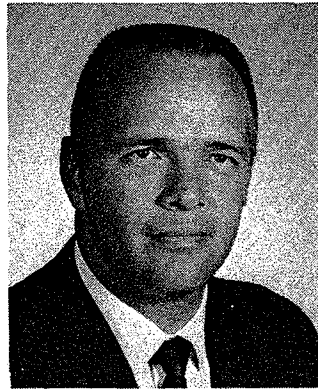
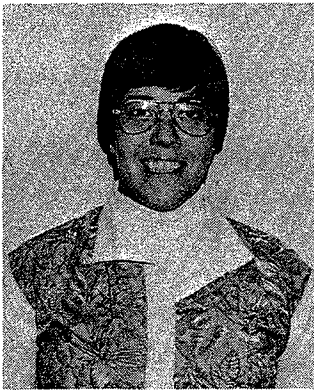


MEETING THE INTENT OF A STATE-FUNDED STUDENT AID PROGRAM: TEST OF AN ASSESSMENT MODEL

by Terry Ann Schwartz and Jay L. Chronister

Considering the problems which most states have recently encountered in providing adequate financial support to higher education as well as the continuing demands for accountability and economy in the investment of public tax dollars, it would appear that studies of the impact of such investment would be relatively routine. Such is not the case. With the exception of a few specific studies by selected states, there is a dearth of literature on the impact of state programs of assistance on independent higher education.

In analyzing the intent behind state aid programs, it is possible to identify multiple intents as specified within enabling legislation and implied intent by reviewing studies, proposals, and the proceedings of the hearings which have led to the development of legislation. Such intents may include stabilizing enrollments in private sector institutions as a means of maintaining the fiscal and academic viability of those institutions, as well as narrowing the tuition gap between public and private institutions in order to allow private colleges a reasonable opportunity to compete for students. Both these purposes provide students some degree of economic freedom in the selection of a college.



Terry Ann Schwartz is Assistant Professor in the Bureau of Educational Research and the Department of Research and Evaluation at the University of Virginia. For the past two years she has been involved in research and evaluation activities on a variety of topics at the public school and higher education levels.

Jay L. Chronister is Associate Professor in the Center for the Study of Higher Education at the University of Virginia. Since 1971 he has been involved in research and publication on the topics of state aid programs involving independent higher education, and the independent sector's involvement in state planning for post-secondary education.

State-Funded Student Aid Program: Background

According to a recent report completed by the Education Commission of the States (ECS) [5], thirty-nine states provide some type of need-based or non-need based grants to students attending private sector institutions. This aid award is not categorical in nature, but rather designed to meet the policy intent of facilitating student choice to attend independent institutions by alleviating financial constraints. The aid is also meant to increase utilization of independent institutions as educational resources within the state. In addition, the aid in a number of states has been designed to achieve economy in meeting state postsecondary education needs and to assist independent colleges in meeting their financial needs.

These policy intents are often achieved by other means. A number of states provide aid to independent sector institutions in the form of direct institutional support (14 states), contracts for special programs and services (17 states), and specialized programs and services for the disadvantaged (6 states) [5]. As with the student aid programs, the policy intent behind the direct institutional aid programs has been focused on increasing: (1) utilization of independent college resources in meeting state needs; (2) state economy in meeting educational needs; and, (3) independent college income as a means of preserving the diversity of educational opportunity provided by the independent sector. Only five states do not have some type of categorical or general student support or institutional support program involving the independent sector of higher education.

Although there is no firm figure available in terms of the total dollars being invested by the states in independent colleges, the amount is sizeable. The ECS Task Force report [3] estimates that for 1976-77 the state support to independent colleges and their students, utilizing an average per full time equivalent (FTE) student for the fifty states, was \$195 in student aid and \$86 in direct institutional aid. Recognizing that not all states provide such aid, and that the program characteristics among the states vary considerably, the range of average amounts of aid per FTE student nationally was as follows: student aid, \$4 to \$400; and direct institutional aid, \$1 to \$320.

