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SOCIAL CHARACTERISTICS OF HIGH SCHOOL STUDENTS PLANNING TO PURSUE POST HIGH SCHOOL VOCATIONAL TRAINING. FINAL REPORT NO. 17.

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THE CHARACTERISTICS OF STUDENTS PLANNING POST-HIGH SCHOOL BUSINESS EDUCATION, VOCATIONAL EDUCATION, SOME COLLEGE, AND COLLEGE GRADUATION ARE IDENTIFIED. A STRATIFIED RANDOM SAMPLE OF 3,117 JUNIOR AND SENIOR STUDENTS IN 12 HIGH SCHOOLS PROVIDED DATA FOR COMPARING SCHOOL EXPERIENCES AND ATTITUDES TOWARDS SCHOOL, FAMILY BACKGROUND, PEER GROUP RELATIONSHIPS, AND OCCUPATIONAL EXPECTATIONS. THE FINDINGS IMPLIED THAT SCHOOL EXPERIENCES TEND TO REINFORCE RATHER THAN DISPEL THE HANDICAP TO EDUCATIONAL ACHIEVEMENT AND SUBSEQUENT UPWARD OCCUPATIONAL MOBILITY OF HAVING BEEN BORN INTO A FAMILY WITH LOW SOCIOECONOMIC STATUS. STUDENTS PLANNING VOCATIONAL AND BUSINESS TRAINING HAD RELATIVELY LOW SELF-IMAGES OF THEIR OWN SCHOLASTIC AND INTELLECTUAL ABILITIES WHEN COMPARED TO COLLEGE BOUND STUDENTS. STUDENTS PLANNING VOCATIONAL OR BUSINESS TRAINING RATED BETWEEN COLLEGE BOUND STUDENTS AND THOSE PLANNING TO TERMINATE THEIR FORMAL EDUCATION IN HIGH SCHOOL ON GRADE LEVEL, INTEREST IN SCHOOL WORK AND SATISFACTION WITH SCHOOL. IN GENERAL, STUDENTS PLANNING VOCATIONAL OR BUSINESS TRAINING HAD FOUND HIGH SCHOOL A RELATIVELY UNSUCCESSFUL AND UNINTERESTING EXPERIENCE BUT PLANNED TO ENTER OCCUPATIONS FOR WHICH THEIR TRAINING WOULD PREPARE THEM. HOWEVER, A SIGNIFICANT MINORITY SHOWED AN INCONGRUITY BETWEEN EDUCATIONAL AND OCCUPATIONAL PLANS. (DM)

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TO PURSUE POST HIGH SCHOOL VOCATIONAL TRAINING

June 1968

U.S. DEPARTMENT OF  
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Roy T. Bowles  
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June 1968

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## SUMMARY

The purpose of this report is to identify the characteristics of students who plan to pursue vocational training after high school graduation. Data were collected by questionnaire from students enrolled in a sample of Washington high schools. Students planning to take business or commercial training are separated from those planning other types of vocational training. For the purposes of this report the former group is referred to as those planning "business training." The latter group is referred to as those planning "vocational training." In accord with this definition "vocational training" refers to post high school training in vocational fields other than business.

Social characteristics of students planning vocational or business training, either in junior colleges or other institutions, are compared with those of students who planned to terminate their education with high school and with those of students who planned to attend or graduate from college. Comparisons are made in terms of: school experiences and attitudes toward school, family background, peer group relationships, and occupational expectations.

In most cases characteristics of students planning business training were quite similar to those planning other types of vocational training.

Students planning to acquire additional business or other vocational training had had different high school experiences and had different attitudes toward school than students planning to attend or graduate from college. They reported lower grades than college-bound students. They also reported less interest in school work and more dissatisfaction with school. They were, however, more interested in school work and less dissatisfied with school than those who were planning to terminate their formal education with high school.

Students planning vocational and business training had relatively low self-images of their own scholastic and intellectual abilities, compared to college-bound students. Boys planning vocational training and girls planning business training have taken more vocational subjects in high school than students planning college education. Vocational and business oriented students have been less active in extracurricular activities and have held fewer leadership positions than have those planning to attend or graduate from college. On most of the variables students planning vocational or business training were similar to those who were planning no education after high school. Thus, as compared to the college-bound student, the student planning



vocational or business training has found high school a relatively unsuccessful and uninteresting experience.

