

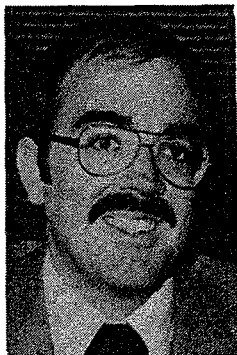
IMPACT OF A TUITION ASSISTANCE PROGRAM ON STUDENTS' FREEDOM OF CHOICE IN COLLEGE SELECTION

by *William E. Shaut and Linda M. Rizzo*

The question of financial support to postsecondary students in the United States has been a growing concern to many state legislatures. Some state legislatures have passed laws concerned with student financial aid programs for the purpose of enabling students to attend institutions of higher education (IHEs). The issue of financial support has not only been a concern on the state level, but has also received national attention. President Carter's budget request for 1979 outlined two steps designed to help college students meet the rising cost of tuition payments:

1. The maximum federal scholarship, called the basic opportunity grant, would be raised from \$1,600 to \$1,800, and the assets that parents can hold and still have their children eligible for the grants would be increased from \$17,000 to \$25,000. This step is designed to aid poor families.
2. \$100 million was set aside in a contingency fund to pay for an initiative that would help middle class parents, with a high income, to finance their children's higher education (*New York Times*, January 24, 1978, p. 13).

Although a substantial amount of financial aid is being funneled into need-based student aid programs nationally, as well as on the state level, little research has been conducted to determine the effects of these programs. While social action programs are difficult to evaluate, research can provide clues concerning the extent to which program goals are being achieved (Rivlin, 1971). A goal of state-funded programs for student support which has not been fully addressed in previous studies is freedom of choice.



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In analyzing a particular state-aid program, it is possible to determine two factors: 1) whether monies provided allow students to attend a college of their choice, and, 2) to examine which factors are instrumental in the student's selection. Previous research in this area has offered information regarding the impact of various variables on a student's selection of an IHE. These studies, however, do not concur on which variables are most influential.

Many variables involved in a student's selection of a college can be discerned. Not all factors, however, affect all decisions and not all factors appear to impact on a student's decision. Since college-going decisions are ultimately voluntary, educational policy makers at all levels of government, and at the 2,000 odd colleges in the United States ought to be concerned with the demand factors involved in those decisions. The factors which were examined in this study are cost, college selectivity, number of siblings in college, race, income, and academic ability and state-funded student assistance programs.

College decision-making model: Where a student ultimately attends college appears to be the result of three major decisions. The first decision is whether to attend college at all. The second decision, where to apply, and the third decision, which college to attend from among all those to which an individual is accepted, are separate but not independent decisions since factors affecting one decision often also affect the second.

A Review of Literature Concerning Influential Factors in the College Decision Process.

The review of literature that was conducted for this study revealed little regarding the two possible variables of academic ability. Regarding academic ability, however, Christensen, Melder, and Weisbrod (1975) found that high ability was a strong and consistent influence on the probability of attending college (p. 175). This variable does not, however, necessarily influence a student's freedom of choice concerning which college he will attend.

Race has also played a role in a student's attendance at a college. The largest group of disadvantaged minorities, blacks, underscore the status of other minority groups in the United States. In the early 50's, relatively few black youngsters enrolled in college. Two decades later the proportion of blacks in college, while below that of whites, was sizeable and rising rapidly. Even with the paucity of available research it does appear that parity or equal access has not yet been achieved between blacks and whites in college attendance. (Freeman, 1976 p. 45).

Cost, although a significant factor in the college decision process, does not prevent students from attending college. Corazzini, Dugan and Grabowski (1972) concluded that "family income is important in determining who enters the market for a college degree." The authors, however, indicated that there were programs, such as expanded scholarship and loan programs, which compensate for this factor.

Christensen, Melder, and Weisbrod (1975) found that the effect of family income on the probability of attending college is quite small. A near tripling of family income, from \$7,000 to \$20,000 a year, raises the probability of attending college only nine to ten percentage points.