A 1976 study of the accountability measures which follow aid to private higher education [4] included an analysis of the intent contained in the enabling legislation of student-support and direct institutional-support programs involving the independent sector of higher education. This analysis of legislation of fifty student-support and nine institutional-support programs operating in thirty-three states found that no specification of intent was set forth in 34% of the student support programs and in 44% of the institutional support programs. Among the programs for which an intent was specified, the following eight major areas of purpose were identified:

1. Provide the student economic freedom in the selection of a college;
2. Narrow the tuition/fees gap, providing the private colleges a reasonable opportunity to compete for students;
3. Contribute to the quality and diversity of higher education by maintaining a viable private sector;
4. Stabilize enrollments;
5. Meet an important public purpose;

6. Utilize more effectively available higher education resources;
7. Meet financial need;
8. Other (scholastic ability and financial need)

The need for the continuous assessment of these aid programs has been recommended on the national level. In June of 1977, the Education Commission of the States' Task Force on State Policy and Independent Higher Education issued its final report concerning issues and policy considerations involved in the growing interaction between the states and independent higher education. One of the eleven recommendations made by the Task Force was that "programs of support that benefit independent higher education should be monitored by the states to provide continuous assessment of the extent to which those programs accomplish the objectives for which they were designed." [4]

Assessment Model

Within the context of studying the impact of a state student aid program on the decision-making of students, it is important to be cognizant of other cost, academic, and demographic factors which may also have a major influence on that decision. Similarly, in monitoring the effectiveness of the program under study, it is important to identify the indirect benefits of such programs. These can be identified as implied or non-specified objectives of such assistance programs.

Such a model could focus on the various resource and consumer agencies involved in the aid-granting process: the state, the institutions of higher education, and the recipients. Optimally, the model should represent the functional interdependencies necessary to the process. The model presented below illustrates these resource-consumer interdependencies:

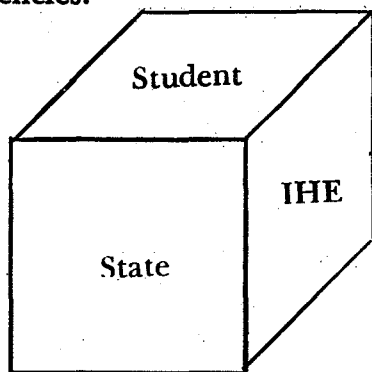


Figure 1. Illustration of the Resource-Consumer Assessment Model

As can be seen in the model, a variety of conceptual assessment strategies can be utilized. One can focus on the students as consumers or resources, on the state as consumers or resources, or on the independent higher education institutions as consumers or resources.

The Resource-Consumer Assessment Model provides a conceptual framework within which primary and secondary program intents or objectives can be delineated and around which assessment strategies can be structured. Below is an example of how the model can assist in defining interdependencies.

A. Specified program intent:

Contribute to the quality and diversity of higher education in the state by maintaining a viable private sector.

1. Primary strategy for achieving intent: Tuition assistance program for students attending independent/private institutions.
2. Specified or implied impacts of the program (program objectives)
 - a. Narrow tuition/fees gap between public and private institutions, therefore providing private colleges a reasonable opportunity to compete for students
 - b. Provide students increased economic freedom in selection of a college
 - c. Encourage stabilization or increase in enrollment in independent/private sector institutions
 - d. Alleviate excessive fiscal burden on student aid budgets of independent institutions

B. Application of the assessment model

1. State Dimension:

- a. Resource(s) provided
 - 1). Type of program: need-based or non need-based student aid
 - 2). Level of funding
 - a). Average funding available per eligible student
 - b). Maximum allowable award per eligible student
- b. Expectations of the state as a consumer (of institutional resources)
 - 1). State residents educated at independent institutions
 - 2). Economically and academically viable independent sector of higher education
- c. Impact assessment questions
 - 1). Has the program had the anticipated impact on student enrollment in the independent sector institutions?
 - 2). Has the program had the anticipated impact on independent sector institution financial conditions?
 - 3). Has the program had the intended impact of student decision-making regarding college attendance?

2. Institutional Dimension:

- a. Resources provided
 - 1). Educational opportunities
 - 2). Specialized programs
 - 3). Economy to the state
 - 4). Diversity in purposes and values
- b. Expectations of the institution as consumer (of state resources)
 - 1). Stabilization or increase in student enrollment
 - 2). Improved competitive position in the student marketplace
 - 3). Improved institutional financial condition
- c. Impact assessment questions
 - 1). Since implementation of the state program has enrollment stabilized or increased?
 - 2). What is the pattern of enrollment of state residents since implementation of the state program?

