DOCUMENT RESUME

ED 115 832 CE 005 657

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| TITLE | Socioeconomic Influences on the Educational and Career Paths of Kentucky High School Seniors. |
| INSTITUTION | American Coll. Testing Program, Iowa City, Iowa.; Kentucky Higher Education Assistance Authority, Frankfort. |
| PUB DATE | Nov 73 |
| NOTE | 83p.; Not available in hard copy due to marginal reproducibility |
| EDRS PRICE | MF-$0.76 Plus Postage. HC Not Available from EDRS. |
| DESCRIPTORS | Academic Achievement; Academic Aspiration; *Career Choice; Career Planning; *College Choice; Decision Making; Economic Factors; Educational Background; *Educational Opportunities; Factor Analysis; Family Influence; High School Curriculum; *High School Students; Occupational Choice; Performance Factors; Post Secondary Education; Social Factors; *Socioeconomic Influences; Student Characteristics; Surveys |
| IDENTIFIERS | ACT; American College Testing Program; Kentucky |

ABSTRACT

The report is a response to Kentucky Higher Education Assistance Authority's concern about limiting factors which constrain students' choices of paths to follow after leaving high school, specifically unacceptable factors that prohibit students (1) from pursuing postsecondary education and (2) from entering postsecondary institutions of their choice. Not causal factors, limiting variables simply place some boundaries on students' educational and career futures. Information about the educational background, future plans, parental economic status, and other factors which influence students' decisions was gathered through an American College Testing Program (ACT) 121-item questionnaire administered to a 10 percent random sample of Kentucky high school juniors and seniors in 1973. The results of the survey data analysis are reported and discussed with reference to each of the two types of decisions. The decision to enter postsecondary education was found to be related to: students' high school curriculum program, their high school average, their expected postsecondary education cost, and their family's annual income. The many findings concerning relationships of factors limiting the institution-choice decision include the discovery of wide disparities between expected and actual costs of postsecondary education, and between expected and computed parental contribution. (AJ)

# SOCIOECONOMIC INFLUENCES ON THE EDUCATIONAL AND CAREER PATHS OF KENTUCKY HIGH SCHOOL SENIORS

November 1973



Conducted by
The American College Testing Program, Inc.
Iowa City, Iowa

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Published by
Kentucky Higher Education Assistance Authority
Capital Plaza Office Tower
Frankfort, Kentucky 40601

(Cost of printing paid from state funds)

COMMONWEALTH OF KENTUCKY

HIGHER EDUCATION ASSISTANCE AUTHORITY

CAPITAL PLAZA OFFICE TOWER
FRANKFORT, KENTUCKY 40601



November 15, 1973

To Governor Wendell H. Ford

and

The General Assembly of 1973

and

The People of Kentucky:

In December, 1972, the Kentucky Higher Education Assistance Authority determined that adequate data on the financial needs and resources of Kentucky residents wishing to pursue an education beyond high school was not available. The Authority Board, therefore, directed its staff to initiate a request to the Council on Public Higher Education for the necessary funds to conduct a comprehensive study of student financial aid in Kentucky. In January, the Council reviewed, approved and funded a five-phase research project. This project, when completed, will constitute a comprehensive examination of the financial barriers to undergraduate education in Kentucky's vocational-technical, two-year and four-year, public, private and proprietary institutions.

A previously printed research report entitled "A Survey of Student Financial Aid Resources in Kentucky" delineated the amount and availability of post-secondary student financial aid in Kentucky. This volume containing the second of five interrelated research reports examines the aspirations and expectations of Kentucky high school students and is entitled "Socioeconomic Influences on the Educational and Career Paths of Kentucky High School Seniors." Subsequent phases of the research project will analyze aggregate financial needs of Kentucky's post-secondary students and will develop model student assistance programs especially for Kentucky.

The Authority Board urges each reader of this and subsequent reports to become familiar with the findings, conclusions and recommendations in each volume and encourages full public discussion of the effects of existing and potential student assistance programs on the educational opportunities of Kentucky's residents. It is the hope of the Authority Board and its staff than an enlightened public discussion of the available student financial aid resources,

needs, projections, issues, trends and actual and potential events will influence the long-range planning of an optimum program of student financial aid.

This research report was prepared by the American College Testing Program, Inc., a recognized authority on matters relating to access to post-secondary education and, particularly, with reference to student financial aid. The findings of this study provide a basis for further study on the effects of changes in the amount and availability of student aid resources on access to post-secondary educational programs. The KHEAA is pleased to provide in this publication the entire text of the ACT report.

Respectfully,

George P. Crounse
Chairman

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# CHAPTER I

## INTRODUCTION

Kentucky adolescents follow any one of a number of paths after leaving high school. Some enter the military services, some enter the labor force, some go to community colleges, some go to four year colleges, and some are unemployed. Which path a student follows is the consequence of a large array of factors, some of which are the objects of this report.

Specifically, this report is a response to Kentucky Higher Education Assistance Authority's (KHEAA) concern about factors which constrain students' particular choices of paths to follow. It is the identification and subsequent removal of (a) unacceptable factors that prohibit students from pursuing postsecondary education, and (b) unacceptable factors that prohibit students from entering postsecondary institutions of their choice that are the ultimate objectives of KHEAA. Toward these ends a study was undertaken that had an objective which was in congruence with these ultimate objectives. The purpose was to identify those factors that are related to the choice of paths of Kentucky high school seniors. The remainder of this chapter is devoted to a brief discussion of the approach and the design of the study which would lead to the achievement of this objective.

### Approach

There are a number of approaches which could have been taken to accomplish the objective of the investigation (e.g., see Antonovsky, 1967; Herriott, 1963; Kandel & Lesser, 1969; McDill & Coleman, 1965; Sewell, Haller, & Straus, 1957; Thistlethwaite & Wheeler, 1965). The one adopted

could be classified as a decision-making model (Hills, 1964) which is based on the recognition of certain educational paths which lead to various decision points.

In general it could be said that high school students follow various educational paths as defined by their high school curriculum program. During their careers in the secondary school, they are faced with both trivial and important decisions as they progress along these paths. Two of the more important decisions are: (a) whether or not to pursue post-secondary education and (b) if appropriate, which postsecondary institution to attend. The former decision is called the transition decision and the latter the institutional choice decision.

Decision theory (Edwards, Lindman, and Phillips, 1966) and motivation theory (Atkinson & Feather, 1966) suggest that many factors can influence both decisions. Earlier decisions, availability of information, perceived validity and reliability of the information, valued attributes of the alternate choices, and expected probability that certain outcomes will occur if particular decisions are made are just some of the factors which motivations and decision theory suggest are important influences on the decision-making process. Because the complete application of these theoretical decision-making models way beyond the scope of available resources, it was decided to focus on what is termed "limiting variables."

Limiting variables are those factors which compose the circumstances in which Kentucky seniors find themselves when faced with either the transition decision or the institutional choice decision and more

importantly, which constrict the path choices of students.

These limiting variables are not to be construed as causal factors in the transition and institutional choice decisions. Rather they simply place some boundaries on the future educational and career paths of students. Although these boundaries certainly exist, they are subject to removal, but the cost can be relatively high. For example, when deciding whether or not to enter postsecondary education, family income can be a limiting variable. That is, given unlimited family income, or no cost to the family for post-secondary education, the student could enter any institution for which he was otherwise eligible for admission. However, except for a limited number fo cases there is no complete freedom from financial concerns. Nevertheless, if family income is low and the cost of postsecondary education high, this limit of available family resources can be overcome by a variety of means including grants, loans, work, and so on. So while this report focuses on the limiting variables, they are limiting only in the broadest sense. They simply describe the circumstances of students with particular education and career plans after high school. One such circumstance has already been identified, the high school curriculum students follow.

Other limiting variables are past academic performance, family income, number of children in the family, number of dependent children in postsecondary education, knowledge of financial assistance for postsecondary education, and perceptions of the cost of postsecondary education. Each of these factors have the potential to prevent high school students from entering postsecondary education or attending their preferred postsecondary institution.

It is clear that a Kentucky senior who has followed a vocational technical high school curriculum pattern, who has received low grades, whose parents earn a low annual income, who has a large number of siblings, has no knowledge of financial assistance programs, and perceives postsecondary education as extremely high cost is not likely to enter postsecondary education. The questions are: How frequently does this occur and what is the relationship between these factors and the outcomes of the transition decision and the institutional choice decision? Thus, the study was designed to collect information about the magnitude of the role each of these potential limits plays in both the transition decision and the institutional choice decision.

Design

Because of the purpose of the study, information about the educational backgrounds, future plans, parental economic status and other factors which influence the decisions of Kentucky high school juniors and seniors was needed. Consequently, a special questionnaire was cooperatively constructed by The American College Testing Program (ACT) and KHEAA. KHEAA constructed the 121 item questionnaire by using ACT's item pool and by writing new items. The questionnaire was administered to a 10% random sample of Kentucky high school juniors and seniors in the Spring of 1973 by their high schools. The completed questionnaires were keypunched and keyverified and forwarded to ACT for analysis.

At ACT the analyses were conducted in two stages which paralleled the instrument and the purposes of the study. That is, the first set of

analyses focused on the factors associated with the decision to pursue or not pursue postsecondary education which has been called the transition decision. The second set of analyses focused on the institutional choice decision of those students who planned on pursuing postsecondary education. Moreover, the analyses were based on data only for seniors because it was believed the outcomes of their transition and institutional choice decisions would be more stable than those of the juniors.

In summary this is a report of the results of a survey of Kentucky high school seniors undertaken by KHEAA in cooperation with ACT. The objective of the study was to identify the roles various potential factors play in two decisions faced by the surveyed students. One such decision was whether or not to enter postsecondary education which is called the transition decision. The other is the institutional choice decision of the postsecondary bound students. The results of the analysis of the survey data are reported in the following two chapters each of which is devoted to one of the two decisions.

## CHAPTER II

## THE TRANSITION DECISION

The decision to pursue or not pursue postsecondary education and the limiting factors associated with this decision are discussed in this chapter. The discussion itself is organized around the results of a series of analyses which were conducted using two simple but effective analytical tools. The $X^2$ test of independence was employed to determine whether or not the observed differences between different groups of senior students are significant or due simply to chance.

The results of the analyses are frequently reported in the form of expectancy tables. This approach is most useful with survey data because it allows the observer to say "given this situation, e.g., a family income of $10,000, so many, e.g., 91 out of 100 students will be classified as PSB. This percentage can then be compared to other percentages for respondents in different circumstances. Thus, the expectancy table is appropriate when the central thrust of the investigation is focused on limiting variables. To prepare expectancy tables it was necessary to classify students according to their paths after high school, i.e., either postsecondary bound (PSB) or occupational bound (OB). Then the degree of independence between the two groups on each of seven factors could be ascertained.

Differences between the OB and PSB Students.

The differences between the OB and PSB students in their high school curriculum program, family income, number of children in the family, high

school average, high school rank in class, knowledge of financial aid sources, and expected costs are presented in this section.

The classification of students as either OB or PSB was done according to students' responses to the questionnaire. Student who indicated that they would enter some form of postsecondary education were classified as PSB's, the remainder were classified as OB's. Using this classification scheme, differences between the two groups on various factors are discussed below.

High school curriculum. It was anticipated that one of the best predictors of membership in the PSB or OB group would be the type of high school curriculum program the student pursued. Table 1 is an expectancy table which reflects this relationship.

According to the data in the table, a little over two-thirds of the Kentucky seniors indicated that they would enter some form of postsecondary education. This 68.1% figure can be compared to several other statistics. For example, Project Talent (Flanagan & Cooley, 1966) reported that 57% of their national sample continued their education after high school. Trent and Medsker (1968) reported that 54% of the men and 49% of the women in their national sample stated they planned to enter postsecondary education. When contacted the September after high school graduation, the percentages of students actually in postsecondary education were 50% for the men and 37% for the women. Thus, based on Trent and Medsker's study, Kentucky can expect that less than 68.1% of the state's seniors will actually enter postsecondary education with the greatest drop occuring among women.

