and general fees over $1000 and a maximum of $300 where the fees were less than $1000. Since most of the private schools in the state fell into the over $1000 category and all the state schools fell into the less than $1000 group, it appears that this legislation was designed to encourage greater participation of Ohio students in private schools, as well as encouraging greater participation by low-income Ohio students in both public and private institutions.

In 1970, the first year of operation of the Instructional Grants Program, six million dollars was appropriated, but it appears that only four million was expended. Explanations offered for the lack of demand for these funds vary from qualifying students having little information about the program to a complaint that the grants were too small to allow a low-income student to participate. But, participation figures for 1971 indicate a substantial increase in the demand for these funds. It is probable that the first year's results reflect the nonexistence of either perfect information or zero information costs.

For the 1971 academic year, Instructional Grants funding was increased to $15 million and the amounts of the grants and minimum income to qualify for them were increased substantially. Under the original grant structure a student attending an institution with instructional and general fees exceeding $1000 was eligible for the maximum grant of $900 if family income was under $4000 and there were at least two dependent children in the family. With two dependent children, income would go as high as $6999 and still qualify the student for a $150 grant. The new schedule of grants pays the maximum of $1200 for an income under $4000 with only one dependent child. With two dependent children and an income of as high as $10,999 the student would still qualify for a grant of $300. In public institutions the $4000-income-one-dependent-child student would qualify for a $510 grant while the $10,999-income-two-dependent-children student would still qualify for a $150 grant. The total amount to be granted was increased about threefold, while the amount of the grants at the lower end of the income scale were increased about one-third. More significantly, grants were made available for children of small, middle-income families. State aid for reducing the cost to the lower and middle income student of attending either private or public institutions of higher education is now available. Emancipated single and married students are also eligible for grants under a different formula.

The funding of $15 million for the 1971 academic year and $16 million for the 1972 academic year is sufficient to fund less than 25 percent of the amount which would be required if all eligible students were to receive grants. If the grants do not induce any net increase in college enrollments in 1972 and if all eligible students apply, we estimate that the total amount required would be in the neighborhood of $67 million [5]. If there are induced increases in enrollments, the amount required will be still larger. Preliminary estimates indicate that the funds available for 1971-72 will probably be fairly well exhausted. If the information dissemination function is geometric, as seems reasonable, it appears highly likely that applications for funds in 1972-73 by qualified students will considerably exceed the $16 million which will be available. In this event, the legislature has specified that priority is to be given in the following order: 1) freshmen; 2) sophomores; 3) juniors; 4) seniors. At present funding levels, it appears doubtful the Instructional Grants Program will be able to issue grants to more than the freshman class in the 1974 academic year. By 1975, we estimate it will require at least $75 million to supply grants to all qualifying students who are likely to apply.

After the 1976 academic year total funding will probably level out at about $90 million per year [5]. Whether or not the legislature will be willing to appropriate annual sums of this magnitude is not clear, but political pressure (and possibly legal requirements of equal treatment) may well require that if some are to receive grants, then all who are eligible to receive them must be permitted to. The Instructional Grants Program as it now exists is the nucleus for a substantial redistribution of income when it is to be used for higher education by Ohio students at Ohio schools, whether public or private. The program also reduces the price differential between public and private schools in Ohio while avoiding the problems of direct payments or subsidies to private schools. This narrowing of the price gap between public and private schools is most pronounced for students at the lower income levels. But the latest subsidy schedules introduce one of the first programs, federal or state, which are of benefit to middle income families. If the program receives increased funding to meet the requests for grants by all qualifying students it will have the effect of establishing a tuition and fee schedule for Ohio residents at both public and private Ohio schools which will vary positively with income. This effective price which varies positively with income may permit schools to raise their prices to a greater degree than otherwise because they will escape both the criticism of gauging the poor and the loss of lower income students, due to their greater elasticity of demand for education. The effect will be to shift the cost of education more to the user but on a pay-as-you-can-afford-it basis; or to put it differently, a pay-as-the-traffic-will-bear-it basis. The effect of the law is to introduce price discrimination based on income. If elasticity of demand (at given prices) decreases as income increases and numbers of dependents decreases, this price discrimination will permit a greater total revenue to colleges and universities from user charges than would otherwise be possible. It will also probably come closer to conforming with many people's notions of equity.