- 3). Has the student applicant pool changed in actual numbers and in terms of the relative proportions of state resident to non-state resident applicants?
 - 4). Has there been a change in the fiscal condition of the institution which can be attributed to or related to the implementation of the state program?
3. Student Dimension
- a. Resource (s) provided
 - b. Expectations of the student as consumer
 - 1). Increased economic freedom in the choice of a college
 - 2). The opportunity to choose a college which meets his or her academic and personal needs
 - 3). Adequate financial assistance to meet educational costs
 - c. Impact assessment questions
 - 1). Did the aid program assist the student in attending his or her first choice institution?
 - 2). Would the student have made the same decisions about his or her college choice if the aid program had not been available?
 - 3). Has the aid program been significant in influencing students to remain in college?

Because the relationships in any aid program of the type discussed above are complex, all three "faces" should be utilized maximally. However, realities may not permit the operationalization of the entire model. In the test of the model described below, a concentration on the student "face" only was possible. The utility of the model, though, may be partly fulfilled by its ability to allow for such an analysis by its parts.

A Test Of The Model In Virginia [2]

During the 1976-77 academic year, state aid in the form of grants and loans was provided to over eighty-five hundred students enrolled in private colleges in the Commonwealth of Virginia. The Tuition Assistance Grant and Loan Program (TAGLP), through which financial assistance is provided Virginia students attending independent colleges, came into being to preserve the vitality of a pluralistic system of higher education and to encourage freedom of choice in college attendance.

Starting as a loan program in 1973 and adding the grant program in 1976, the maximum amount of the award (grant or loan) for an academic year has held constant at \$400. Through the 1977-78 year the number of awards has increased steadily since the beginning of the program in 1973-1974. During the 1976-77 academic year alone, a total of 3,260 freshmen received grants and 5,294 upperclassmen received loans.

Since the implementation of the program, a stabilization and subsequent slight increase in enrollment in independent sector institutions in the Commonwealth has occurred. In addition to an overall headcount enrollment increase of 2,100 students between Fall 1974 and Fall 1977, the enrollment of Virginia residents also increased by approximately 10% [1]. While this enrollment change was in a direction compatible with the intent of the Virginia General Assembly — to en-

courage and strengthen the independent institutions — no systematic assessment had been undertaken to determine whether the program was meeting its policy intent of encouraging student freedom of choice in college attendance.

The study described in this report was designed to gather information on the impact of the Tuition Assistance Grants (TAG) on the college decision making of grant recipients. No loan recipients were included in the study since the loan component of TAGLP is being phased out. The 1978-79 academic year will complete that process.

Research Questions

The student "face" of the model described above was the focus for the analysis. Its particular components were operationalized through the use of two major research questions: (1) What are the characteristics of Tuition Assistance Grant recipients on selected personal and demographic factors? and, (2) How did the availability of the Tuition Assistance Grant affect students' decisions on college attendance? By directly studying the student populations who are eligible to be recipients of the awards, it is possible to infer whether the award program and amount of the award had an influence on student economic freedom in choosing the private college in which the student enrolled.

Methodology

Sample

A stratified random sample with replacement of students identified as Tuition Assistance Grant recipients was drawn. The study sample included individuals from twenty-five private colleges in Virginia who were randomly selected from the pool of eligible individuals at each institution. Questionnaires were sent to 950 people, representing a 12% sample of the population.

Instrumentation

Since the study was a cooperative process involving the State Council of Higher Education, the Council of Independent Colleges, and the study team, all three agencies agreed upon the purposes and the strategies to be used in conducting the study. It was decided, for practical reasons, to conceptualize the study by focusing on the student "face" in the model, and to operationalize the study through the use of a questionnaire survey.

The questionnaire utilized the two major research questions as the starting point; from these, specific dimensions to be studied could be generated. In order to identify the characteristics of the TAG recipients, the following selected personal and demographic factors were utilized: age, sex, race, marital status, residence, economic status, college status, and sources of financial support. To assess the impact of the Tuition Assistance Grant on students' decisions to attend college, several methodologies were utilized. First, the students were requested to rank a number of factors which have been identified in the literature as influential in decision making regarding college choices. One factor was the availability of the tuition grant. The students were then requested, through a series of related questions, to indicate what decisions on college attendance they would have made if the tuition grant had not been available.