Table 1

The High School Curriculum Program
and the Transition Decision

Expectancy Table

| High School Curriculum | Occupationally Bound | Postsecondary Education Bound | N | % |
|---|---|---|---|---|
| College Preparatory | 9 | 91 | 750 | 31.4 |
| Vocational-Technical | 54 | 46 | 205 | 8.6 |
| General or Combined | 36 | 64 | 979 | 41.0 |
| Business or Commercial | 54 | 46 | 227 | 9.5 |
| Agricultural or Farming | 63 | 37 | 30 | 1.2 |
| Other | 48 | 52 | 56 | 2.3 |
| No Distinction | 41 | 59 | 138 | 5.8 |
| N | 761 | 1624 | 2385 | |
| % | 31.9 | 68.1 | | |

Some striking differences in the proportions of students classified as OB and PSB were observed when their high school curriculum program was introduced into the analysis as shown in Table 1. It can be seen that 91% of the students who described their high school curriculum program as college preparatory indicated that they plan on entering postsecondary education. The same plans were reported by 64% of the students in general or combined curriculum programs and 59% of the students in high schools where no distinction was made among various programs of study. Less than half (46%) of the students in the business or commercial programs and 52% of the students in "other" programs were classified as PSB. The only case where enrollment in a particular high school curriculum program made it unlikely that the student would not plan to enter postsecondary education was for agricultural or farming where 37% of the students were classified as PSB. The frequency with which students in all high school programs might indicate they would pursue postsecondary education is sizeable even for the agricultural and farming group, which reflects the growing opportunity for postsecondary education through different kinds of educational programs in different kinds of postsecondary institutions.

High school average and rank in graduating class. Because of the expanding postsecondary educational programs and institutions, it is to be expected that the greater academic success students experience in secondary school the more likely they are to enter postsecondary education. Table 2 contains the survey data which is related to this expectation. The observed differences between the OB and PSB groups are in the expected direction and are statistically

Table 2

High School Average,
Rank in Graduating Class and
the Transition Decision

Expectancy Table

| High School Average | Occupationally Bound | Postsecondary Education Bound | N | |
|---|---|---|---|---|
| 90 to 100 | 13 | 87 | 420 | 17.5 |
| 80 to 89 | 27 | 73 | 1,135 | 47.4 |
| 70 to 79 | 46 | 54 | 722 | 30.2 |
| 60 to 69 | 73 | 27 | 49 | 2.0 |
| No GPA provided | 23 | 77 | 13 | .5 |
| Do not know | 55 | 45 | 55 | 2.3 |
| | 766 | 1628 | 2,394 | 100.0 |
| | $X^2$=199.5 | d.f.=5 | p<.01 | |
| Rank in Graduating Class | | | | |
| Top 25% | 15 | 85 | 780 | 32.9 |
| 2nd 25% | 34 | 66 | 904 | 38.1 |
| 3rd 25% | 47 | 53 | 576 | 24.3 |
| 4th 25% | 56 | 44 | 111 | 4.7 |
| | 758 | 1,613 | 2,371 | 100.0 |
| | $X^2$=141.069 | d.f.=3 | p<.01 | |

significant. That is, for the most part, students with high achievement records are more likely to enter postsecondary education than are other students.

Kentucky seniors with "C" averages in high school are about as equally likely to enter postsecondary education as not. In contrast, 87 out of every 100 "A" students will enter postsecondary education and 73 out of every 100 "B" students also plan on entering postsecondary education. Of the combined "A" and "B" students, about 23 percent have been classified as occupational bound.

The same kind of relationship exists in the expectancies associated with rank in class. Thus, in general it could be said that past academic achievement, taken by itself, is not related to the outcomes of the transition decisions of "C" students. On the other hand, it is clearly related to the outcomes of the transition decision of "A" and "B" students who are expecting to enter postsecondary education, and to the outcomes of the transition decision of "D" students, 75% of whom are occupationally bound.

Family income. To bolster the reliability of the students' responses to the questionnaire, special arrangements were made for parents to discuss several topics with the sample members before the latter completed the questionnaire. One of these topics was the annual income of the family.

The comparison between the distributions of the OB and PSB students reported family incomes are shown as expectancies in Table 3. A $X^2$ test of independence was conducted using the appropriate data reflected in the table. The results of this statistical test suggest that the observed differences in the

Table 3

Family Income and the Transition Decision

Expectancy Table

| Income | Occupationally Bound | Postsecondary Education Bound | N | % |
|---|---|---|---|---|
| $1,500 or less | 61 | 39 | 66 | 2.8 |
| 1,501 - 3,000 | 43 | 57 | 162 | 6.9 |
| 3,001 - 6,000 | 43 | 57 | 319 | 13.6 |
| 6,001 - 7,500 | 38 | 62 | 252 | 10.8 |
| 7,501 - 9,000 | 37 | 63 | 256 | 10.9 |
| 9,001 - 12,000 | 33 | 67 | 464 | 19.8 |
| 12,001 - 15,000 | 23 | 77 | 316 | 13.5 |
| 15,001 - 20,000 | 19 | 81 | 291 | 12.4 |
| 20,001 or more | 11 | 89 | 217 | 9.3 |
| | 746 | 1597 | 2343 | 100.0 |

$X^2 = 136.154$ d.f. = 8. $p < .001$

distributions of family incomes between the two groups are independent. That is, the PSB students are more likely to come from families with higher incomes than the OB students.

It can be seen in Table 3 that about half of the respondents were classified as OB and half as PSB when yearly family income was reported as being between $1,501 and $6,000. On the other hand, 60% of the students from families with $1,500 or less income per year were classified as OB. The converse is true for offspring from families whose yearly income ranges between $6,001 and $12,000. There was a strong relationship between family income and postsecondary path when the family income was reported as more than $12,000 per year. Here, more than 75% of the students were classified as PSB.

What does this mean? First, family income is clearly associated with an OB classification when family income is less than $1,500 annually. Otherwise, as family income increases the proportion of students who were classified as PSB increases. When compared to the college going rate of the population (68%); those offspring of families with less than $9,000 annual income are underrepresented in the PSB group. Conversely, offspring of families with more than $9,000 annual income are overrepresented. This suggests that if family income is considered as an index of socioeconomic status, there is a relationship between the outcomes of the transition decision and socioeconomic status, and the relationship is fairly strong.

Family Income and the High School Curriculum

Because of the relationship between family income and the outcomes of the transition decision, it was decided to investigate another relationship. In this section the relationship between family income and the earlier decision of the high school curriculum program to pursue is discussed.

To determine the relationship between income and high school curriculum program, the seniors were divided into two curriculum groups--college preparatory and "other." The distributions of family income as reported by the two groups are presented as expectancies in Table 4.

According to the data in the table about 30% of the surveyed seniors reported they were in high school programs classified as college preparatory. Moreover, as family income increases, the proportion of students in college preparatory programs increases while the proportion of students in other programs decreases. Clearly, there is a relationship between family income and the high school curriculum program.

The table has added significance when it is remembered that 91% of the college preparatory students were classified as PSB while only about 50% of the other students were classified as PSB. On the basis of this data it could be hypothesized that during the early high school years, family income and the associated socioeconomic factors income represents, is a limit on the kind of high school curriculum program students pursue. In fact, compared to the proportion of the population in college preparatory programs (29.7%), it can be seen that offspring of families whose income is less than $9,000 are underrepresented in college preparatory programs and vice versa.

Table 4

Family Income and
High School Curriculum

Expectancy Table

| Family Income | High School Curriculum | |
|---|---|---|
| | College Preparatory | Other |
| $1,500 or less | 9.5 | 90.5 |
| 1,501-3,000 | 13.2 | 86.8 |
| 3,001-6,000 | 18.7 | 81.3 |
| 6,001-7,500 | 21.5 | 78.5 |
| 7,501-9,000 | 21.8 | 78.2 |
| 9,001-12,000 | 29.6 | 20.4 |
| 12,001-15,000 | 36.2 | 63.8 |
| 15,001-20,000 | 45.8 | 54.2 |
| 20,001 or more | 52.1 | 47.9 |
| N | 683 | 1617 |
| % | 29.7 | 70.3 |

Because there are no large differential costs associated with different high school programs, it cannot be said that the cost of the programs are a determining factor in the imbalance of representation of students from different family income levels. Thus, it seems plausible to conclude that other factors are more important.

Some of those factors might be parental educational and career attitudes, expectations and aspirations for their children and the offspring's past academic experiences. Of course, one of these factors might be the cost of college.

If the cost of college is a limiting factor in this early decision-making process, and there is no data to suggest that it is a major factor, it could play a potent role. The reason for its potency could come from the relative lack of knowledge about financial aid programs by parents of high school freshmen. But what evidence is there that parents of high school freshmen and the freshmen themselves are uninformed about financial assistance programs?

The survey has no direct evidence about the level of sophistication of high school freshmen about financial aid. But they surely are no better informed than high school seniors and it has already been shown that the seniors' level of knowledge is not very great. Thus, the results of the survey do not suggest that cost of postsecondary education is not an important factor in the selection of a high school curriculum program. The results do suggest, however, that this possibility be investigated. Moreover, it may be beneficial to distribute information about financial

assistance programs to high school freshmen and their parents in the off chance that the cost of postsecondary education plays a significant role in the selection of a high school curriculum program.

Number of children in the family. The cost of raising a family obviously varies with the number of children. Likewise, the available resources to support an offspring in postsecondary education varies according to the number of children in postsecondary education. The relationship between these two factors and the transition decision is discussed in this section.

The data in Table 5 shows that a little over two-thirds of seniors who come from families with 4 or less children were classified as PSB. Moreover, if there are 5 or 6 children in the family, the senior is equally likely to be classified as an OB or PSB student. Consequently, if the cost of raising a family influences the transition decision, it appears as though it may be important for only very large families.

There is a stronger relationship when the number of brothers and sisters in postsecondary education increases. An interesting pattern can be observed in the second part of Table 5. Here, if one other child is in postsecondary education, the highest expentancy for respondent to be a PSB student is observed. When more than three brothers and sisters are in postsecondary education, the chances that the respondent will be classified as PSB drop markedly but never below 50-50. However, there is a marked increase in the chances of going to college when 4 or more children are in college. All in all it could be said that the number of children in a family does not play a singularly important role in the transition decision.

Table 5

The Number of Children in the Family, the Number of Siblings in Postsecondary Education and the Transition Decision

Expectancy Tables

| Number of Children in the Family | Occupationally Bound | Postsecondary Education Bound | N | % |
|---|---|---|---|---|
| 1 | 31 | 69 | 580 | 29.5 |
| 2 | 31 | 69 | 556 | 28.3 |
| 3 | 31 | 69 | 329 | 16.7 |
| 4 | 31 | 69 | 218 | 11.1 |
| 5 | 42 | 58 | 127 | 6.4 |
| 6 | 44 | 56 | 66 | 3.4 |
| 7 or more | 33 | 67 | 89 | 4.5 |
| | 633 | 1332 | 1965 | |
| | $X^2$=18.977 | d.f.=6 | p<.001 | |
| **Number of Siblings in Postsecondary Education (not including the respondent)** | | | | |
| 0 | 32 | 68 | 1434 | 62.9 |
| 1 | 25 | 75 | 423 | 18.5 |
| 2 | 34 | 66 | 213 | 9.3 |
| 3 | 48 | 52 | 110 | 4.8 |
| 4 | 33 | 67 | 48 | 2.1 |
| 5 or more | 47 | 53 | 53 | 2.3 |
| | 728 | 1553 | 2281 | |
| | $X^2$=22.183 | d.f.=5 | p<.001 | |

Knowledge of sources of financial assistance. If the number of children a family has in postsecondary education was a major determinant in the outcomes of the transition decision at one time, it apparently has been negated by existing financial assistance programs. In this section the amount of exploration of aid programs by OB and PSB students is discussed. There are two concerns inherent in this discussion. The first is, are the OB students less informed than the PSB students? and secondly, how well informed are the PSB students in general?