In addressing the issue of student aid as an incentive to attract students, Jackson and Weatherby (1975) find that family income is a major consideration. Recent studies conducted by these authors indicate strongly that individuals from low income families respond more to price changes in higher education than do individuals from middle income and high income families. Lowering tuition or increasing student grants were found to be effective in increasing access, but evidence indicates that these financial incentives are expensive to taxpayers.

Research concerning college selectivity has indicated that students tend to go to IHEs where the ability of the student population as a whole is similar to their own. (Astin, 1971). The general trend of thought in this area is that students of high ability will gravitate towards IHEs that are highly selective while students of lower ability will apply to and attend less selective IHEs.

One factor which has been considered a determinant in college attendance is the number of siblings in the family. According to most authors, students from large families are substantially less likely to attend college than those from smaller families. Adams and Neidam (1968) point out that each additional offspring makes it less likely that a given child will attend college. In the case of an only child, there is greater educational advantage regardless of sex.

Variables which influence a student's decision to enter a particular college have been identified by previous research. There is, however, inconclusive evidence concerning what variables play a predominant role in their choice. This study has, therefore, a twin focus. It examines the impact of state-funded programs on a potential students' college selection decision, and the extent to which other variables, over and above state-funded programs, influence their decision. New York State's financial aid program was used for the study because it is the largest program in the United States. The other variables — cost, college selectivity, race, academic ability, family income, and the number of siblings in a family, — were considered because previous research has indicated they do play an important role in choosing a college.

The Tuition Assistance Program (TAP) in New York State

Student financial assistance began in New York State over 60 years ago, in 1913, when the Regents Scholarship Competitive Achievement awards were first established by the Legislature (Nyquist, 1976). In 1961, the Scholar Incentive Program (SIP) was established as a new program of basic entitlement tuition grants available to all students attending an IHE. The SIP provided for a maximum grant to students of \$600 which, in academic year 1973-74, was the amount received by the 20% of the recipients (*Higher Education Data System, 1977, p. 53*). At the other end of the scale, more than 33% of the recipients received the minimum grant of \$100. As a result, the average award in 1973-74 came to \$250 (*Higher Education Data System, 1977, p. 53*). TAP is an outgrowth of the SIP. This new student assistance program was passed by the Legislature on May 14, 1974 and signed into law by Governor Wilson on June 14, 1974. Its major provisions are:

1. A Tuition Assistance Program with a maximum award of \$1,500 or tuition, whichever is less. Awards are reduced by \$200 for upper division students.

2. Competitive Regents Scholarship awards became a flat grant of \$250 instead of a maximum of \$1,000 with the actual amount based on need.
3. A State subsidy of four-sevenths of the interest on federally guaranteed loans for all families with an adjusted income of less than \$30,000 but more than the income level at which the federal subsidy ceases.
4. Establishment of a New York State Higher Education Services Corporation (HESC) within the State Education Department "to improve the postsecondary opportunities of eligible students through the centralized administration of New York State financial aid and loan programs and to coordinate the State's administrative effort in student financial aid and loan programs with those of other levels of government." (*McKinney's Consolidated Laws of New State, Annotated, Book 16, Education Law, Sections 651-689, 1977*)

One major objective of this program is to aid students financially in order to allow them to attend a college of their choice.

Research Questions

Two major research questions were examined for this study. They are: 1) Does a state-funded, financial aid program provide potential students with freedom of choice in selecting a college? and 2) What factors impact on a student's choice of a college? By studying the potential student populations, it is possible to infer whether the award program had an influence on student freedom in choosing a particular institution of higher education, and, also, what variables were influential, over and above the award, in allowing students to choose a particular college.

Methodology

Sample

A random sample of Tuition Assistance Program (TAP) recipients was used. The sample of TAP recipients was randomly selected by the New York State Education Department, Office of Postsecondary Research, Information Systems, and Institutional Aid (OPRISIA). From the total population of 392,886, a final sample of 1,100 was identified. Only individuals who had a choice between one or more institutions of higher education were considered. Students who are already enrolled in such an institution were not part of the sample.