The sons of blue-collar workers and farmers were found to be more likely to plan for vocational training than the sons of white-collar workers. The daughters of blue-collar and clerical workers were more likely than the daughters of men in other occupations to plan vocational or business training. Vocational and business oriented students were less likely than the college-bound to have a mother or a father who had attended college. They were less likely than those planning to attend or graduate from college to perceive their family as having an above average income. Vocational and business oriented students were less likely than those planning to go to college to think that their parents would provide financial support for college but more likely to believe that their parents would support them financially in vocational school. Vocationally oriented students have been less likely to be encouraged by their parents to get as much education as possible. Among boys there are some differences between those planning vocational training and those planning business training. In general, students planning vocational or business training are not as likely as the college bound to possess family characteristics conducive to high levels of educational expectations or achievements.

Peer group characteristics of students who were oriented toward vocational or business training differed somewhat from those of college-bound students. Students planning vocational and business training were more likely than college-bound students and less likely than students who did not plan training beyond high school to have had friends who dropped out of school. They were less likely than college-bound students and more likely than those not planning post high school training to report that most of their friends plan to go to college. They were less likely than college-bound students and more likely than "high school only" students to have friends who urged them to get as much education as possible. Students planning vocational or business training were more likely than those planning to attend college to have friends with favorable attitudes toward vocational education. Thus, it appears that students planning vocational education are less likely than those planning college attendance or graduation, and more likely than those planning "high school only" to experience peer pressures encouraging higher levels of training.

A large majority of boys and girls planning vocational or business training expected to enter occupations appropriate to the level of training they planned to receive. Vocational training was perceived by many boys as a major means of access to



skilled crafts and operative occupations. Girls appeared to see business training as a means of entry into clerical occupations. Girls seemed to perceive other types of vocational training as a route to service occupations.

For a significant minority of students there appears to be an incongruity between their educational plans and their avowed occupational expectations. Over one-fifth of the boys and over one-tenth of the girls planning vocational or business training said they expected to enter professional or technical occupations.

## INTRODUCTION

In modern society "education is placed squarely between man and his work" (3). This is especially true of the type of vocational education which has as its principal purpose the preparation of individuals for successful participation in the world of work. The individual needs specific skills to find employment, but much more than specific skills are necessary if he is to make an adequate lifetime adjustment in today's occupational world.

Swiftly changing job patterns mean that the subprofessional person must look forward to five or six occupational shifts over the next forty years, so that continuing education will increase in importance. In addition, the more cognitive work functions to be performed will demand higher levels of related knowledge and general education, and a new factor, the anticipated shorter workweek, means that more attention will need to be paid to the use of leisure time and to the potential for greater civic participation (3).

Thus, if the educational system is to meet the needs of today's world it must help produce individuals who have the specific skills required for entry into the labor market, the cognitive abilities which are necessary for effective job performance and adaptability to new situations, the social skills needed for successful interpersonal relationships, and the general background necessary for constructive leisure and civic activity.

The nature of the programs required for the achievement of these qualifications depends to a large extent on the characteristics of the students with whom the education system must work. In this report we will identify some of the characteristics of students who plan to acquire vocational and business education. We will raise questions about the implications of these characteristics for the programs of institutions offering vocational or business training and for the programs of high schools.

There have been many studies of the educational aspirations and expectations of high school students (1). Most such studies provide a limited amount of information about broad categories such as students who are planning to attend college and those who are not, but relatively little is known about the characteristics of students who have more specific educational plans. Not all students who attend college will acquire the same amount and type of education. Some students will attend and graduate from a university, and may pursue graduate or professional degrees. Other students will spend a year or two in a community college where they will take primarily vocational courses. Students who

do not plan to attend college also differ in their education goals. Some will acquire no further training after high school. Others will attend vocational or business schools where they will acquire training much like that received by many students in community colleges.

Of all students who participated in the study reported here, 17 per cent said that they expected vocational training beyond high school to be the highest level of education they would attain. Another 11 per cent listed post high school business or commercial training as their highest educational expectation (2). If over one-fourth of the high school graduates plan these types of training, society and its educational institutions should do all that is possible to maximize the value of the training they will receive.

The purpose of the Vocational-Technical Education Research and Development Project established at Washington State University is to gather information useful in the improvement of vocational and technical education in the State of Washington. The Educational and Occupational Aspirations Study was undertaken for the purpose of identifying the social characteristics, values, and attitudes, and occupational plans of high school students who do not expect to obtain a college degree. In order to help evaluate the meaning of this information, we asked identical questions of students who said they were college bound.

Information about the kinds of students who plan vocational or business education may help educators in vocational schools, business schools, and junior colleges to recognize special problems in meeting the needs of their students. It may suggest ways of solving these problems. Such information may also suggest methods by which high schools can better meet the educational and counseling needs of all students.