Items were generated for the instrument, and a preliminary version was shared with the cooperating agencies. A revision was prepared and shared, and a third and final draft was accepted. The twenty-three item questionnaire was then distributed to the sample.

Data Analysis

Information relative to the characteristics of grant recipients was analyzed and reported by frequencies and percentages. In addition, results of cross-tabulation procedures were presented which illustrate the nature of the relationships between selected respondent characteristics and their college attendance factors. A Chi Square statistic was used to assess the degree of association between variables, with the appropriate levels of significance obtained indicated.

Findings

The results of the data analysis are presented in three parts: (1) a description of the characteristics of the TAG recipients who responded to the questionnaire; (2) a presentation of information related to the college decision-making of the respondents; and, (3) the analysis of the interrelationships among various parts.

The basic descriptive characteristics of the respondents to the study are set forth in Tables 1 and 2. It is interesting to note that although the Tuition Assistance Grant was available only to freshmen and sophomores during the 1977-78 academic year, 9.3% of the respondents were in the age range of 21-39 years. As show in Table 2, 366 (88.2%) of the 415 respondents to this item indicated that they were economically dependent on their families, while nearly 12% indicated economic independence.¹ Among the dependent students, 17.7% reported family incomes of less than \$10,000 dollars per year, while at the high end of the scale 33.6% reported family incomes of over \$25,000 per year.

Since one of the "intents" of the Tuition Assistance Grant and Loan Program was to facilitate student freedom of choice in college attendance, the subjects were requested to indicate their first choice college. Seventy-eight point six percent of the respondents indicated they were currently attending their first choice institution, while the first choices of the other students were another in-state private college (4.5%), public institution in Virginia (11.4%), or out-of-state institution (5.4%). Of those not attending their first choice college (95 students), 47% gave the reason that they were refused admission, 21% indicated non-attendance due to cost, and 32% indicated "other" reasons.

In order to assess the importance of the Tuition Assistance Grant in terms of college decision-making, all respondents were requested to rank seven factors which are considered to have had a potential influence on their decision to attend the college in which they were currently enrolled. When the first and second highest priorities for each factor in Table 3 were combined, the rankings by respondents were as follows: academic quality of the college, 72.4%; college location, 48.8%; availability of specialized program, 33.5%; amount of financial

¹An interesting finding of the study was that 168 (36.3%) of the 430 survey respondents with siblings currently had siblings in college.

assistance provided, 18.7%; other, 12.9%; cost, 11.5%; and expectation of receiving Tuition Assistance Grant, 6.3%.

In further assessing the influence of the TAG grant on students' decisions regarding college attendance, the respondents were asked to indicate what they would have done had the grant not been available. In response to this area of inquiry, 59% (255) of the respondents indicated that they would have enrolled at their current college full-time even if the TAG grant had not been available. Of the remaining students, 13% stated they *would not* have enrolled and 28% indicated that they *might not* have enrolled.

Of the 164 students who indicated what they might have done had they not enrolled at their current institution on a full-time basis, 27 stated they would not have attended college in that year.

Table 1
Characteristics of Respondents

CHARACTERISTIC	N	PERCENT OF TOTAL*
Year in College		
First	237	51.2
Second	226	48.8
Transferee		
Yes	36	7.8
No	427	92.2
Sex		
Male	224	48.4
Female	239	51.6
Martial Status		
Married	22	4.8
Unmarried	441	95.2
Age		
17-20	419	90.7
21-29	32	6.9
30-39	11	2.4
Race		
White	378	83.6
Black	74	16.4
Siblings		
0	31	6.7
1-2	249	54.0
3-4	128	27.7
5-8	53	11.5
Siblings in Secondary School		
1	155	65.7
2	60	25.4
3-5	21	8.9
Siblings in College		
1	121	72.0
2	38	22.6
3-5	9	5.4
Residence		
Parents' Home	95	20.6
College Housing	333	72.1
Rented Facility	15	3.2
Other	19	4.1

*Percent of total represents the percent of the total number of respondents *within* each category.