Three questionnaires were utilized. These included: 1) The Student Questionnaire (SQ) - a self-administered questionnaire devised by the OPRISIA; 2) the New York State Student Payment Application (NYSSPA) - used by New York State college students in applying to the Higher Education Services Corporation (HESC) for Regents Scholarships and TAP award; 3) the College Characteristics Form (CCF) - devised by the researchers in order to index college cost and selectivity characteristics for those colleges applied to, accepted at, and attended by respondents to the SQ.

Data Analyses

All responses to the questionnaire were coded and punched on IBM cards for statistical analyses. Statistical measurements used were means, t-test, chi squares, and coefficient of variation. Chi square was used to determine whether two nominal level variables are related. The coefficient of variation is the standard

deviation divided by the mean in each sub-group variable and is reported to provide the amount of relative dispersion around each mean. The tests of significance were at the following levels:

*significant at the .05 level

**significant at the .01 level

Findings

The results of the data analyses are presented in two parts: 1) a classification of IHEs by cost and selectivity characteristics; 2) a comparison of TAP recipients who had a choice of attending different IHEs based on cost and selectivity, and the impact of other variables on their choice.

The description of IHEs according to cost and selectivity is set forth in Table 1. IHEs were classified and coded on the bases of two factors—cost and selectivity. The IHEs included in this study were divided into four cost categories based on the actual average cost of attendance for a resident student for one academic year. IHEs in category one, non-residentials, do not have dormitories and their actual costs for one year are the lowest when compared to other categories. High cost IHEs (4) range from \$5,500 or higher per year. Medium cost IHEs (3) have a range of \$4,301-5,499 per year while low cost IHEs (2) average \$4,300 or less per year.

Table 1
Distribution of IHEs to Which TAP Recipients Applied
by Cost and Selectivity Characteristics

Cost	Selectivity				Total
	Highly Selective	Very Selective	Moderately Selective	Low Selective	
High Cost (4)	60	24	9	6	99
Medium Cost (3)	8	40	24	19	91
Low Cost (2)	7	18	27	47	99
Non-resident (1)	1	2	4	43	50
Totals	76	84	64	115	339

The IHEs were rank ordered according to cost and selectivity, and a gamma coefficient was then computed. Gamma is a frequently used measure of association for ordinal data to determine whether the population correlation of two ordinal level variables is different from zero (Loether & McTavish, 1974, p. 222). In this instance, the measure of association between cost and selectivity was 71.4. This figure indicates that there is a high degree of association between the cost of an IHE and the selectivity of the IHE; i.e., a high cost IHE will probably be very selective or highly selective in admitting students and vice versa for low cost IHEs.

The second phase of the analysis dealt with the type of IHE based on cost and selectivity which students choose to attend and the impact of certain variables on their final choice. Selectivity was defined by the percentage of TAP recipients who had a choice in selectivity of IHEs and opted to attend the highest selective

one. In order to determine the significance of variables on a student's choice of college a test of significance, chi square, was used. This section was divided into four categories: 1) a comparison of TAP recipients who had a choice between attending high cost IHEs and lower cost IHEs of different selectivity; 2) a comparison of TAP recipients who had a choice between attending medium cost IHEs and lower cost IHEs of different selectivity; 3) a comparison of TAP recipients who had a choice between attending low cost IHEs and non-residential IHEs of different selectivity; and 4) a comparison of results on choice categories one, two, and three when selectivity is considered as an independent variable.

The first category dealing with TAP recipients who had a choice between high cost IHEs and lower cost ones of different selectivity showed that both TAP awards and selectivity were significant variables. Both were significant at the .01 level. The other variables were not significant.

TAP awards for recipients attending the high cost category IHEs were substantially higher, over \$400, than awards for recipients attending the lower cost IHEs.

Recipients who opted to attend the higher cost IHEs also opted, overwhelmingly, to attend higher selective IHEs. The attendance pattern at the lower cost IHEs is almost totally opposite the results for high cost IHEs. Over 70 percent of the recipients in this analysis opted to attend the higher selective IHEs while at the lower cost IHEs only 21 percent opted to attend the highest selective IHE.

The second category focused on recipients who had a choice between attending medium cost IHEs and lower cost IHEs. These results are tabulated in Table 3. The significant variables were the same as the ones in Table 2. Both TAP awards and selectivity were at a .01 level of significance.