Table 6 contains the data which answers these two questions. Based on this data it can be said that the PSB bound students are more knowledgeable about the College Work-Study and Institutional Aid programs than are the OB students. In contrast, the OB students are more knowledgeable about the Law Enforcement Education, Social Security and Veterans Benefits programs. The two groups of students were found to be equally knowledgeable (or equally uninformed) about the Basic Educational Opportunity Grants, National Defense Student Loan, Supplemental Educational Opportunity Grants, State Scholarship, Federally Insured Student Loan, and Health Professions Loan programs. Because of these differences it can be concluded that lack of knowledge about assistance programs does not appear to be a major factor in the transition decision making process. If this were not true, the OB students would not have known about more programs than PSB students which is clearly the case.

Expected cost of postsecondary education. Just as lack of knowledge about financial assistance programs could act as a constraint on the

Table 6

Knowledge of Financial Assistance Sources and the Transition Decision in Percentages

| Received Information from | | N | Yes | No | $X^2$ |
|---|---|---|---|---|---|
| Basic Educational Opportunity Grants | OB | 759 | 16.9 | 83.1 | |
| | PSB | 1,620 | 19.1 | 80.9 | 1.76 |
| College Work-Study | OB | 759 | 30.7 | 69.3 | |
| | PSB | 1,619 | 38.0 | 62.0 | 12.17 |
| National Defense Student Loan | OB | 759 | 26.0 | 74.0 | |
| | PSB | 1,619 | 25.6 | 74.4 | .03 |
| Supplemental Educational Opportunity Grants | OB | 759 | 16.5 | 83.5 | |
| | PSB | 1,621 | 15.0 | 85.0 | .85 |
| State Scholarship | OB | 759 | 37.2 | 62.8 | |
| | PSB | 1,621 | 41.9 | 58.1 | 4.82 |
| Federally Insured Student Loan | OB | 757 | 25.6 | 74.4 | |
| | PSB | 1,620 | 27.4 | 72.6 | .84 |
| Health Professions Loan | OB | 758 | 21.5 | 78.5 | |
| | PSB | 1,620 | 18.5 | 81.5 | 2.93 |
| Law-Enforcement Education Program | OB | 758 | 18.7 | 81.3 | |
| | PSB | 1,621 | 14.1 | 85.9 | 8.33 |
| Social Security | OB | 759 | 21.6 | 78.4 | |
| | PSB | 1,619 | 15.5 | 84.5 | 13.33 |
| Veterans Administration Benefits | OB | 759 | 25.2 | 74.8 | |
| | PSB | 1,619 | 18.3 | 81.7 | 15.06 |
| Institutional Aid Programs | OB | 758 | 31.3 | 68.7 | |
| | PSB | 1,620 | 42.3 | 57.7 | 26.41 |
| | $X^2$ = 6.6 | | p=.05 | d.f.=1 | |

transition decision, the expected cost of postsecondary education is a potential barrier. Thus, several analyses were conducted to determine the degree of difference between the expection of cost between the OB and PSB students.

Before such comparisons were made, it was necessary to determine whether or not the OB and PSB students aspire to different kinds of post-secondary institutions since there are differential costs associated with attending different types of institutions. As shown in Table 7, there are differences in the types of institutions the two groups reported as being the type of institution they expected to attend. In this regard, the OB students were asked to record the institution they would most likely attend if they were to enter postsecondary education. The OB students indicated vocational-technical colleges with greater frequency than did the PSB students. Consequently, it was necessary to compare the two groups of students' expected costs by type of institution.

Detailed tables regarding the expected costs for tuition and fees, books and supplies, food and housing, travel, medical, clothing, and other personal expenses are shown in the Appendix A. These data are summarized in Table 8 which is composed of the median expected costs by the two groups by type of institution and expense item.

There are some major differences in the median expected costs between OB and PSB students. First, the differences between the sums of the median expected costs for the two groups of students vary according to type of institution. There is a $53.5 difference between the OB and PSB

Table 7

Type of Institution Chosen
by OB and PSB Students

| | OB | PSB |
|---|---|---|
| In State | | |
| Major Public University | 11.3 | 13.3 |
| Regional University | 27.5 | 34.1 |
| Community College, Public | 15.3 | 15.0 |
| Four Year, Private | 7.2 | 5.9 |
| Two Year, Private | 2.8 | 2.4 |
| Out of State | | |
| Four Year | .4 | 8.1 |
| Two Year | 1.2 | 1.6 |
| Other | 4.1 | 2.5 |
| Other - Public and Private Vocational-Technical Institutions | 30.3 | 17.0 |
| Total N | 753 | 1614 |

$X^2 = 111.6$ d.f. = 8 $p < .001$

Table 8

Median Expected Costs of Postsecondary Education by Type of Institution

| | Major Univ. | | Regional Univ. | | Comm. College | |
|---|---|---|---|---|---|---|
| | OB | PSB | OB | PSB | OB | PSB |
| Tuition & Fees | $634.5 | $749.5 | $474.5 | $507.0 | $367.5 | $431.5 |
| Books & Supplies | 112.5 | 114.5 | 112.5 | 108.5 | 93.5 | 88.5 |
| Food & Housing | 406.5 | 624.5 | 315.5 | 374.5 | 187.5 | .5 |
| Medical | 90.0 | 38.5 | 70.5 | 37.5 | 56.0 | 18.0 |
| Travel | 186.5 | 83.5 | 155.5 | 87.5 | 122.5 | 77.0 |
| Clothing | 230.5 | 156.5 | 192.5 | 149.5 | 171.5 | 135.5 |
| Other | 192.5 | 139.5 | 169.5 | 110.5 | 144.5 | 91.5 |
| Total | $1,853.0 | 1,906.5 | 1,490.5 | 1,375.0 | 1,143.0 | 842.5 |
| Difference | $53.5 | | 115.5 | | 300.5 | |

students whose type of institution was a major public university. This difference is relatively small when compared to the differences for other students. For example, the total median expected cost for OB students who would enter a regional public university if they entered postsecondary education was $115.5 higher than PSB with the same plans. However, the difference between total median expected costs of community colleges expressed by OB and PSB is more than twice this amount. The difference is $300.5 with the OB students expecting higher costs than the PSB students.

While these differences in the sums of the median costs are important, there are distinct patterns of differences in expected costs by the nature of the anticipated expenditure. Regardless of the type of institution, there were differences in median expected costs between the two groups for tuition and fees, medical, travel, clothing, and other personal expenses.

The median expected tuition and fees figures were lower for the OB than the PSB students. In contrast, the median expected costs for travel, clothing, and other personal expenses were higher for the OB than the PSB students. This pattern suggests that the expected costs of tuition and fees, books and supplies, and food and housing are not related to the outcomes of the transition decision. But the "community college" OB students who expected a relatively high cost for food and housing ($187.5 as compared to PSB students who expected no cost) may have been indicating that they were expected to support themselves after high school graduation. Nevertheless, the most revealing differences between the two groups of students may lie in their expected medical, travel, clothing and other

personal expenses. Because the median expected costs for these items are higher for the OB students, it could be hypothesized that they see a high cost associated with social competition. That is, adjusting and successfully competing within the social environment on a campus would require considerable expenditures. This interpretation of the pattern of differences suggests that while the total expected cost of postsecondary education is related to the outcomes of the transition decision for prospective regional university and community college students, certainly their ability to compete socially may be.

Summary. There are marked differences in the proportions of students who were classified as PSB or OB by their high school curriculum, their high school average, their family income, and their knowledge of financial assistance sources. These observed differences lead to the conclusion that each factor operates somewhat differently as a constraint on the transition decision.

The only high school curriculum program which might be classified as a limit on the transition decision would be the agricultural-farming programs. Considerably more students in this program were classified as OB (63%) than PSB (37%). All other students were at least equally likely to indicate they planned on entering postsecondary education as follow an occupationally oriented path. Even so, it is difficult to conceive the agricultural high school curriculum as a constraint on the transition decision. Rather it is more appropriate to view the programs as leading to expected outcomes of the transition decision.

Low high school grades may account for deviation from expected paths. It was found that 73% of Kentucky seniors with "C" averages were classified as OB. In contrast 23% of the "A" and "B" seniors were classified as OB. This percentage raises a question of the existence of economic barriers to postsecondary education for these high achieving students.

In fact it was observed that family income was related to the outcome of the transition decision. Its greatest impact as a constraint occurred when family income was $1,500 a year or less. Only 39% of the seniors from such families were classified as PSB in contrast to the 89% so classified whose family income was $20,001 or more.

In a similar economic vein, it was determined that unless the number of siblings in the family was 6 or more, the number of siblings in a family had no impact on the transition decision. Moreover, the number of siblings in postsecondary education was found to have a marginal effect on the transition decision.

And finally, it was observed that OB seniors were aware of more sources of financial assistance than were the PSB students. Nevertheless, the PSB students were more likely to have knowledge of the primary sources of College Work-Study and Institutional Aid programs.

All of these observations are insightful but raise additional questions. These questions are all related to that issue raised earlier: identifying those factors which are associated with deviation from expected paths, the topic of the next section.

Deviation from Expected Paths

It was posited earlier that high school curriculum programs can be defined as particular educational paths that have some relevance to the choice of paths after high school. In this case, there is a postsecondary education path associated with being in college preparatory programs, general and combined programs and in high schools where no distinctions were made among curriculum programs. On the other hand the typical path for agriculture and farming students is toward occupations. Accordingly, the topics of the following discussion are those factors which are associated with deviation from expected paths of students in the college preparatory, general and combined and other high school curriculum programs.

College preparatory students. The central hypothesis which was investigated in this and the following two sections is that deviation from the expected educational and career path after high school is related to per capita income and the high school averages of the seniors. Per capita income of the family was estimated for each respondent by dividing the number of children and parents in the family into their reported annual income. Annual income was assumed to be the midpoint of the intervals of the family income responses in the questionnaire. This per capita income estimate was crosstabulated with the self-reported high school averages.

The results of this crosstabulation procedure for seniors in college preparatory programs are shown in Table 9. The contents of the table are the percentages of students classified as PSB in each cell.

Table 9

Percentage of College Preparatory Seniors Classified as PSB by Per Capita Income and High School Average

| High School Average | Per Capita Income $0 - 1,000 | $1,000 - 2,000 | $2,000 - 3,000 | $3,000 - 4,000 | $4,000 + | N | % of Average |
|---|---|---|---|---|---|---|---|
| 90-100 | 75.0 | 94.1 | 97.1 | 100.0 | 100.0 | 97 | 96.0 |
| 80-89 | 75.0 | 79.5 | 85.4 | 95.2 | 87.8 | 153 | 84.5 |
| 70-79 | 70.6 | 81.2 | 60.0 | 63.6 | 83.3 | 60 | 69.8 |
| N OB | 13 | 12 | 20 | 5 | 8 | | |
| N PSB | 36 | 60 | 93 | 41 | 80 | | |
| % PSB by Income | 73.5 | 83.3 | 82.3 | 89.1 | 90.9 | | |
| % of Total | 13.3 | 19.6 | 30.7 | 12.5 | 23.9 | | |
| % PSB of Total | 84.2 | | | | | | |
| % OB of Total | 15.8 | | | | | | |

The data in the margins of the table show (a) a direct relationship between level of per capita income and the percentage of students classified as PSB, and (b) an inverse relationship between high school average and the proportions of students classified as PSB. For example, 69.8% of the "C" students were classified as PSB while 96.0% of the "A" students were classified as PSB. And, 73.5% of the seniors in the $0-1,000 per capita income range were classified as PSB while 90.9% of the seniors in the $4,000 and more interval were classified as PSB. Consequently, both per capita income and high school average are related to the outcomes of the transition decision for college preparatory seniors.