#### CONCEPTUAL FRAME OF REFERENCE

The conceptual frame of reference to be used in this study is sociological and social psychological. The student is viewed as a person in a decision-making situation. As a person he is a member of several concrete social systems. Within each of these systems he engages in social interaction with other group members. Each social system possesses a fairly distinct sub-culture, i.e., a set of norms and values. As the person interacts with other members of a given social system he will internalize some of these norms and values. In addition, the members of each social system hold expectations to which he must respond. The direction taken by an individual's decision will, therefore, reflect the norms and values of the groups to which he belongs.

As a result of his experiences, each person develops an image of himself. The image includes: (1) self-esteem, i.e., self-respect and ideas of personal worth; (2) an image of abilities and capacities; and (3) a set of personal goals. Each person evaluates the various possibilities open to him in terms of their anticipated effect on these aspects of his self-image. As a result, the choices he makes will be affected by his self-image.

Each person also possesses attitudes and motives. These are products of his experiences, especially his experiences in the family and other social groups. The attitudes and motives which the person acquires have an impact on his reaction to the different possibilities open to him and hence on the nature of the decision he makes.

Finally, the person exists in an objective economic situation and has objective physical and mental characteristics which place limitations on his capacity to follow some of the alternatives otherwise open to him. He will take these limitations, as he perceives them, into account in making his decision.

#### METHODS

During the 1965-66 school year all juniors and seniors in a stratified random sample of public high schools in the State of Washington were asked to complete a questionnaire. This questionnaire asked students about their educational and occupations plans, background characteristics, and attitudes. In all, 3117 students in 12 high schools returned usable questionnaires. Data from these questionnaires form the basis of the present report.

Students were classified according to their educational plans as indicated by two questions in the questionnaire. The first question was:

Mark the blanks at the left of the phrases which best describe that education you think you will actually be able to get. (Check all that apply.)

- (1) Quit high school and not go to any kind of school again
- (2) Graduate from high school
- (3) Attend a business or commercial school (not college level)
- (4) Attend a technical or vocational school (not college level)
- (5) Attend a junior college-take a business or commercial course

- \_\_\_\_\_ (6) Attend a junior college-take a vocational or technical course
- \_\_\_\_\_ (7) Attend a junior college-take a regular college course
- \_\_\_\_\_ (8) Attend a college or university
- \_\_\_\_\_ (9) Graduate from a college or university
- \_\_\_\_\_ (10) After graduating from college spend one or more years doing advanced study in a specialized field
- \_\_\_\_\_ (11) Other (what?) \_\_\_\_\_

The second question was:

How sure are you that you will actually get the highest level of education you marked in question 9?

- \_\_\_\_\_ (1) Very sure
- \_\_\_\_\_ (2) Fairly sure
- \_\_\_\_\_ (3) Not at all sure

Students were divided into five categories according to the type of education they planned and the certainty of their plans. Only the highest level of educational expectations marked was considered in this classification. The categories were as follows:

- (1) College graduate: students who marked graduate school as the highest level of education expectation, plus students who said they were very sure or fairly sure of graduating from college.
- (2) Some college\*: students who said they were not at all sure of graduating from college, those who said they were very sure or fairly sure of attending a college or university, those who said they were fairly sure or very sure of attending junior college and taking an academic (regular college) course.
- (3) Business training\*: those students who said they were very sure or fairly sure of attending a business or commercial school or that they were very or fairly sure of attending a junior college and taking a business or commercial course.

---

\*The authors recognize that these titles are not completely descriptive; for example, business training is a type of vocational training and those planning to study business or vocational subjects in a vocational school or junior college could be said to have "some college." However, we prefer to use these titles rather than more awkward substitutes.



- (4) Vocational training\*: students who said they were very sure or fairly sure of attending a vocational or technical school or that they were very sure or fairly sure of attending a junior college and taking a vocational or technical course.
- (5) High school only: those who indicated high school as their highest level of educational expectations.

Those students who indicated that they were not at all sure of attending college, not at all sure of attending a junior college, or not at all sure of attending a business school or a vocational school were excluded from the analysis. Those who indicated "other" educational plans were also excluded from the analysis.

Previous research has demonstrated that the educational and occupational experiences, aspirations, and plans of boys and girls frequently differ materially. Consequently, we have analyzed the data separately by sex. Table 1 shows the educational plans of boys and girls according to the system of classification we have devised for this report.