Table 2
Economic Status of Survey Respondents (N=415)

DEPENDENT ON FAMILY	N	PER CENT OF TOTAL (DEPENDENT)
Income Level of Parents		
Less than \$5,000	24	6.6
\$5,000 to \$9,999	40	10.9
\$10,000 to \$14,999	73	20.0
\$15,000 to \$19,999	53	14.5
\$20,000 to \$24,999	53	14.5
\$25,000 or more	123	33.6
Total	366	

INDEPENDENT FROM FAMILY	N	PER CENT OF TOTAL (INDEPENDENT)
Income Level of Respondents		
Less than \$4,000	33	68.0
\$4,000 to \$5,999	6	12.0
\$6,000 to \$7,999	2	4.0
\$8,000 to \$9,999	2	4.0
\$10,000 to \$11,999	4	8.0
\$12,000 or more	2	4.0
Total	49	

Table 3
Factors Influencing Decision to Attend Current College

FACTORS	RANKINGS (1= HIGHEST PRIORITY)														Total N
	1		2		3		4		5		6		7		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
1. Location of of College	89	20.3	125	28.5	108	24.7	56	12.8	21	4.8	30	6.8	9	2.1	438
2. Academic Quality of College	207	47.7	107	24.7	75	17.3	25	5.8	13	3.0	6	1.4	1	0.2	434
3. Cost to Attend College	10	2.4	38	9.1	44	10.6	98	23.5	83	19.9	102	24.5	42	10.1	417
4. Amount of Financial Assistance from College	38	9.1	40	9.6	54	13.0	55	13.2	103	24.8	83	20.0	43	10.3	416
5. Specialized Academic Program	50	12.0	90	21.5	88	21.1	71	17.0	59	14.1	44	10.5	16	3.8	418
6. Expectation of TAGLP	4	1.0	22	5.3	40	9.6	88	21.1	118	28.2	122	29.2	24	5.7	418
7. Other	41	8.9	16	4.0	19	4.7	20	5.0	13	3.2	18	4.5	275	68.4	402

A total of 233 respondents indicated they were receiving financial aid in addition to the Tuition Assistance Grant. In response to a question regarding the sufficiency of the aid to meet their educational needs, 59% felt the aid package to be sufficient. However, only 10% of the 233 felt that their aid package would be adequate without the \$400 grant.

Findings

Based upon the descriptive data presented, it was inferred that the Tuition Assistance program's \$400 grants had a marginal impact upon the college decision-making of the respondents when the significance was related to other factors which influenced the student decisions. When viewed in the context of the 13% of the respondents who would not have attended their current college without the grant and the additional 28% who might not have attended, the importance of the award increases. The fact that 90% of the 233 students receiving financial aid indicated their aid package would not be sufficient without the \$400 grant lends support to the importance of the grant to a large segment of the recipients.

In an attempt to refine the assessment of the influence of the grant program, the data was analyzed by family income or personal income, and by college tuition level. When student responses to this question were analyzed by family income level (see Table 4), significant differences were found. Students from lower income families were more inclined not to attend the current college without the grant.

Table 4
Relationship of Enrollment in College without
TAGLP to Family Income Levels

INCOME LEVELS		Yes	No	Maybe	Row Total
COLLEGE ENROLLMENT WITHOUT TAGLP					
\$0000- \$9,999	Count	23	14	25	62
	Row Pct	37.1	22.6	40.3	18.1
	Col Pct	11.0	35.0	26.9	
	Tot Pct	6.7	4.1	7.3	
\$10,000- \$19,999	Count	61	18	38	117
	Row Pct	52.1	15.4	32.5	34.1
	Col Pct	29.0	45.0	40.9	
	Tot Pct	17.8	5.2	11.1	
\$20,000 and up	Count	126	8	30	164
	Row Pct	76.8	4.9	18.3	47.8
	Col Pct	60.0	20.0	32.5	
	Tot Pct	36.7	2.3	8.7	
Column Total		210	40	93	343
		61.2	11.7	27.1	100.0

Raw Chi Square = 38.13490 with 4 degrees of freedom
Significance = .0000

In analyzing student responses to this item by tuition level of the institution they attend, significant differences were also found (see Table 5). Students attending institutions with lower tuition were more likely to indicate that they would not, or were unsure if they would, attend their current college without the Tuition Assistance Grant award. This result is in keeping with the study findings that the higher the family income level the greater the possibility that the student would attend the higher tuition institutions, and the lower the income the greater the significance of student aid.