If both factors are related, it follows that when taken in combination their effects are even greater. To demonstrate this expectation, a line has been drawn through the body of the table. This line separates those cells with percentages greater than the subpopulation PSB percentage from cells with lower percentages than the subpopulation.

The degree of variability in the figures on either side of the line is an index of the complex nature of the interaction of per capita income and high school grades on the transition decision. Nevertheless, several observations should be noted, First, none of the percentages in the "C" row reach the percentage of PSB in the college preparatory subpopulation (although the 83.3% in the $4,000 and over interval comes very close to the 84.2% for the population)[1]. Secondly, none of the percentages

[1]It will be recalled that when high school curriculum and the outcomes of the transition decision were crosstabulated earlier 91% of the college preparatory students were classified as PSB. The difference between the 84.2% used here and the 91% is due to the exclusion of students who indicated their high school grades were either "60-69, no GPA given, or do not know." This difference will occur again in the following sections and occurs for the same reason.

in the $0-1,000 per capita income column reach the percentage of all college preparatory students classified as PSB. Moreover, there are more cells with higher percentages than the subpopulation percentage in the "A" and "B" rows than cells with lower percentages. These observations suggest that given a per capita income of over $2,000 a year, grades may account for a significant proportion of the deviation from the expected path. When per capita income is between $2,000-3,000 only those students with the highest grades will plan to enter postsecondary education with a frequency comparable to the subpopulation of other college preparatory students. And under no circumstance is the PSB rate comparable to the subpopulation rate when per capita income is less than $1,000.

General and combined students. The analysis of the percentages of PSB students conducted on seniors in college preparatory programs was repeated for seniors in general and combined high school curriculum programs. The results are presented in Table 10.

As in the preceding table, the margins of the table reveal (a) an inverse relationship between the proportions of students classified as PSB and high school grades from 75.3% for "A" students to 38.4% for "C" students, and (b) a direct relationship between the proportion of PSB students and per capita income. Thus, both factors are related to the outcomes of the transition decision.

However, unlike the previous table, there is no row or column in which the percentage of PSB students in a cell is not greater than the PSB percentage (48.3%) for the subpopulation of seniors in general and combined

Table 10

Percentage of "General and Combined" Seniors Classified as PSB by Per Capita Income And High School Average

| High School Average | Per Capita Income $0-1,000 | $1,000-2,000 | $2,000-3,000 | $3,000-4,000 | $4,000+ | N | % by Average |
|---|---|---|---|---|---|---|---|
| 90-100 | 50.0 | 85.0 | 75.0 | 100.0 | 91.7 | 61 | 75.3 |
| 80-89 | 32.1 | 47.3 | 49.4 | 70.6 | 76.0 | 131 | 50.2 |
| 70-79 | 27.4 | 28.1 | 46.0 | 44.1 | 59.5 | 104 | 38.4 |
| N OB | 102 | 78 | 86 | 29 | 22 | 317 | |
| N PSB | 47 | 61 | 92 | 44 | 52 | 296 | |
| % PSB | 31.5 | 43.9 | 51.7 | 60.3 | 70.3 | | |
| % Total | 24.3 | 22.7 | 29.0 | 11.9 | 12.1 | | |
| % PSB for Total | 48.3 | | | | | | |
| % OB for Total | 51.7 | | | | | | |

high school curriculum programs. Consequently, even for seniors from families with the lowest per capita income, if they experience substantial success in high school they are more likely to be classified as PSB than OB. Conversely, if per capita income is $4,000 or more, students are more likely to be classified as PSB than OB even with "C" high school averages.

Moreover, if grades accounted for more of the deviation from the expected paths of the college preparatory seniors, they certainly account for more deviation for the seniors in the combined and general high school programs. This hypothesis comes from simply counting the number of cells above the line in Table 10 as compared to the number of above the line in the preceding table. If this hypothesis is true, it implies that income has a smaller relationship with deviation from the expected postsecondary path for the "general and combined" seniors than the college preparatory seniors.

Other students. All the per capita income and high school grade data for all students other than those in the college preparatory and general and combined high school programs were subjected to the same analysis as in the preceding two sections. However, in this case the percentages shown in the body of Table 11 are the percentages of seniors in the cell classified as OB. This change was made to emphasize that the expected outcome of the transition decision for these students was OB.

It can be seen in the right hand margin that high school average is directly related to the proportion of students classified as OB. Obviously,

Table 11

Percentage of "Other" Seniors
Classified as OB by Per Capita Income
And High School Average

| High School Average | Per Capita Income $0-1,000 | $1,000-2,000 | $2,000-3,000 | $3,000-4,000 | $4,000+ | N | % by Average |
|---|---|---|---|---|---|---|---|
| 90-100 | 66.7 | 69.2 | 83.3 | 57.9 | 50.0 | 30 | 69.8 |
| 80-89 | 67.4 | 71.2 | 64.3 | 57.9 | 63.0 | 140 | 66.7 |
| 70-79 | 70.8 | 59.3 | 66.0 | 31.6 | 50.0 | 130 | 61.0 |
| N OB | 87 | 96 | 70 | 17 | 30 | | |
| N PSB | 39 | 49 | 34 | 21 | 33 | | |
| % OB | 69.0 | 66.2 | 67.3 | 44.7 | 56.6 | | |
| % Total | 27.0 | 31.1 | 22.3 | 8.2 | 11.4 | | |
| % OB of Total | 64.4 | | | | | | |
| % PSB of Total | 35.6 | | | | | | |

this is a marked contrast with the relationship between grades and the proportions of college preparatory and "general and combined" seniors classified as OB. One of the explanations for the direct relationship for other students is relatively straight forward. That is, the grades are fair indices of how employable these students are. Thus, those with lower grades believe they need additional training before entering the labor force and plan to seek that training in a postsecondary educational institution.

Nevertheless, per capita income is inversely related to the proportion of OB students which was also true for those students in college preparatory and general and combined high school programs. Simply judging from the magnitude of the differences in the marginal percentages, it could be said that neither grades nor per capita income is as related to the outcomes of the transition decision for these seniors as for the others.

Even the figures in the body of the table appear to support this observation. There appears to be less variability among the percentages than in the preceding two tables and the demarkation line divides the table almost exactly in half. Of course, the confounding effect of the direct relationship between grades and the percentages of students classified as OB makes these observations tenuous.

Summary. Deviation from expected postsecondary career and educational paths were found to be related to both per capita income and academic success in high school among seniors in different high school curriculum programs. For those in college preparatory and general and combined programs, their chances of deviating from the PSB path after high school

increased as per capita income decreased and high school grades decreased.

However, judging from the differences in chances of being classified as PSB by per capita income and high school grades, it could be said that grades appeared to be more related to deviation than income for those in college preparatory and general and combined curriculum programs. But income may have a greater relationship to deviation for the college preparatory students than for students in general and combined programs.

These statements should be considered as the basis for further investigation of the role of grades and family income in the transition decision. Just as it cannot be concluded from this data that giving students higher grades will alter the postsecondary plans of students, neither can it be concluded that increasing family income indirectly through financial assistance programs alter their plans. Just because the chances of being classified as PSB did not equal the PSB rate for the population in particular per capita income intervals for the better students is not sufficient justification for judging family income as an effective barrier to postsecondary education. The most that can be said is that these students are underrepresented in the PSB group, the group on which the following chapter was focused.

# CHAPTER III

## THE INSTITUTIONAL CHOICE DECISION

The factors which influence the college choice process have been investigated by a number of authors (Bowers & Pugh, 1973; Kerr, 1962; Morrison, 1968; Seron, 1967; Stordahl, 1970; Trent, 1965). However, they have all been concerned with the college choices of students entering traditional higher education institutions. In this chapter, the outcomes are much broader because all types of educational institutions were represented in student's indications of the institutions they were most likely to attend.

In addition to the relationship between various high school experiences and socioeconomic factors and the outcomes of the institutional choice process, two other topics are discussed in this chapter. The congruence between the expected cost of postsecondary education as indicated by seniors and the actual cost is discussed. Furthermore, the relationships among family income, expected costs, expected family contribution, and actual costs are presented. Thus, this chapter is divided into three major sections and begins with discussions of various factors related to the type of institutions seniors anticipated attending.

### Type of Institution Chosen

For the purposes of this report, it was assumed that those factors which influence the institutional selection decision were more likely to be related to the type of institution selected than the particular institution itself. The rationale behind this assumption was founded on the belief that there are probably greater differences among types of institutions than

among individual institutions within the same type classification. The institutions students reported as those they were most likely to attend were grouped into types according to the classifications presented in Table 12. Once this classification procedure was completed, differences among students in different type classifications were determined beginning with type of high school curriculum.

Type of high school curriculum. According to the data in Table 13, more (41.2%) Kentucky seniors reported that they were most likely to enter one of the state's regional universities than any other type of institution. The next most frequently indicated their type of institution was a Kentucky community college (18.0%) followed by one of the major state universities (16.2%). A total of 14.1% of the students selected an out-of-state institution. In total then, a little more than 85% of the seniors planned to pursue postsecondary education within the state.

Because the regional public institution was the type of institution most often selected by the students in the survey, it is not surprising to find that these same institutions were the most frequent choice of students regardless of their high school curriculum. The second most frequently selected institution reported was the community college by the students in vocational-technical, general or combined, business-commercial, and "no distinction" students. The only variance to this pattern were the college preparatory, agriculture-farming, and "other" students who selected a major university with more frequency than any other type except the regional institution.

Table 12

Classification of Kentucky Postsecondary Institutions According to Type

| Major Public University | Regional Public University | Public Community Colleges | Private Four-Year Colleges | Private Two-Year Colleges |
|---|---|---|---|---|
| University of Kentucky | Eastern Kentucky | Ashland | Asbury | Alice Lloyd |
| University of Louisville | Kentucky State | Elizabethtown | Bellarmine | Lees Junior |
| | Morehead State | Hazard | Berea | Lindsey Wilson |
| | Murray State | Henderson | Brescia | Midway |
| | Northern Kentucky | Hopkinsville | Campbellsville | Saint Catharine |
| | Western Kentucky | Jefferson | Centre | Southeastern Christian |
| | | Lexington Tech | Cumberland | Sue Bennett |
| | | Madisonville | Georgetown | |
| | | Maysville | Kentucky Wesleyan | |
| | | Paducah | Pikeville | |
| | | Prestonsburgh | Spalding | |
| | | Somerset | Thomas More | |
| | | Southeast | Transylvania | |
| | | | Union | |

Table 13

High School Curriculum Program and
the Type of Institution of Expected Enrollment

| | In State | | | | | Out of State | | | N |
|---|---|---|---|---|---|---|---|---|---|
| | Public | | | Private | | | | | |
| | Maj. Univ. | Reg. Univ. | Comm. Coll. | 4 yr. | 2 yr. | 4 yr. | 2 yr. | Other | |
| College Prep. | 21.8 | 39.8 | 15.2 | 7.5 | 1.9 | 11.0 | 1.6 | 1.3 | 638 |
| Voc-Tech | 12.8 | 36.2 | 23.4 | 8.5 | 2.1 | 4.3 | 4.3 | 8.5 | 47 |
| Gen-Comb. | 10.5 | 43.1 | 20.4 | 6.1 | 4.3 | 9.3 | 2.0 | 4.3 | 494 |
| Bus-Comm | 14.5 | 46.4 | 21.7 | 4.3 | 1.4 | 2.9 | 4.3 | 4.3 | 69 |
| Ag-Farm | 22.2 | 33.3 | 11.1 | | 11.1 | | | 22.2 | 9 |
| Other | 22.2 | 33.3 | 11.1 | 16.7 | | 11.1 | | 5.6 | 18 |
| No Distinction | 5.0 | 41.7 | 21.7 | 11.7 | 3.3 | 11.7 | 1.7 | 3.3 | 60 |
| N | 216 | 550 | 240 | 95 | 38 | 129 | 26 | 41 | 1335 |
| % | 16.2 | 41.2 | 18.0 | 7.1 | 2.8 | 9.7 | 1.9 | 3.1 | |

These choice patterns appear to be fairly typical. The college preparatory students were likely to enter institutions according to this order: (a) regional university, (b) major university, (c) community college, and (d) 4-year out-of-state. A similar pattern is evident for the general or combined students except the positions of the community college and major university are reversed. In general it could be said that regardless of students' high school curriculum, the regional state university is the most frequent type of institution chosen. Thereafter there is a varying but fairly small relationship between type of high school curriculum and type of institution chosen.