TABLE 1  
EDUCATIONAL PLANS BY SEX

Educational Plans	Boys		Girls	
	No.	%	No.	%
College Graduate	692	47.8	585	41.5
Some College	269	18.6	298	21.1
Business Training	73	5.1	218	15.5
Vocational Training	235	19.7	174	12.3
High School Only	127	8.8	136	9.6
Total	1446	100.0	1411	100.0

The major sex differences in educational plans were: (1) relatively more boys than girls planned to graduate from college, (2) more girls than boys planned to go to college but not gradu-

\* See footnote on previous page.



ate, (3) more girls than boys planned to take business training, and (4) more boys than girls planned to take vocational training. These differences reflect cultural differences in the occupational roles of men and women in our society.

## RESULTS

### High School Experiences and Attitudes

The experiences which students have in high school can affect their receptivity to subsequent education and their capacity to perform effectively as workers and citizens. If students who are planning vocational and business training have not had self-fulfilling experiences in high school, or if they have negative attitudes toward high school, this will complicate the task of giving them further education. It may also mean that they will be less capable of making satisfactory adjustments as workers in a rapidly changing society.

High school has been a different experience for students who plan to acquire vocational or business education than it has been for students planning other types of education. In this section we will examine some of the ways in which it has been experienced differently and draw some implications for educational policies and practices.

School Grades--Students planning to take vocational or business training were less likely to have good academic records in high school than were those planning academic education.

Each student was asked what grades he received on his last report card (Q. 17)\*. As can be seen in Table 2, (see also Table A-1)\*\* girls were more likely than boys to report good grades. Within each sex those planning vocational or business education were only a little more likely than those planning no post-high school education to report that they received mostly B's or better grades. They were less likely than those who planned to attend college, and much less likely than those who indicated plans to graduate from college, to say they had received good grades.

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\* Number preceded by "Q" in parentheses refers to question number. See Appendix B for complete wording of all questions used in this report.

\*\* More detailed statistical tables are presented in Appendix A.

TABLE 2  
PER CENT OF STUDENTS REPORTING  
"MOSTLY B'S" OR BETTER GRADES

Educational Plans	Boys	Girls
College Graduate	53	78
Some College	28	50
Business Training	10	29
Vocational Training	11	24
High School Only	6	20

It is possible that many students who do poorly in high school select vocational and business training, rather than college, because a low self-appraisal of their academic abilities. If this is the case, vocational educators are confronted with problems of dealing with students who feel they have failed once. It is also possible, of course, that some students who plan business and vocational training receive low grades simply because they are not motivated to perform well in high school. Where this is the case, better ways need to be developed to show these students that the subject matter taught in high school will be important in their lives.

Interest in School Work--Students planning vocational or business education expressed less interest in their school work than those planning an academic education, especially those planning to graduate from college. However, they expressed more interest than those planning no education after high school.

Students were asked, "How much of your school work are you interested in?" (Q. 15). About half of the boys planning vocational or business training said they were interested in all or most of their school work (See Table 3 and Table A-2). A smaller percentage of those who planned to terminate their education with high school but a larger percentage of those planning to attend or graduate from college gave this response. (See Table 3 and Table A-2.) Among girls, those planning vocational or business training also fell intermediate between the high school only group and those planning to graduate from college. There was little difference between those in the vocational and business training categories and those planning some college.

TABLE 3

PER CENT OF STUDENTS INTERESTED IN  
ALL OR MOST OF THEIR SCHOOL WORK

Educational Plans	Boys	Girls
College Graduate	80	92
Some College	65	78
Business Training	49	71
Vocational Training	50	71
High School Only	31	56

It will be noted that relatively large proportions of students in all categories expressed interest in all or most of their school work.

These findings suggest that the more interested a student is in his school work the more likely he is to continue his education. They also suggest that many of those planning vocational or business education do not have high interest in school work. This finding suggests that high school teachers may benefit from special training in techniques for maintaining the interest of the vocationally oriented student. It also suggests that teachers in vocational and business schools may be faced with special motivational problems among their students.

Dissatisfaction with School--In spite of the relatively high levels of interest in school work, many students are dissatisfied with school.\* In an attempt to gauge the amount of dissatisfaction experienced by students, an index of dissatisfaction with school was developed. (Q. 16). (See Appendix C for index construction procedures.) This index included the the following items:

I like school very much.

I often find myself watching the clock because my classes are so boring.

Lunch time is the most enjoyable time of the day.

---

\*This apparent contradiction may be accounted for in two ways. First, it is possible that some students find the school work itself interesting, but are dissatisfied by other aspects of school, such as its regimentation. It is also possible that some students gave a socially desirable response to question 15, and overstated their actual interest in school work.

In the evening I often find myself watching TV instead of doing my homework.

High school seems to be little more than "serving time" until I can get out and go to work.

A total score was computed for each student and students were classified as either high, medium, or low on this index, with a high score reflecting the most negative attitude toward school.