If the program is to really satisfy equity considerations, though, there will have to be some changes made. As the program stands now, a part-time student is excluded from receiving any grants and the administrative rules on filing dates are heavily slanted toward the student who attends full-time for four years and makes this decision well in advance of the beginning of each academic year.

IV. Conclusion

The 1971 Master Plan appears to have overestimated the likely 1980 Ohio higher education enrollment. The 450,000 figure the Regents project [10, p. 15] for public institutions will require an increase in participation rates of about 35 percent [5] by 1980. It seems doubtful that this degree of increase in participation rates can take place. Total college age population will grow by less than 20 percent in the decade of the 1970's and the bulk of this growth will take place in the first half of the decade. But if the public enrollment projections appear to be mild overestimates, the hoped for doubling of enrollment in private institutions appears to be a wild hope. Since the bulk of the growth in student enrollment will occur by 1975, and the only program which will have had much impact by that time will be the Instructional Grants Program, this requires this significant program to bear a burden it does not seem likely to be able to carry.

We believe that even with the help of a fully funded Instructional Grants Program private schools will be doing well to maintain their present enrollment or expand by as much as 5 percent to 10 percent by 1975. With the slowdown in growth of total enrollment in higher education in the later half of the 1970's an additional 5 percent to 10 percent gain by private schools, even with the help of some further state aid, will be a difficult feat. Price differentials will continue to remain and the number of parents and students willing to pay the higher prices for the differentiated products of the private sector do not seem likely to increase.

The Instructional Grants Program will be of real help to private schools and will certainly make for significant increases in equality of opportunity if the program is fully funded. But one of the big questions is whether it will be fully funded. A fully funded Instructional Grants Program at current grant rates will probably amount to about 25 percent of the 1975 Ohio state higher education budget. It will not be a cheap program.

If the Instructional Grants Program were coupled with a modified version of the Ohio Plan which included subsidy payments at some level to private schools for Ohio students with the subsidy to be repayed by the students, it would reduce much of the cost difference between public and private schools and help to maintain their viability in a world where the public, urban, full university is apt to be the most rapidly growing type of four-year institution. But all four-year schools are likely to show only very moderate growth after 1975. Two-year colleges and technical schools will probably show much more rapid growth in the decade of the 1970's than their four-year big brothers. These two-year schools are filling a need that has long been there and they are growing up at a time when the four-year degree is no longer being viewed as the sure ticket to middle-class prosperity and success. It is obvious that the higher participation rates envisioned by the Board of Regents enrollment projection would obviously come from the lower income strata of the population who would tend towards the lowest cost opportunity available to them [13]. This currently would be in the two-year community college programs.

For political reasons it seems doubtful if the capital aid programs or library aid programs for private schools will ever get off the ground. If the private schools are to receive state aid and still retain the distinctions that come with their private status, they will have to rely on full funding for the Instructional Grants

Program and a piece of the action in any version of the Ohio Plan which may eventually be passed.

Ohio private schools will only be able to survive, never mind grow, if they are able to provide a product that is differentiated on grounds that appeal to a sufficiently wide segment of the market. It is our own feeling that religious differentiation which has been declining for a long period in schools that were originally started by Protestant sects is also declining in importance to Catholics. This means that the form of product differentiation has to be on other grounds such as small size, flexible or more innovative programs, different form of student/faculty relationship, etc.

Schools that are trying to carry out a shift in their program during periods of low growth in enrollment face special perils. A school may decide that its traditional religious emphasis is not drawing enough students so that it will attempt to de-emphasize this aspect of its program which leads to a drop in students drawn from its traditional sources. At the same time, it finds that its former parochial image makes it extremely difficult to attract a new clientel. For this reason we urge private schools contemplating such a change attempt to carry it out during the near future. Growth in the student age group is due to level out as 1980 approaches and decline thereafter. Unless there is a strong shift in demand towards the private sector caused by higher incomes or higher state school fees (unlikely if it will lead to excess capacity in a falling market), private schools will find opportunities to redefine their market limited in the post 1975 period and sharply limited after 1980.

There is considerable need for further research in financing higher education. We have considerable knowledge about costs, but knowledge about demand is very scanty. Hoenack [14] has done a good piece of work on estimates of price and income elasticities in a small section of California and is currently at work on some estimates in Minnesota. We need data on price, income, and cross elasticities if we are to predict participation rates among various socioeconomic groups and types of institutions as effective prices to users are changed.

The type of information needs outlined above will be useful to help friendly elephantine policy makers from inadvertently stepping on the chickens roaming in the same yard.

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