Nevertheless, type of high school curriculum appears to be related to the type of postsecondary institution selected. That is, students in high school programs other than college preparatory are more likely to plan to attend community colleges than the major state universities if they do not plan to enter the regional university.

High school average. A discernable pattern of relationships between high school average and type of chosen institution is evident in Table 14. First, because only 8 PSB seniors reported that they had D averages, the associated figures should be viewed with caution. Thus, only the data for the "A", "B", and "C" students will be discussed. It can be said that regardless of students' grades, they are most likely to declare a regional university as their expected institution of attendance.

However, if the regional university is not so stated, the type of institution which they intend to enter varies according to their self-reported

Table 14

High School Average and the Type of Institution of Expected Enrollment

Expectancy Table

| | In State | | | | | Out of State | | | N |
|---|---|---|---|---|---|---|---|---|---|
| | Public | | | Private | | | | | |
| | Maj. Univ. | Reg. Univ. | Comm. Coll. | 4 yr. | 2 yr. | 4 yr. | 2 yr. | Other | |
| 90-100 | 20.0 | 37.9 | 12.4 | 9.7 | 2.6 | 15.3 | .6 | 1.5 | 340 |
| 80-89 | 17.7 | 40.1 | 20.5 | 5.9 | 2.5 | 8.1 | 2.2 | 3.1 | 683 |
| 70-79 | 7.8 | 45.9 | 20.8 | 7.1 | 3.2 | 8.1 | 3.2 | 3.9 | 283 |
| 60-69 | 12.5 | 62.5 | | | 12.5 | | | 12.5 | 8 |
| Not Provided | | 62.5 | | 25.0 | | 12.5 | | | 8 |
| Do Not Know | 23.5 | 41.2 | 5.9 | | 11.8 | | | 17.6 | 17 |

grades. For example, "A" students are about as equally likely to enter an out-of-state university as one of the major state universities. The "B" student is less likely to go out of state. In fact, the "B" students were about equally likely to prefer the community colleges as the major state universities. On the other hand, "C" students more frequently indicated they would attend community colleges than the major state university if regional universities were not expected institutions of attendance.

Thus, it is clear that the better students were more likely to indicate a university as their expected institution of attendance. Moreover, the better students were much more likely to plan to attend an out-of-state 4-year institution. If the students intend to remain in state and expect to attend an institution other than a regional university, a definite relationship exists between past academic achievement and type of institution chosen. "A" students plan to enter the major state universities, the "B" students plan to enter either community colleges or major state universities, and "C" students plan to enter community colleges.

Family income. The type of institution students are most likely to attend appears to be related to family income, particularly at the extreme end of the family income range. The data in Table 15 leads to the observation that when family income surpasses $12,000 per year, students are more likely to enter one of the major state universities than if the family income is below $12,001. Moreover, when the family income is greater than $20,000 the student is about as equally likely to enter an out-of-state 4-year institution as enter one of the major universities.

Table 15

Family Income and Type of Institution of Expected Enrollment

Expectancy Table

| Family Income | In State: Public: Maj. Univ. | In State: Public: Reg. Univ. | In State: Public: Comm. Coll. | In State: Private: 4 yr. | In State: Private: 2 yr. | Out of State: 4 yr. | Out of State: 2 yr. | Out of State: Other | N |
|---|---|---|---|---|---|---|---|---|---|
| $1,500 or less | | 60.0 | 15.0 | 10.0 | 10.0 | | 5.0 | | 20 |
| 1,501-3,000 | 15.1 | 49.1 | 15.1 | 5.7 | 3.8 | 5.7 | 1.9 | 3.8 | 53 |
| 3,001-6,000 | 5.9 | 40.4 | 22.8 | 11.0 | 8.8 | 5.1 | 2.2 | 3.7 | 136 |
| 6,001-7,500 | 7.4 | 42.1 | 31.4 | 6.6 | 4.1 | 5.8 | .8 | 1.7 | 121 |
| 7,501-9,000 | 11.8 | 45.7 | 21.3 | 2.4 | 1.6 | 7.9 | 3.9 | 5.5 | 127 |
| 9,001-12,000 | 13.4 | 43.1 | 20.6 | 7.5 | 2.0 | 9.1 | 1.6 | 2.8 | 253 |
| 12,001-15,000 | 20.4 | 41.7 | 17.5 | 6.8 | 2.9 | 5.3 | 2.4 | 2.9 | 206 |
| 15,001-20,000 | 22.9 | 40.5 | 13.3 | 5.2 | 1.0 | 13.8 | 1.0 | 2.4 | 210 |
| 20,001 or more | 25.8 | 29.6 | 8.6 | 9.7 | 1.1 | 19.9 | 2.2 | 3.2 | 186 |

Column Percentages

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1,500 or less | | 2.2 | 1.3 | 2.2 | 5.3 | | 3.8 | | |
| 1,501-3,000 | 3.8 | 4.8 | 3.3 | 3.2 | 5.3 | 2.4 | 3.8 | 5.0 | |
| 3,001-6,000 | 3.8 | 10.2 | 13.0 | 16.1 | 31.6 | 5.5 | 11.5 | 12.5 | |
| 6,001-7,500 | 4.2 | 9.5 | 15.9 | 8.6 | 13.2 | 5.5 | 3.8 | 5.0 | |
| 7,5001-9,000 | 7.1 | 10.8 | 11.3 | 3.2 | 5.3 | 7.9 | 19.2 | 17.5 | |
| 9,001-12,000 | 16.0 | 20.3 | 21.8 | 20.4 | 13.2 | 18.1 | 15.4 | 17.5 | |
| 12,001-15,000 | 19.8 | 16.0 | 15.1 | 15.1 | 15.8 | 8.7 | 19.2 | 15.0 | |
| 15,001-20,000 | 22.6 | 15.8 | 11.7 | 11.8 | 5.3 | 22.8 | 7.7 | 12.5 | |
| 20,001 or more | 22.6 | 10.2 | 6.7 | 19.4 | 5.3 | 29.1 | 15.4 | 15.0 | |
| N | 212 | 537 | 239 | 93 | 38 | 127 | 26 | 40 | 1,312 |
| % | 16.2 | 40.9 | 18.2 | 7.1 | 2.9 | 9.7 | 2.0 | 3.0 | |

If the cost of postsecondary education were related to the outcomes of the institutional choice process, it could be expected that a family income increases, the numbers of students choosing community colleges decreases. This pattern occurs when family income ranges between $6,001 to $20,000 or more. This decrease is accompanied with an increase in the proportions of students planning to attend the major state universities or go out of state to a 4-year institution.

What does this mean for Kentucky public institutions? It means that there appears to be a definite relationship between income and type of institution. The major universities attract the most affluent students, the regional universities attract the second most affluent students and the community colleges attract the least affluent. Nevertheless, about 20% of the students planning on entering one of the state's major universities reported their family's income as less than $9,001. Over one-third of the students planning to enter a regional university and 44.8% of the students planning on entering a community college reported their family's income was less than $9,001. Thus, there is a greater difference between family income levels of prospective major university students and prospective regional university students than between the latter group and the prospective community college students. So in terms of family income, regional university prospective students are more like community college prospective students than they are like major university prospective students. In any event, family income appears to be clearly related to the outcomes of the institutional choice process. It seems that below $12,000 per year of family income, students tend not to plan to

attend the major state universities in proportion to their occurence in the population.

Expected family contribution. Like family income, the amount parents expect to contribute to the support of the PSB seniors is related to the type of institution in which the students expect to enroll. Table 16 shows that only about 18% of the students reported that their parents expected to make no contribution at all during the ensuing academic year. About 50% of the students reported that their parents expected to contribute between $1 and $1,001. This means about one-third of the parents were reported to have expected to contribute more than $1,000.

The largest proportion of those expecting to contribute more than $1,000 were parents of prospective major state university students. And, the distributions of expected family contributions by type of institution as reported by the surveyed students were different but there is a greater difference between the prospective major state university students and the prospective regional university students than between the latter and prospective community college students.

The precise meaning of the figures is difficult to judge. It appears as though the regional and community college aspirants had parents of lower income than the parents of major state university aspirants and their parents were less willing to contribute than the parents of the prospective major university parents. However, it is plausible to anticipate that expected contribution is a partial function of the perceived cost of the expected institution of enrollment. Thus, what the parents expected to contribute

Table 16

Family Contribution and Type of Institution of Expected Enrollment

Expectancy Table

| | In State | | | | | Out of State | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Public | | | Private | | | | | | |
| Contribution | Maj. Univ. | Reg. Univ. | Comm. Coll. | 4 yr. | 2 yr. | 4 yr. | 2 yr. | Other | N | |
| None | 13.7 | 15.7 | 22.2 | 20.2 | 26.3 | 18.8 | 26.9 | 32.5 | 241 | 18.2 |
| $1-250 | 7.1 | 15.9 | 15.1 | 13.8 | 31.6 | 7.0 | 11.5 | 17.5 | 182 | 13.7 |
| 251-500 | 8.0 | 16.6 | 23.0 | 14.9 | 18.4 | 7.0 | 11.5 | 7.5 | 199 | 15.0 |
| 501-750 | 8.5 | 11.9 | 12.6 | 6.4 | 10.5 | 9.4 | 3.8 | 10.0 | 140 | 10.6 |
| 751-1,000 | 10.8 | 11.0 | 14.2 | 9.6 | 5.3 | 6.3 | 15.4 | 10.0 | 144 | 10.9 |
| 1,001-1,250 | 11.3 | 6.4 | 6.3 | 6.4 | 5.3 | 4.7 | 11.5 | | 91 | 6.9 |
| 1,251-1,500 | 9.9 | 8.4 | 2.5 | 3.2 | | 7.8 | 3.8 | 7.5 | 90 | 6.8 |
| 1,501-1,750 | 6.1 | 2.9 | .4 | 3.2 | | 3.9 | | | 38 | 2.9 |
| 1,751-2,000 | 7.1 | 2.6 | .8 | 3.2 | 2.6 | 6.3 | 3.8 | 2.5 | 45 | 3.4 |
| 2,001-2,250 | 4.2 | 2.4 | 1.7 | 3.2 | | 2.3 | 3.8 | | 33 | 2.5 |
| 2,251-2,500 | 4.2 | 1.1 | | 2.1 | | 5.5 | 3.8 | 2.5 | 26 | 2.0 |
| 2,501 or more | 8.5 | 4.9 | .8 | 13.8 | | 21.1 | 3.8 | 10.0 | 92 | 6.9 |
| N. R. | .5 | .2 | .4 | | | | | | 2 | .2 |
| | | | | | | | | | 1,324 | |

is probably quite different than what they might be willing to contribute. Nevertheless, the average prospective major university student reported a substantially higher expected family contribution than the prospective community college and regional university students. The relationship between family income, type of institution of expected enrollment and expected contribution, and actual cost is discussed in a later section of this report.