Results are presented in Table 4 (and Table A-3). As noted earlier for other questions, there were differences between boys and girls. But within each sex students who were planning vocational or business education were more likely to score high on

TABLE 4  
PER CENT OF STUDENTS SCORING HIGH ON  
INDEX OF DISSATISFACTION WITH SCHOOL

Educational Plans	Boys	Girls
College Graduate	32	19
Some College	47	32
Business Training	63	46
Vocational Training	59	47
High School Only	74	60

the index of dissatisfaction with school than those planning some college or college graduation. They were less likely to score high on this index than those planning no education after high school. We infer from this data that vocationally oriented students have found high school a less pleasant experience than academically oriented students, but a more pleasant experience than those planning to terminate their education with high school.

It is clear that many students who are dissatisfied with school choose vocational and business training. Consequently, teachers in the vocational and business programs are likely to find that many of their students have an undesirable mental set toward the educational process. However, the fact that many students who plan vocational or business training find high school unsatisfactory presents a challenge to teachers to work out new approaches.

Scholastic and Intellectual Self-Image--Students planning vocational and business training were less likely to think highly of their own intellectual and scholastic abilities than were those planning academic careers.

Students were asked two series of questions designed to measure the image of assessment which each had of his own ability. The first set of questions was called the scholastic self-image index. (See Appendix C for indexing procedures.) It asked students to compare themselves with their classmates on a series of skills necessary in school (Q. 21).

Read and understand textbooks and other material assigned by teachers.

Memorize and remember facts and figures.

Write term papers, book reviews, and short reports.

Study and prepare for tests.

Use encyclopedias, dictionaries, and other types of reference.

Understand and use new materials presented in class such as: a theory in science, formula in math, the cause of a historical event.

Take good notes from lectures or out of class reading.

Recite in class: give oral reports, participate in class discussion.

Students were classified as scoring high, medium, or low on this index.

As can be seen in Table 5, (also Table A-4), students planning vocational or business education were less likely than those planning to attend college, especially those planning to graduate

TABLE 5

PER CENT OF BOYS AND GIRLS SCORING HIGH ON THE SCHOLASTIC SELF-IMAGE INDEX

Educational Plans	Boys	Girls
College Graduate	58	68
Some College	24	42
Business Training	11	23
Vocational Training	10	19
High School Only	5	17



from college, to score high on the scholastic self-image index. Differences between those planning vocational or business education and those planning no post-high school education were very small.

The intellectual self-image index (see Appendix C) consisted of a series of polar adjectives on which students were asked to evaluate themselves (Q. 22).

intellectual . . . . . not intellectual  
 fast . . . . . slow  
 successful . . . . . unsuccessful  
 sharp . . . . . dull  
 alert . . . . . not alert

Students were classified as high, medium, or low on this index. Results are presented in Table 6 (and Table A-5).

TABLE 6  
 PER CENT OF BOYS AND GIRLS SCORING HIGH ON THE  
 INTELLECTUAL SELF-IMAGE INDEX

Educational Plans	Boys	Girls
College Graduate	55	56
Some College	30	34
Business Training	25	22
Vocational Training	22	16
High School Only	16	15

Boys who planned to take vocational or business training were less likely than those planning to graduate from college to score high on this index. They were only a little less likely than those planning to attend but not graduate from college to score high. Boys planning vocational or business training were more likely to score high than were those planning no education after high school. Girls planning vocational training scored about the same as those planning high school only, but lower than those planning business training. Girls planning business and vocational training were less likely than those planning to attend or graduate from college to score high on this index.

These data suggest that students planning vocational or business training are likely to be low in their self-evaluations and



self-confidence. Such an attitude is not conducive to success in any activity. Educators who provide vocational and business training might do well to consider special techniques for giving their students the feelings of success they seem to have missed in high school. High school teachers might evaluate their practices to determine whether they can generate feelings of success in more students.

School Subjects Taken--Students planning business or vocational training had taken more vocational courses in high school than those planning to attend or graduate from college. They are not particularly different on this dimension from those planning no post-high school training.