Of the 164 students who indicated what they would have done if they were not sure of attending, or definitely would not have attended the college at which they were currently enrolled without the TAG, only 6 (3.7%) students indicated they

would have attended another in-state private institution and 5 (3.0%) would have attended an out-of-state private college.

Once again, of the 164 respondents to the question, 55% (90) stated they would have enrolled at a public institution in the Commonwealth of Virginia if the Tuition Assistance Grant had not been available. An additional 4.3% (7) indicated they would have attended an out-of-state public institution. When the decision to attend a public college in the Commonwealth is related to family income within each classification, the proportion of respondents who indicate attendance at a public institution as an alternative to not attending the current institution on a full-time basis increases as the income level rises. Similarly, as the tuition level of institutions the respondents attend increases, a larger proportion of the students cite attendance at a public college in Virginia as the alternative if the Tuition Assistance Grant were not available.

Table 5
Relationship of the Respondents' Enrollment in College
without TAGLP to College Tuition Levels

TUITION LEVELS		ENROLLMENT IN COLLEGE WITHOUT TAGLP			
		Yes	No	Maybe	Row Total
\$1,170- \$1,880	Count	36	16	26	78
	Row Pct	46.2	20.5	33.3	18.2
	Col Pct	14.1	29.1	21.8	
	Tot Pct	8.4	3.7	6.1	
\$1,980- \$2,170	Count	47	11	42	100
	Row Pct	47.0	11.0	42.0	23.3
	Col Pct	18.4	20.0	35.3	
	Tot Pct	11.0	2.6	9.8	
\$2,400- \$2,675	Count	57	19	24	100
	Row Pct	57.0	19.0	24.0	23.3
	Col Pct	22.4	34.5	20.2	
	Tot Pct	13.3	4.4	5.6	
\$2,820- \$2,940	Count	75	5	21	101
	Row Pct	74.3	5.0	20.8	23.5
	Col Pct	29.4	9.1	17.6	
	Tot Pct	17.5	1.2	4.9	
\$3,140- \$3,905	Count	40	4	6	50
	Row Pct	80.0	8.0	12.0	11.7
	Col Pct	15.7	7.3	5.0	
	Tot Pct	9.3	.9	1.4	
Column Total		255	55	119	429
		59.4	12.8	27.7	100.0

Raw Chi Square = 39.86729 with 8 degrees of freedom.
Significance = .0000

Discussion

The utility and effectiveness of the assessment model proffered rests in the degree to which it: (1) could be made operational; (2) illustrates the various relationships that exist; and, (3) provides appropriate information from its application. From the test of one "face" of the model, the student "face", one can conclude that the model may be both useful and effective. The resource-consumer model - student "face" - was made operational through the use of a survey instrument.

The nature of the information generated has, in fact, taken into account the various dimensions of such student aid programs, as demonstrated by the comparison of the information gathered and the intents of the program. The State Council of Higher Education and the Council of Independent Colleges received the information through both formal and informal feedback mechanisms. These data were then disseminated throughout the state government to appropriate legislative committees, members of the general assembly, and people involved in higher education. Thus, in terms of providing information to policy makers and decision makers, the application of part of the model was successful.

One must realize, however, that only one dimension of the model — one “face” — was made operational. Both the institutional dimension and the state dimensions were not part of the test. Therefore, certain information about the student aid program was not available. The additional insights which could be gathered through an appropriate application of the entire model would surely be useful if the information gathered as part of a test of one facet of the model can be considered a standard.

Toward the Future

Although the success of applying one face provides some credibility, the whole resource-consumer assessment model needs operationalizing. Judging its success or failure should come from one criterion: Does the model, when applied in full, give decision makers and policy makers the knowledge that they should have — must have — to make top-level decisions about student aid programs?

In future studies, researchers should be concerned with the degree to which the model is successful and useful in its conceptualization and operationalization. When we can adequately specify the state, the institutions, and the students as both resources and consumers of a student aid program, we can optimally link the research arena to the policy arena regarding student aid programs.

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