Knowledge of sources of financial assistance. Do Kentucky seniors who plan to attend different types of institutions have different levels of knowledge about financial aid? The answer to the question comes from Table 17.

The results suggest that between one-fifth and one-third of the PSB students are relatively uninformed about financial aid. The largest proportion of those who reported that they had not received information from any source were prospective major university students. Because of the greater family incomes of these students, the result was expected. What was unexpected was the similarity of the distributions of the number of sources contacted by the students.

Nevertheless, the prospective regional university students were aware of more sources than any of the other students planning on staying in Kentucky for their postsecondary education. Otherwise, the distributions look very similar. Thus, it can be concluded that if knowledge of financial assistance is related to the outcomes of the institutional choice process, it is not clearly evident in the results of the survey.

Table 17

Knowledge of Sources of Financial Assistance and Type of Institution of Expected Enrollment

| Knowledge of Sources of Financial Aid | In State | | | | | Out of State | | |
|---|---|---|---|---|---|---|---|---|
| | Public | | | Private | | | | |
| | Maj. Univ. | Reg. Univ. | Comm. Coll. | 4 yr. | 2 yr. | 4 yr. | 2 yr. | Other |
| 0 | 30.1 | 23.4 | 22.3 | 23.2 | 10.5 | 29.0 | 19.2 | 19.5 |
| 1 | 20.4 | 13.8 | 21.5 | 8.4 | 5.3 | 19.1 | 11.5 | 19.5 |
| 2 | 13.4 | 12.9 | 17.4 | 10.5 | 10.5 | 13.7 | 26.9 | 12.2 |
| 3 | 11.6 | 11.1 | 6.6 | 15.8 | 23.7 | 13.7 | 15.4 | 12.2 |
| 4 | 7.9 | 12.0 | 9.9 | 13.7 | 5.3 | 7.6 | 15.4 | 19.5 |
| 5 | 6.0 | 9.2 | 8.3 | 8.4 | 13.2 | 4.6 | | |
| 6 | 4.2 | 4.7 | 5.8 | 7.4 | 13.2 | 3.1 | | 2.4 |
| 7 | 2.8 | 4.5 | 3.3 | 4.2 | 15.8 | 5.3 | 3.8 | 2.4 |
| 8 | 1.4 | 4.3 | .4 | 2.1 | | 1.5 | | 4.9 |
| 9 | 1.4 | 1.3 | 1.2 | 1.1 | 2.6 | .8 | 3.8 | 4.9 |
| 10 | | 1.1 | 2.1 | 1.1 | | 1.5 | | 2.4 |
| 11 | .9 | 1.8 | 1.2 | 4.2 | | | 3.8 | |
| N | 216 | 552 | 242 | 95 | 38 | 131 | 26 | 41 |

Role of cost in the institutional choice decision. The role of the cost of different types of institutions in the institutional choice decision is difficult to ascertain. However, it was hypothesized that if the cost of a particular type of institution was acting as a barrier to it, students would report that the institutions they expected to enter were not their preferred institutions and the latter would be more costly than the former.

To investigate the existence of this phenomenon, the surveyed students were asked to report their preferred institution as well as the institution they were most likely to attend. A comparison was made of the responses to identify students in the following situations:

1. Preferred a private 4-year college, expected to attend a state university.

2. Preferred a state public university, expected to attend a public community college.

Other combinations were possible but it was believed these two would occur most frequently if cost were a barrier to a type of institution. In fact, what was observed was that not one students was found in either of the two situations.[1] The suggestion here is that preferred institutions tend to be institutions in which the students expect to enroll or at least, there may be a difference but the student who prefers a university expects to attend a university. Cost may play a role in this situation but the implication is clear -- students entering community colleges do so because that is what they prefer and the same is true for the students planning to

[1] This is in contrast to a study being conducted by the senior author at ACT which has found about one-fifth of his survey sample to differentiate between expected and preferred institutions.

enter public universities. When this observation is combined with the finding that 10.1% of the surveyed students cited cost as the most important factor in the selection of an institution, it could be concluded that cost does not appear to be a major determinant in this process.

Summary. In the preceding paragraphs several topics were presented which were related to the type of institution Kentucky seniors were most likely to attend. It is fairly certain that no single factor is a determinant of the type of institution students expect to attend. The major public universities, regional universities and community colleges attract students from all ranges of high school curriculum, high school averages, family income, expected family contribution to financial support, and knowledge of sources of financial assistance. Perhaps the most striking observation was the differences in the family incomes among the prospective major university, regional university and community college students. It is clear that there is a greater difference in the family incomes of the prospective major university students and the prospective regional university students than between the latter group and prospective community college students. This does not mean that cost is a barrier to the major public universities in Kentucky. In fact, students reported that they expected to attend the type of institution they prefer. Thus the data does not support the thesis that the cost of postsecondary education is an effective barrier to keeping preferences from becoming realities for Kentucky seniors. This conclusion suggests that preferences may be a function of socipeconomic status and formed earlier in the educational years. The implication is that if the goal is

established to see to it that students from families with different levels of annual income are equally represented in the major public universities, simply providing more financial assistance will not lead to the achievement of the goal.

Expected Costs and Actual Costs

Even though the cost of postsecondary education does not seem to be a barrier to senior students, it is of some importance to investigate several relationships between expected costs and other student reported information. The differences between expected and actual cost and the relationship between per capita income and expected family contribution by type of institution students expect to attend are discussed in this section.

One of the concerns of this report was the relationship between expected and actual costs of postsecondary education and the relationships between actual cost, family contribution and family income. Two analyses which revealed these relationships were conducted. The data which was necessary for the analyses included the total cost of the institution as reported by the institution, the expected parental financial contribution to the support of the PSB student, and the family income. The Kentucky Higher Education Assistance Authority provided ACT with the institutional costs for all Kentucky institutions except community colleges which was not available.

The data about the expected family contribution, and family income was collected from the students in the survey. Prior to the administration of the survey, the parents of the sample were asked to discuss both topics with the subjects. Consequently, there is a considerable amount of confidence

in the estimates of family income and family contribution as reported by the students.

Difference between expected and actual cost. The degree of difference between expected and actual cost was determined in a straight forward manner. The midpoints of the intervals of the expected cost response categories were used as estimates of the expected cost for each of the following items: (a) tuition and fees, (b) books and supplies, (c) food and housing, (d) medical expenses, (e) travel, (f) clothing, and (g) other personal expenses. These midpoints were then summed to form a total expected cost. The actual cost figure of the institution in which the student expected to enroll was subtracted from expected cost so if the student over-estimated cost the difference would have a positive sign. This procedure was done for each student for which data was available and the results are presented in Table 18.

It can be seen that about 19% of all students' expected total cost was within $250 of the actual cost of their institution. However, more students underestimated the actual cost than overestimated it. In fact, the analysis revealed that 47.3% of the PSB seniors underestimated the actual cost by more than $250. This means that 33.3% overestimated the cost by more than $250. Consequently, about one-half of the PSB seniors in Kentucky are likely to encounter a shock if they maintain their expectations upon entry to college.

The greatest shock is in store for those students planning on attending one of the private 2-year colleges in the state. In this case 82.8% of the

Table 18

Type of Institution

| Difference Expected-Actual Cost | Public Major Univ. | Public Regional Univ. | Private 4 yr. Coll. | Private 2 yr. Coll. | N | % |
|---|---|---|---|---|---|---|
| Underestimate | | | | | | |
| $-2,000 or less | .5 | | 5.4 | 31.4 | 17 | 2.0 |
| -1,999 to -1,000 | 16.8 | 9.6 | 19.4 | 25.7 | 113 | 13.0 |
| -999 to -500 | 11.0 | 25.9 | 17.2 | 25.7 | 186 | 21.4 |
| -499 to -250 | 11.5 | 12.2 | 5.4 | 2.9 | 95 | 10.9 |
| -249 to 249 | 23.4 | 20.2 | 11.8 | 5.7 | 170 | 19.5 |
| Overestimate | | | | | | |
| 250 to 499 | 6.7 | 6.9 | 12.9 | | 63 | 7.2 |
| 500 to 999 | 14.4 | 11.2 | 8.6 | 2.9 | 99 | 11.4 |
| 1,000 to 1,999 | 8.1 | 8.6 | 14.0 | 5.7 | 78 | 9.0 |
| 2,000 or more | 7.7 | 5.4 | 5.4 | | 50 | 5.7 |
| Total | 100.1 | 100.0 | 100.1 | 100.0 | 871 | 100.1 |

students underestimated the total cost by more than $500. Perhaps it should be noted that if there were an over or underestimation, it tended to be by a considerable amount. Thus, the data leads to the conclusion that the actual costs of postsecondary education tend to be underestimated by the majority of Kentucky PSB seniors regardless of the type of institution they expect to attend.

Actual cost, expected contribution and family income. Another concern in the preparation of this report was to prepare some indices of the relationship between the cost of postsecondary education and expected parental contribution and the relationship between parental contribution and family income. Because cost and parental contributions vary according to the type of institution in which students expect to enroll, these relationships were expected to vary by type of institution.

Table 19 contains the data reflecting these relationships. It can be seen that for in-state institutions the average total cost for attendance is highest for the private 4-year college followed by other types of colleges in this order: Private 2-year colleges, major universities, and regional universities. It is reasonable to assume that the public community colleges have the lowest cost although the actual cost figures were not available.

Following earlier discussion of the differences between the annual incomes of parents of prospective college students, it can be observed that there is a wide variation in family income by type of institution. This variation is more significant when the ratio of expected parental contribution to the actual cost and to the income is determined.

Table 19

Medians and Ratios of Average Cost, Expected Family Contributions and Family Income by the Type of Institution In Which the Students Expect to Enroll

| | Ave. Cost | Median Parental Contribution | Median Family Income | Median Parental Contribution/ Ave. Cost | Median Contribution Median Income |
|---|---|---|---|---|---|
| In State | | | | | |
| Major University | $2,320 | $1,038.0 | $14,248.5 | .447 | .073 |
| Regional Univer. | 1,802 | 535.5 | 10,830.5 | .297 | .049 |
| Comm. Coll. | * | 388.0 | 9,720.5 | | .040 |
| Private 4 yr. | 2,850 | 542.5 | 11,460.5 | .190 | .047 |
| Private 2 yr. | 2,406 | 188.0 | 6,900.5 | .078 | .027 |
| Out of State | | | | | |
| 4 yr. College | * | 1,083.0 | 15,450.5 | | .070 |
| 2 yr. College | * | 500.5 | 10,500.5 | | .048 |
| Other | * | 250.5 | 10,710.5 | | .023 |

* Not Available

These ratios suggest that parents of prospective major university students expect to provide the largest proportion of the actual cost of postsecondary education (44.7%). Moreover, the expected contribution of major university students is a substantially greater proportion of family income than any other similar ratio except for those students planning to enter 4-year institutions out of state. This data suggests that the parents of prospective major university students have the highest income, expect to make the highest contribution to the support of their offspring and expect to sacrifice a greater percentage of income to cover more of the expected cost than the parents of students planning to attend any other type of institution.

The greatest discrepancy between actual cost and expected parental contribution is associated with those students who indicated they would enter a private 2-year college. For these students the ratio between the median expected contribution and average actual cost was .078 and the ratio between the median family contribution and median family income was .027. Thus, while the parents of these students expected to contribute the least amount to the support of the student, their contribution would be the smallest proportion of income if income were the sole source of financial support.