Students were scored as high, medium, and low on an index of vocational subjects taken\* and on an index of academic subjects taken.\*

Boys who indicated plans to take vocational training were three times as likely as those who plan to graduate from college to score high on the index of vocational subjects taken (Table 7, Table A-6). They were also more likely to score high than were

TABLE 7

PER CENT OF BOYS AND GIRLS SCORING HIGH  
ON THE INDEX OF VOCATIONAL SUBJECTS TAKEN

Educational Plans	Boys	Girls
College Graduate	24	26
Some College	44	37
Business Training	43	59
Vocational Training	73	39
High School Only	69	53

\* Students were asked to indicate the number (1,2,3,4 or more) of semesters each of a number of subjects that they would have completed during their four years of high school (Q. 12). Using responses to this question, an index of vocational subjects taken and an index of academic subjects taken were constructed. Subjects included in the vocational index were agriculture, business, home economics, and shop. Subjects included in the academic index were biology, chemistry, foreign language, history, mathematics, physics, and social studies. The index score consisted of the total number of semesters of each type of subject the student would complete before high school graduation. Scores were divided into high, medium, and low categories on each index.

those who planned some college and those who planned business training. There was little difference in the number of vocational subjects taken by boys planning vocational training and those planning to terminate their education with high school.

Girls planning to take business training were more likely than any other girls to score high on the index of vocational subjects taken. The difference between them and the girls who planned no education after high school was, however, quite small. (The tendency for boys planning vocational education and girls planning business education to score high on the vocational index reflects the fact that business courses were more common for girls in high school and shop courses were more common for boys.)

One might infer from the similarity of vocationally oriented boys and the business oriented girls to the respective high school only students that some students take vocational and business courses in high school as preparation for further training while others take them as job preparation.

Among both boys and girls, those who said they planned business and vocational education scored much lower on the index of academic subjects than did those who planned to attend or graduate from college (Table 8, Table A-7). There was little difference between the high school only group and the vocational and business groups.

TABLE 8

PER CENT OF BOYS AND GIRLS SCORING HIGH  
ON THE INDEX OF ACADEMIC SUBJECTS TAKEN

Educational Plans	Boys	Girls
College Graduate	62	53
Some College	41	33
Business Training	14	4
Vocational Training	11	11
High School Only	10	9

The finding that students planning business or vocational school have taken more vocational and fewer academic subjects in high school suggests two possible interpretations.

First, some students who anticipate vocational or business training after high school see vocational courses as good pre-

paration for this training and do not see much value in academic courses beyond those required. Where this is the case, educators need to ask whether vocational courses as they are now offered in high school are the best type of preparation for post-high school vocational training. They also need to ask whether students who plan to enter vocational education are acquiring adequate general cognitive skills to continually adjust to the changing work situation.

Second, students who ignore academic courses in high school so that can take vocational courses may not find themselves prepared for college entrance. Hence they are "tracked" into vocational education by decisions made early in high school. Where this is the case, high school counselors, teachers, and administrators need to help students become aware of the implications of their decisions and avoid premature tracking.

Social Activities--Students planning to take vocational or business training were less likely than those planning to attend or graduate from college to be active in extracurricular high school activities.

Students were asked to indicate the extent of their involvement in a number of different activities (Q. 18). Each student was assigned a score of high, medium, or low to indicate the extent of his involvement. Boys planning vocational or business training were much less likely than those planning to graduate

TABLE 9

PER CENT OF BOYS AND GIRLS SCORING HIGH  
ON THE EXTRACURRICULAR ACTIVITY INDEX

Educational Plans	Boys	Girls
College Graduate	40	65
Some College	23	51
Business Training	17	30
Vocational Training	17	33
High School Only	12	24

from college to score high on the activity index (Table 9, Table A- 8). They were only a little less likely to score high than those planning to attend but not graduate from college. They were only a little more likely than those planning to terminate

their education with high school to score high. Girls planning vocational or business training scored a little higher than those planning high school only, but lower than those planning to attend or graduate from college.

Similar patterns appear when the number of high office positions held (Q. 20) is considered. (See Table 10 and Table A-9.)

TABLE 10  
PER CENT OF BOYS AND GIRLS SAYING THEY HELD TWO  
OR MORE HIGH OFFICE POSITIONS

Educational Plans	Boys	Girls
College Graduate	42	53
Some College	26	42
Business Training	15	34
Vocational Training	16	22
High School Only	16	21

Boys planning vocational or business training or high school only are less likely than those planning to attend or graduate from college to have held two or more high office positions. The same pattern appears among girls, except that girls planning business training are more likely to have held two or more offices than those planning vocational education or high school only.

These data indicate that students planning vocational or business training are less likely to be involved in the extra-curricular activities of their school than are students who plan to attend or graduate from college. There are two possible interpretations of this finding. Some students who select vocational and business courses of study may not be interested in extra-curricular activities. On the other hand, these activities may be so dominated by the academically oriented students, or so directed toward their needs, that students with other interests do not find participation rewarding.

If participation in school activities is an important part of the educational process for all students, educators need to find ways of making such participation attractive and meaningful to students who are primarily interested in vocational education.