Students attending the high cost IHEs had mean award levels of \$450 above the mean award levels for recipients attending the lower cost IHEs.

As in Table 2, recipients attending the higher cost IHEs chose to attend the most selective IHE they were accepted at in much larger proportions than do

Table 2
Comparison of TAP Recipients Who Had a Choice
between Attending High Cost IHEs
and Lower Cost IHEs of Different Selectivity

Variable	Chose to Attend High Cost (4)		Chose to Attend Lower Cost (1, 2, 3)		Significance
	Mean	Coefficient of Variation	Mean	Coefficient of Variation	
Income	\$10,142	.59	\$10,111	.54	—*
TAP Award	\$ 989	.49	\$ 568	.77	.01*
% White	(75%)	—	(79%)	—	—**
% 1 or more siblings in IHEs	(38%)	—	(30%)	—	—**
SAT Index (academic ability)	2.84	.35	2.70	.37	—*
% Choosing higher IHE select.	(72%)	—	(21%)	—	.01**

*t-test used as statistical measure

**chi square used as statistical measure

recipients attending lower cost institutions. In comparing this table with Table 3, recipients attending the high cost IHEs chose to attend the higher selective IHEs in much larger proportions.

The next analysis, comparison of TAP recipients who had a choice between attending low cost IHEs and non-residential IHEs of different selectivity, shows results very similar to the two previous tables concerning the selectivity issue. The results of this analysis are reflected in Table 4. It is important to note that TAP awards do not play a significant role in this particular analysis.

Only 6% of the recipients who attended the lower cost IHEs opted to attend the highest selective IHE at which they were accepted. At the high cost IHEs, 68 percent opted to attend the higher selective IHEs. The selectivity variable was significant at the .01 level.

Table 3
Comparison of TAP Recipients Who Had a Choice
between Attending Medium Cost IHEs
and Lower Cost IHEs of Different Selectivity

Variable	Chose to Attend High Cost (3)		Chose to Attend Lower Cost (1, 2)		Significance
	Mean	Coefficient of Variation	Mean	Coefficient of Variation	
Income	\$11,139	.52	\$10,723	.49	—*
TAP Award	\$ 914	.50	\$ 453	.85	.01*
% White	(87%)	—	(88%)	—	—**
% 1 or more siblings in IHEs	(41%)	—	(34%)	—	—**
SAT Index (academic ability)	2.43	.45	2.48	.41	—*
% Choosing higher IHE select.	(53%)	—	(16%)	—	.01**

*t-test used as statistical measure

**chi square used as statistical measure

Table 4
Comparison of TAP Recipients Who Had a Choice
between Attending Low Cost IHEs and
Non-residential IHEs of Different Selectivity

Variable	Chose to Attend Low Cost (2)		Chose to Attend Non-residential (1)		Significance
	Mean	Coefficient of Variation	Mean	Coefficient of Variation	
Income	\$10,487	.51	\$10,011	.52	—*
TAP Award	\$ 392	.81	\$ 478	.78	—*
% White	(91%)	—	(84%)	—	—**
% 1 or more siblings in IHEs	(35%)	—	(30%)	—	—**
SAT Index (academic ability)	2.53	.39	2.48	.40	—*
% Choosing higher IHE select.	(68%)	—	(6%)	—	.01**

*t-test used as statistical measure

**chi square used as statistical measure

Table 5 groups the results of Tables 2-4 for a comparison. Both TAP and IHE selectivity were highly significant variables. TAP, however, was significant in the first two tables while selectivity was significant in all three analyses. For both the variables, the significant results were high in each case and the results were always higher for the higher cost IHEs.

This table shows that none of the other variables were significant under any of the conditions. For income, this variable was never significant. The race variable also proved to be insignificant. No significant results were obtained for academic ability or the number of siblings in college.