The students planning to enter the regional universities, community colleges and private 4-year colleges reported similar incomes and expected contributions. Somewhere around 5% of the family income would be the expected proportion of family income devoted to the support of the student.

The use of medians and averages in the analysis just described results in fairly crude estimates which should be generalized with caution. Nevertheless, the analysis suggests that (a) parents of the major university students make greater sacrifices relative to income than do other parents, (b) parents of major university students expected contributions will pay for a greater proportion of the cost of postsecondary education than the contributions of other parents, and (c) the expected contributions of parents of prospective private college students do not cover 20% of the actual cost of postsecondary education, (d) and the expected contributions of parents of prospective regional university students will not pay for about one-third of the actual cost of postsecondary education.

Regardless of the type of institution in which students expect to enroll, the expected contribution data strongly suggest that parents are relying heavily upon public or private sources of support for the education of their children if their expected contribution is a fixed sum of money. Otherwise, they will experience increasing demands on their own resources when there are insufficient amounts of nonfamily resources available.

Expected Parental Contribution Compared to ACT's Financial Aid Program

What is the degree of congruence between the expected contribution of Kentucky parents as reported in the survey and their expected contribution as computed by ACT's (in press) need analysis system? Table 20 was prepared to answer this question.

Before the data in the table are discussed a cautionary note should be raised. That is, in national need analysis systems, expected parental contribution is determined independently of the type or cost of the institution in which students expect to enroll. This obviously may not be true for the

Table 20

Expected Parental Contribution by Income for Kentucky Parents and 1973-74 ACT National Financial Aid Program Norms

| Kentucky | | ACT | |
|---|---|---|---|
| Income | Median Expected Parental Contribution | Income | Average Parental Contribution |
| $0-3,000 | $ 88.0 | 0-2,999 | 126 |
| 3,001-6,000 | 200.5 | 3,000-5,999 | 130 |
| 6,001-7,500 | 228.0 | 6,000-7,499 | 289 |
| 7,501-9,000 | 443.0 | 7,500-8,999 | 437 |
| 9,001-12,000 | 430.5 | 9,000-11,999 | 750 |
| 12,001-15,000 | 565.5 | 12,000-14,999 | 1,275 |
| 15,001-20,000 | 873.0 | 15,000-19,999 | 2,122 |
| 20,001 or more | 1,510.5 | 20,000 or more | 4,199 |

surveyed students and their parents. Thus, while the data in Table 20 are informative their foundations differ.

Nevertheless, there are major differences that can be observed. They are (a) Kentucky parents with yearly incomes of less than $7,500 were reported to have expectations of greater support than ACT's need analysis national norms for 1973-74, (b) in the income range of $7,501-9,000 the parental contribution figures are very similar, and (c) when parental income is greater than $9,000 there is an increasing difference between expected contribution and ACT computed contribution as income increases. Thus, if these parents were to use a national need analysis system to apply for financial assistance, it seems likely they would be surprised to learn of the discrepancy between what they expect to contribute and what the need analysis system indicates what they should be able to contribute. So, the higher the income the greater the difference between the reported expected parental contribution and the average parental contribution based on ACT 1973-74 Financial Aid Program norms.

Summary. The analysis of data related to expected costs, actual costs, expected parental contributions and family income has been discussed in the three preceding sections. The results of the analyses suggest that there are wide differences among these variables according to the type of institution PSB seniors stated as the type they were most likely to attend.

Regardless of the type of institution, however, the survey results suggest that about one-half of the PSB seniors underestimated the actual

cost of postsecondary education by more than $250 per year. The group of students with the greatest discrepancy between expected cost and actual cost were those planning to attend private 2-year colleges within Kentucky. Those PSB seniors planning to attend Kentucky major public universities were more accurate in their statements of expected cost, yet over one-third of these students underestimated the actual cost by more than $250. All in all it could be said that expected costs varied quite widely from actual cost, and a considerable underestimation was typical.

Parents and KHEAA provided data used in determining relationships between average actual cost, median parental contribution, and median family income by type of institution. It was found that the ratio of median expected parental contribution to average actual cost varied according to type of institution. This ratio was .447 for Kentucky major public university prospective students, .297 for Kentucky regional public university prospective students, .190 for in-state private 4-year college prospective students and .078 for in-state private 2-year college prospective students. Thus, the expected parental contributions would meet different proportions of the actual cost of postsecondary education depending upon the type of institution their offspring was most likely to attend.

Moreover, the proportion of income of parents of Kentucky major public university students that would be contributed was .073. Five percent of the income of parents of prospective regional university, community college and private 4-year college prospective students would be contributed. Accordingly, the proportion of income parents expected to contribute varied

by the type of institution their offspring planned to attend.

One final topic was discussed in this chapter. It was the relationship between expected parental contribution as determined by the survey and parental contribution as it might be determined by ACT's need analysis system. The differences between the expected contribution figures by family income were quite large particularly in the middle and upper income ranges where the need analysis system's contribution figures are considerably higher. The contribution figures at the lower ends of the income distributions also are different but the need analysis systems figures are lower.

In conclusion it could be said that PSB seniors underestimate the cost of postsecondary education, the expected contribution of the parents will not cover more than 25% of the actual cost of postsecondary education on the average and there are wide differences in what parents expect to contribute and what a national need analysis system would indicate they should be able to contribute.

# CHAPTER IV

## SUMMARY AND CONCLUSIONS

This is a report which focused on the limiting factors which were hypothesized to be related to the outcomes of two important decisions faced by Kentucky high school seniors. The decisions were (a) to enter an occupation or to enter postsecondary education, and (b) the selection of a postsecondary institution to attend.

There are always limits within which students make these two decisions. Those limits which were the topics of this report included (a) high school curriculum, (b) high school average, (c) parental income, (d) number of children in the family and the number of dependent children in postsecondary education at the same time, (e) knowledge of financial assistance programs, and (f) the expected costs of postsecondary education. To determine the relationship between these factors and the outcomes of the two decisions, KHEAA in cooperation with ACT surveyed a 10% random sample of high school seniors in the Spring of 1973. The data collected in the survey were analyzed by ACT and the results were divided and reported in two chapters.

The relationship between the outcomes of the transition decision and the limiting factors was discussed in one chapter. The other major chapter was a discussion of the relationships between the outcomes of institutional choice decision and the limiting variables.

The Transition Decision

Whether or not seniors plan to enter postsecondary education after high school was found to be related to (a) their high school curriculum program, (b) their high school average, (c) their family's annual income, and (d) their expected cost of postsecondary education. Moreover, the relationship between per capita income and high school average and the outcomes of the transition decision varied within particular high school curriculum programs. Based on the data presented in the second chapter it can be stated that students with the following characteristics are underrepresented among PSB seniors in Kentucky as compared to the proportion of PSB seniors in the population:

1. Students in all curriculum programs except college preparatory.
2. Students with "C" or lower high school averages.
3. Students whose family income is less than $9,000 per year.
4. Students from families with 6 or more children.

There were two factors which the data suggested were not strongly related to the outcomes of the transition decision. One was the number of children in the family and the other was knowledge of financial assistance programs. With respect to the latter factor it was observed that fewer than 50% of the seniors were aware of any one program.

There were marked differences between the expected costs of postsecondary education both among and within the types of institutions students indicated they would attend. OB students who indicated they would attend a public in-state community college if they were to enter postsecondary

education, expected a higher cost than did the PSB students planning to attend the same institution. The difference between the total expected cost of regional universities as stated by OB and PSB students was also quite different. Here OB students expected higher cost again.

These higher expected costs by OB students were not attributed to tuition, books and supplies, and living expenses. Rather they were related to clothing and travel.

All in all it could be said that PSB students were from families with higher incomes, experienced greater academic success in high school, were more likely to have been in college preparatory high school programs, and expected lower cost of postsecondary education than OB students.

The Institutional Choice Decision

Most of what was found in the investigation of the transition decision could have been accurately predicted. The same is true for the results of the study of the transition decision and the relationships between family income, expected parental contribution, actual cost, and expected parental contribution by ACT's need analysis system.

In the first of the three sections of the third chapter it was found that:

1. Students in college preparatory programs in high school were overrepresented in the groups of students planning to enter Kentucky major public universities, private 4-year universities, and out-of-state 4-year colleges. They were underrepresented in the PSB seniors planning to attend all other types of institutions.

2. Seniors in vocational-technical high school programs are overrepresented in the group of PSB seniors planning to attend community colleges.

3. Seniors in general and combined and business and commercial high school programs are overrepresented among PSB students planning to attend regional universities and community colleges.

4. PSB seniors with "A" and "B" averages are overrepresented among students planning to attend the major public universities in Kentucky and underrepresented among those planning to attend regional universities and community colleges.

5. Students with "C" averages are overrepresented in regional universities and community colleges in Kentucky.

6. PSB seniors from families with less than $12,000 annual income are underrepresented among those PSB students planning to attend the major public universities in Kentucky.

7. PSB seniors from families with less than $6,000 annual income are underrepresented among those PSB students planning to attend regional universities in Kentucky.

8. PSB seniors from families with less than $3,000 are underrepresented among the PSB students planning to attend public community colleges in Kentucky.

In addition it was found that students expected to attend the type of institution they preferred to attend. That is, no students reported that they preferred to attend a private in-state university but expected to attend a public university. Similarly, no students reported that they would prefer to attend a university but expect to attend a public community college. Thus, the results of the survey suggested that there is some congruence between preferences and expectations in the choice of a college.

This congruence was not evident in the relationship between expected costs and actual costs of postsecondary education. In fact, about half of all PSB seniors expected the yearly cost to be lower than the actual by

$250 or more. And in general, the results imply that the respondents were not very accurate in their estimates of the cost of postsecondary education. It was found in the second chapter that OB students expected higher total costs than the PSB students. Thus, it appears as though the OB students made more accurate estimates than PSB seniors.

And finally it was found that on the average parents apparently do not expect to contribute more than 7% of their income to the support of their PSB offspring during his first year out of high school. Even this percentage drops to 5% for parents of prospective regional university, public community college and private, in-state 4-year college students. Moreover, low income parents expected to contribute greater resources to the students support than ACT's need analysis system would indicate they should be able to contribute. Conversely, middle and upper income families were reported to have expected to contribute substantially less than ACT's need analysis system would indicate they should be able to contribute.

In summary, it can be said that the survey has identified some major and important differences among students planning to attend different types of postsecondary institutions. In fact, students with certain characteristics and experiences were found to be underrepresented among students planning to attend different types of institutions. Moreover, the wide disparities between expected costs and actual costs of postsecondary education and expected parental contribution and computed parental contribution suggest that specific actions be taken to balance these factors.

What actions will result in correcting all of these imbalances is beyond the data collected in the survey. Thus, this report cannot address this issue. Nevertheless, it has provided basic information relevant to the current relationship between various "limiting" factors and the transition decisions and the institutional choice decisions of Kentucky high school seniors.