Summary--Students planning vocational or business education, as compared to those planning to attend or graduate from college, had poorer grades, were less interested in their school work, were **more likely** to be dissatisfied with school, had less positive self-images of their own ability, had taken more vocational and fewer academic courses, and had participated less in extracurricular activities. Putting it bluntly, many students headed for vocational education have been "second-class citizens" in their high schools.

While it is not to be expected that all students will be equal in high school, we might question whether students planning vocational education are acquiring in high school the skills and experiences they need if they are to perform effectively as citizens and workers. Are they acquiring the general cognitive skills they will need to progress in and adapt to a changing world of work? If they are not, high school programs need to be re-evaluated. Furthermore, because students planning vocational and business education are less likely to have had self-fulfilling experiences in high school, educators in vocational and business programs will probably have more difficulty motivating them to acquire all of the skills they will need to perform effectively in the world of work.

#### Family Background

Many previous studies have shown that the characteristics of one's family background influence his educational expectations or aspirations. On the basis of these findings, we would expect students planning vocational or business education to be different in their family backgrounds than students planning other types of education. In this section we will examine the relationship of educational expectations to father's occupation, parents' education, perceived family income, willingness of parents to finance different types of education, and family attitudes toward education.

Father's Occupation--The sons of blue-collar workers and farmers are more likely to plan vocational training than are the sons of white-collar workers. The daughters of blue-collar and clerical workers are more likely than the daughters of men in other occupations to choose vocational or business education.

The relationship between father's occupation (Q. 47) and son's educational plans is shown in Table 11. Occupations which rank high in the proportions of sons planning to take vocational training include: service 42%, laborer 36%, craftsmen 29%, operative 25%, and farmer 22%. Regardless of father's occupation,

the proportion of boys planning business education was low. As might be expected, the proportion of boys planning to graduate from college increases roughly as the prestige of father's occupation increases.

TABLE 11  
PER CENT OF BOYS EXPECTING EACH TYPE OF EDUCATION  
BY FATHER'S OCCUPATION

Occupation of Father	Educational Plans					
	College Grad.	Some College	Business Training	Vocational Training	High School Only	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	No.
Professional	72	13	4	9	3	252
Farmer	35	22	4	22	17	23
Manager	58	21	7	12	3	258
Clerical	58	17	6	3	17	36
Sales	59	25	4	10	1	91
Craftsmen	40	18	4	29	10	304
Operative	33	21	8	25	13	119
Service	19	17	14	42	8	36
Laborer	23	21	1	36	19	90

Table 12 shows the relationship between father's occupation and girls' educational plans. Occupations which rank highest in proportion of daughters planning to take business education are:

TABLE 12  
PER CENT OF GIRLS EXPECTING EACH TYPE OF EDUCATION  
BY FATHER'S OCCUPATION

Occupation of Father	Educational Plans					
	College Grad.	Some College	Business Training	Vocational Training	High School Only	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	No.
Professional	63	20	7	7	3	238
Farmer	58	17	8	8	8	24
Manager	48	31	10	6	5	271
Clerical	18	35	24	24	0	17
Sales	50	20	14	8	8	99
Craftsmen	34	16	19	16	14	261
Operative	30	18	20	17	15	112
Service	30	13	28	19	11	47
Laborer	24	19	18	20	18	120



service 28%, clerical 24%, operative 20%, craftsmen 19%, laborer 18%. Those ranking highest in terms of the proportion of daughters planning vocational training are: clerical 24%, laborer 20%, service 19%, operative 17%, and craftsmen 16%. There is, as in the case of the boys, a tendency for the proportion of girls planning to graduate from college to increase as the prestige of father's occupation increases.

The picture that emerges from this analysis shows that having a father in a prestigious and well-paid occupation increases the probability of planning to go to college, whereas having a father in a low prestige, low paid occupation increases the probability of having plans for vocational or business education and, except for daughters of clerical workers and sons of service workers, to plan to take no post-high school education. To put it more succinctly, occupational stratification has a powerful positive impact on educational plans.

Parents' Education--Students who planned vocational or business education were less likely to have parents who have attended college than were students who planned to attend college.

Father's Education. Students were asked to indicate the highest grade completed by their father (Q. 52). Results appear in Table 13 (and Table A-10).

TABLE 13

PER CENT OF STUDENTS SAYING THEIR FATHER  
HAD COMPLETED ONE OR MORE YEARS OF COLLEGE

Educational Plans	Boys	Girls
College Graduate	56	54
Some College	39	46
Business Training	24	25
Vocational Training	20	21
High School Only	10	24

Boys planning vocational or business training were less likely than those planning to attend or graduate from college to have fathers who had attended college. They were more likely than those planning high school only to have fathers who had attended college. Girls planning vocational or business training were less likely than those planning to attend or graduate from college to report that their father attended college, but there was little difference between those planning business or vocational school and those planning high school only.