Table 5
Comparison of Results on Choice Categories One, Two
and Three When Selectivity Is
Considered as an Independent Variable

Variable	Category One Table 2	Category Two Table 3	Category Three Table 4
Income	—	—	—
TAP Award	.01 Higher in (4)	.01 Higher in (3)	—
% White % / or more siblings in IHEs	—	—	—
SAT Index (academic ability)	—	—	—
IHE selectivity	.01 Higher in (4)	.01 Higher in (3)	.01 Higher in (2)

Discussion

The major finding of this study is that differences in family income between TAP recipients who chose to attend higher cost institutions are not statistically significant. This finding was consistent under all choice conditions examined. Differences in the level of TAP award were statistically significant under most choice conditions, not a surprising finding since (a) higher cost institutions are in the independent sector, and (b) TAP awards are higher for TAP recipients attending independent institutions. When academic selectivity was treated as a personal characteristic of TAP recipients, differences in selectivity between the group who chose high cost and the group who chose low cost were also statistically significant. Given the strong positive association found in this study between institutional cost and selectivity, the choice of a higher cost institution would appear to be a choice for a more selective institution.

Based on the findings of this study, it was concluded that family income does *not* play an important role in the decision about which institution to attend when TAP recipients have a choice based on acceptance at two or more institutions with different cost characteristics. This conclusion should not be interpreted to mean that family income does not play a role at earlier stages in the college decision process when choices are made about whether or not to attend college, and to how many and to which institutions to apply. Where students could make

a choice between two or more institutions to which they had been accepted, those choices seem to have been made free of the constraints of family income. Therefore, freedom of choice seems to have occurred under the Tuition Assistance Program in New York State.

In addition to making clear the very specific nature of freedom of choice as examined in this study, there are two other major reasons for being somewhat cautious about interpreting the principal findings. First, this was a study of the college choice made by TAP recipients, not a study that compared recipients with students not eligible for TAP awards because of their higher levels of family income. While many recipients with family income as high as \$20,000 and with awards as low as \$100 per year were included in the study sample, generalizing the study's findings to the entire population of first-time TAP recipients is not appropriate. Second, this was not a pre-TAP/post-TAP study, but rather an examination of the college choices made by students in only one academic year. Therefore, one should not conclude that the neutralization of family income is directly attributable to TAP. Comparable data from earlier years are not available to support the proposition that, for the types of students included in this study, family income was an important factor in college choice decisions prior to the implementation of TAP in the 1975-76 academic year.

REFERENCES

- Adams, B. N., & Neidam, M. T. "Economics, Family Structure, and College Attendance." *American Journal of Sociology*, November 1968, 74 (3). 230-239.
- Astin, A. W. *Predicting Academic Performance in College: Selectivity Data for 2300 American Colleges*. New York: Free Press, 1971.
- Christensen, S. Melder, J., & Weisbrod, B. A. "Factors Affecting College Attendance." *Journal of Human Resources*, Spring 1975, 174-188.
- Corazzini, A., Dugan, D., & Grabowski, H. "Determinants and Distributional Aspects of Enrollment in U. S. Higher Education." *Journal of Human Resources*, Winter 1972.
- Freeman, R. *Black Elite: New Market for Highly Educated Black Americans*. New York: McGraw Hill Book Co., 1976.
- Higher Education Data Systems*. Albany, New York: The University of the State of New York, The State Education Department, Office of Postsecondary Research, Information Systems and Institutional Aid, September 1977.
- Jackson, G. A., & Weatherby, G. B. "Individual Demand for Higher Education: A Review and Analysis of Recent Empirical Studies." *Journal of Higher Education*, November/December 1975, 66, 623-652.
- Loether, H. J., & McTavish, D. *Inferential Statistics for Sociologists: An Introduction*. Boston: Allyn & Bacon, Inc., 1974.
- McKinney's Consolidated Laws of New York, Annotated, Book 16 Education Law*. Section 601-2100, Cumulative Annual Pocket Part, for use in 1976-77. St. Paul, Minnesota: West Publishing Company, 1976.
- New York Times*, January 24, 1978, p. 13.
- Nyquist, E. B. *The New York State Student Assistance Programs*. Report before the Senate Committee on Higher Education, Albany, New York, December 1, 1976.
- Rivlin, A. M. *Systematic Thinking for Social Action*. Washington, D.C.: The Brookings Institute, 1971.