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## Expected Tuition and Fees

| | Major Univ. | | Regional Univ. | | Comm. Coll. | |
|---|---|---|---|---|---|---|
| | OB | PSB | OB | PSB | OB | PSB |
| No Cost | 1.2 | 1.4 | 2.5 | 1.8 | 1.7 | 1.7 |
| $1-49 | 4.8 | .9 | 3.0 | 1.5 | 7.8 | .8 |
| 50-99 | 8.4 | .5 | 5.5 | 2.0 | 6.1 | 2.1 |
| 100-199 | 8.4 | 3.3 | 9.0 | 7.2 | 12.2 | 10.1 |
| 200-299 | 8.4 | 5.2 | 11.6 | 9.2 | 13.9 | 16.0 |
| 300-399 | 7.2 | 3.3 | 8.5 | 11.6 | 12.2 | 13.5 |
| 400-499 | 2.4 | 12.3 | 13.1 | 16.0 | 7.8 | 18.1 |
| 500-749 | 16.9 | 23.1 | 13.6 | 22.4 | 20.0 | 19.4 |
| 750-999 | 2.4 | 9.0 | 12.6 | 7.4 | 4.3 | 5.5 |
| 1000-1249 | 20.5 | 17.5 | 8.0 | 10.8 | 8.7 | 7.2 |
| 1250-1499 | 6.0 | 9.4 | 3.5 | 2.6 | .9 | .8 |
| 1500-1999 | 3.6 | 7.5 | 3.5 | 4.2 | .9 | 2.1 |
| 2000-2499 | 4.8 | 2.4 | 1.5 | 1.3 | | .8 |
| 2500-2999 | 1.2 | .9 | 2.0 | 1.3 | | .8 |
| 3000-3499 | 1.2 | .9 | .5 | .6 | 3.5 | .8 |
| 3500 or more | 2.4 | 2.4 | 1.5 | .2 | | |
| Median | 634.5 | 749.5 | 474.5 | 507.0 | 367.5 | 431.5 |
| N | | | | | | |

## Expected Books and Supplies Expenses

| | Major Univ. | | Regional Univ. | | Comm. Coll. | |
|---|---|---|---|---|---|---|
| | OB | PSB | OB | PSB | OB | PSB |
| No Cost | 1.2 | 2.3 | 2.0 | .7 | | .8 |
| $1-49 | 8.4 | 3.8 | 8.5 | 5.3 | 21.7 | 10.9 |
| 50-99 | 37.3 | 37.6 | 40.5 | 40.5 | 32.2 | 48.7 |
| 100-199 | 24.1 | 43.2 | 32.0 | 35.9 | 27.0 | 26.5 |
| 200-299 | 8.4 | 6.1 | 10.5 | 10.5 | 8.7 | 8.0 |
| 300-399 | 8.4 | 2.3 | 4.5 | 3.3 | 4.3 | 2.1 |
| 400-499 | 3.6 | 1.4 | 3.0 | 1.1 | 1.7 | 2.1 |
| 500-749 | 3.6 | 1.9 | 1.5 | 1.5 | 2.6 | .4 |
| 750-999 | 2.4 | | 2.0 | .7 | .9 | .4 |
| 1000-1249 | 1.2 | .5 | | | | |
| 1250-1499 | | .5 | | | .9 | |
| 1500-1999 | | | .5 | .2 | | |
| 2000-2499 | | .5 | | .2 | | |
| 2500-2999 | | | | | | |
| 3000-3499 | | | | | | |
| 3500 or more | 1.2 | .5 | | | | |
| Median | 112.5 | 114.5 | 112.5 | 108.5 | 93.5 | 88.5 |
| N | 83 | 213 | 200 | 543 | 115 | 238 |

## Expected Food and Housing Expenses

| | Major Univ. | | Regional Univ. | | Comm. Coll. | |
|---|---|---|---|---|---|---|
| | OB | PSB | OB | PSB | OB | PSB |
| No Cost | 16.9 | 23.2 | 11.5 | 13.1 | 30.4 | 51.9 |
| $1-49 | 3.6 | | 1.0 | 2.8 | 4.3 | 5.5 |
| 50-99 | 6.0 | 4.3 | 5.0 | 3.9 | 6.1 | 8.0 |
| 100-199 | 7.2 | 4.3 | 18.5 | 9.0 | 10.4 | 8.0 |
| 200-299 | 10.8 | 4.7 | 12.0 | 11.0 | 14.8 | 7.6 |
| 300-399 | 4.8 | 5.2 | 12.5 | 13.6 | 6.1 | 5.9 |
| 400-499 | 8.4 | 3.3 | 5.5 | 10.1 | 1.7 | 2.5 |
| 500-749 | 13.3 | 10.0 | 14.5 | 17.3 | 13.0 | 5.1 |
| 750-999 | 10.8 | 9.5 | 9.0 | 9.9 | 4.3 | 3.0 |
| 1000-1249 | 9.6 | 22.3 | 6.5 | 5.9 | 6.1 | 1.3 |
| 1250-1499 | 2.4 | 4.7 | 1.5 | 1.5 | | .4 |
| 1500-1999 | 2.4 | 5.2 | .5 | .7 | .9 | |
| 2000-2499 | 1.2 | 1.9 | .5 | .7 | | .8 |
| 2500-2999 | 1.2 | | 1.0 | | .9 | |
| 3000-3499 | | .5 | | | | |
| 3500 or more | 1.2 | .9 | .5 | .4 | .9 | |
| Median | 406.5 | 624.5 | 315.5 | 374.5 | 187.5 | 0.18 |
| N | 83 | 211 | 200 | 543 | 115 | 237 |

## Expected Medical Expenses

| | Major Univ. | | Regional Univ. | | Comm. Coll. | |
|---|---|---|---|---|---|---|
| | OB | PSB | OB | PSB | OB | PSB |
| No Cost | 15.7 | 24.8 | 10.1 | 21.4 | 20.9 | 40.3 |
| $1-49 | 10.8 | 33.2 | 27.1 | 38.7 | 26.1 | 27.7 |
| 50-99 | 28.9 | 22.0 | 30.7 | 23.2 | 22.6 | 16.8 |
| 100-199 | 20.5 | 11.7 | 17.6 | 9.6 | 20.0 | 8.4 |
| 200-299 | 8.4 | 2.8 | 4.5 | 2.8 | 3.5 | 2.1 |
| 300-399 | 3.6 | .9 | 3.5 | 1.3 | 3.5 | 1.7 |
| 400-499 | 3.6 | .9 | 1.5 | 1.1 | | .4 |
| 500-749 | 4.8 | .5 | 2.5 | .6 | .9 | 1.7 |
| 750-999 | | .5 | 1.0 | .9 | 1.7 | .4 |
| 1000-1249 | 1.2 | .5 | 1.5 | .4 | .9 | |
| 1250-1499 | | | | | | .4 |
| 1500-1999 | | | | | | |
| 2000-2499 | | .5 | | | | |
| 2500-2999 | | .5 | | | | |
| 3000-3499 | | .5 | | | | |
| 3500 or more | 2.4 | .9 | | | | |
| Median | 90.0 | 38.5 | 70.5 | 37.5 | 56.0 | 18.0 |
| N | 83 | 214 | 199 | 542 | 115 | 238 |

## Expected Travel Expenses

| | Major Univ. | | Regional Univ. | | Comm. Coll. | |
|---|---|---|---|---|---|---|
| | OB | PSB | OB | PSB | OB | PSB |
| No Cost | 8.4 | 16.0 | 3.0 | 12.5 | 6.1 | 28.0 |
| $1-49 | 10.8 | 19.2 | 8.6 | 18.8 | 21.1 | 12.6 |
| 50-99 | 14.5 | 21.6 | 22.2 | 24.5 | 16.7 | 17.2 |
| 100-199 | 18.1 | 18.8 | 28.8 | 22.5 | 20.2 | 19.2 |
| 200-299 | 16.9 | 12.2 | 10.6 | 9.8 | 9.6 | 10.9 |
| 300-399 | 13.3 | 2.8 | 8.6 | 4.2 | 8.8 | 4.2 |
| 400-499 | 7.2 | 1.9 | 4.0 | 2.0 | 7.0 | 5.0 |
| 500-749 | 2.4 | 4.2 | 6.6 | 3.1 | 4.4 | 1.7 |
| 750-999 | 3.6 | 1.4 | 4.0 | 1.5 | 2.6 | .4 |
| 1000-1249 | 1.2 | | 1.0 | .6 | | .4 |
| 1250-1499 | | .5 | | .2 | | |
| 1500-1999 | 1.2 | | 1.0 | | .9 | .4 |
| 2000-2499 | | | .5 | | .9 | |
| 2500-2999 | | | .5 | | | |
| 3000-3499 | | .5 | | | | |
| 3500 or more | 2.4 | .9 | .5 | .4 | 1.8 | |
| Median | 186.5 | 83.5 | 155.5 | 87.5 | 122.5 | 77.0 |
| N | 83 | 213 | 198 | 543 | 114 | 239 |

## Expected Clothing Expenses

| | Major Univ. | | Regional Univ. | | Comm. Coll. | |
|---|---|---|---|---|---|---|
| | OB | PSB | OB | PSB | OB | PSB |
| No Cost | 1.2 | 4.7 | 2.5 | 3.7 | 30.4 | 69.6 |
| $1-49 | 6.0 | 8.9 | 4.5 | 6.8 | 5.3 | 7.1 |
| 50-99 | 12.0 | 19.2 | 16.2 | 23.7 | 20.2 | 25.9 |
| 100-199 | 22.9 | 30.0 | 28.8 | 31.6 | 25.4 | 28.9 |
| 200-299 | 25.3 | 15.0 | 24.7 | 17.8 | 21.1 | 14.6 |
| 300-399 | 10.8 | 12.7 | 11.1 | 6.3 | 11.4 | 7.9 |
| 400-499 | 9.6 | 5.6 | 5.1 | 4.6 | 7.9 | 3.3 |
| 500-749 | 4.8 | 1.9 | 3.0 | 2.9 | 1.8 | 3.3 |
| 750-999 | 1.2 | | 2.5 | 1.1 | | 1.3 |
| 1000-1249 | 1.2 | | .5 | .9 | .9 | .8 |
| 1250-1499 | | .5 | 1.0 | | | |
| 1500-1999 | 1.2 | | | .2 | | |
| 2000-2499 | | | | | | |
| 2500-2999 | 2.4 | .5 | | | | |
| 3000-3499 | | .5 | | .2 | | |
| 3500 or more | 1.2 | .5 | | .2 | | |
| Median | 230.5 | 156.5 | 192.5 | 149.5 | 171.5 | 135.5 |
| N | 83 | 213 | 198 | 544 | 114 | 239 |

## Other Personal Expenses

| | Major Univ. | | Regional Univ. | | Comm. Coll. | |
|---|---|---|---|---|---|---|
| | OB | PSB | OB | PSB | OB | PSB |
| No Cost | 1.2 | 3.3 | 5.0 | 4.4 | 2.7 | 7.5 |
| $1-49 | 12.0 | 15.0 | 9.0 | 18.4 | 16.8 | 22.2 |
| 50-99 | 10.8 | 20.2 | 18.1 | 24.3 | 18.6 | 24.3 |
| 100-199 | 27.7 | 29.1 | 25.6 | 25.4 | 26.5 | 24.7 |
| 200-299 | 14.5 | 14.6 | 11.1 | 12.3 | 19.5 | 9.2 |
| 300-399 | 6.0 | 7.5 | 8.5 | 4.8 | 2.7 | 4.2 |
| 400-499 | 3.6 | 3.8 | 5.0 | 4.1 | 2.7 | 3.8 |
| 500-749 | 12.0 | 4.7 | 7.0 | 3.7 | 5.3 | 2.5 |
| 750-999 | 7.2 | | 4.5 | 1.3 | | .8 |
| 1000-1249 | | | 1.5 | .6 | 1.8 | |
| 1250-1499 | | .5 | .5 | | .9 | |
| 1500-1999 | 2.4 | | 1.0 | .2 | | |
| 2000-2499 | | | | .2 | | |
| 2500-2999 | | | | | | |
| 3000-3499 | | | 2.0 | | | .4 |
| 3500 or more | 2.4 | 1.4 | 1.0 | .4 | 2.7 | .4 |
| Median | 192.5 | 139.5 | 169.5 | 110.5 | 144.5 | 91.5 |
| N | 83 | 213 | 199 | 543 | 113 | 239 |