Mother's Education. Students were also asked how much education their mothers had received (Q. 53). Summary data appear in Table 14 and more complete data in Table A-11.

TABLE 14

PER CENT OF STUDENTS SAYING THEIR MOTHER  
HAD COMPLETED ONE OR MORE YEARS OF COLLEGE

Educational Plans	Boys	Girls
College Graduate	49	49
Some College	34	43
Business Training	19	21
Vocational Training	16	20
High School Only	14	10

Boys planning business or vocational education were less likely than those planning to attend or graduate from college to have mothers who attended college. There was little difference between those who were planning business or vocational school and those planning high school only. Girls planning business or vocational training were less likely than those planning to attend or graduate from college, and more likely than those planning high school only, to have mothers who attended college.

These data indicate that parents' education is associated with the educational plans of students. In general, those planning business or vocational training had parents with less education than those planning to attend or graduate from college. The educational example set by the parents apparently affects the educational plans of high school students. In addition, the education which parents have had probably influences the type of educational advice which they give to their children.

Perceived Family Income--Students planning vocational or business education were less likely than those planning to graduate from college to think that their families have above average income. They were a little more likely than those planning no post-high school education to perceive their family income as being above average.

The perceptions which students had of their family income were determined by responses to the following question (Q. 50):

In terms of income or wealth in my community, I think my family is:

- \_\_\_\_\_ (1) Considerably above average
- \_\_\_\_\_ (2) Somewhat above average
- \_\_\_\_\_ (3) Average
- \_\_\_\_\_ (4) Somewhat below average
- \_\_\_\_\_ (5) considerably below average

The percentage of students in each education category who felt that their family income is above average appears in Table 15. (See also Table A-12.)

TABLE 15

PER CENT OF STUDENTS THINKING THEIR FAMILY HAD ABOVE AVERAGE INCOME

Educational Plans	Boys	Girls
College Graduate	55	52
Some College	42	44
Business Training	39	33
Vocational Training	28	29
High School Only	20	19

Among boys, those planning to take vocational training were a little more likely than those planning no education after high school to feel that their families had above average incomes. Those planning business training were more likely than those planning vocational training, but only slightly less likely than those planning to attend but not graduate from college to have had perceived family incomes above the average. Those planning to graduate from college were most likely to have perceived family income above the average. Patterns among girls were somewhat similar except for the fact that those planning business education and those planning vocational training were more nearly alike.

These data indicate that a student's perception of the adequacy of family finances affects the kind of education he chooses.

Willingness of Parents to Finance Education--Most students planning vocational training felt that their parents would help them financially in vocational school. Only a minority of them felt that their parents would help them finance a college education.

Students were asked to indicate whether their parents would be willing to help them financially in college and vocational school (Q. 54). (It was possible for a student to indicate that his parents would help him in more than one activity.) The per cent of students who said that their parents would help them financially in college and in vocational school is shown in Table 16 (See also Table A-13.)

TABLE 16

PER CENT OF BOYS AND GIRLS SAYING PARENTS WOULD BE WILLING TO HELP FINANCE COLLEGE OR VOCATIONAL SCHOOL

Parental Financing	Educational Plans				
	College Grad.	Some College	Business Training	Vocational Training	High School Only
Boys for College	92	85	61	40	35
Boys for Vocational School	24	30	33	72	28
Girls for College	94	89	50	41	37
Girls for Vocational School	30	38	64	85	47

Seventy-two per cent of the boys and 85 per cent of the girls who plan to take vocational training felt that their parents would provide them with some help in this activity. Sixty-four per cent of the girls planning business education felt that their parents would help them in vocational school. The percentage of each of these groups who felt that their parents would help them finance a college education was much smaller. Almost all of those who planned to go to college felt that their parents would help them financially.

These data suggest that many students select their education on the basis of the financial support they think they will be able to get. It would be unwise for a student to select his

education without concrete financial plans. However, it is to be hoped that financial programs can be arranged so that students will be able to choose that education which is most appropriate to them regardless of their families' ability to pay for it.

Family Attitudes toward Education--While most students said that their families expect them to get all of the education they can, boys planning vocational training and girls planning vocational and business training were less likely to give this response than were students planning on a college education.

Students were asked how many members of their family agreed with each of a number of statements about education. One of these statements was "They expect the younger members of the family to get all of the education they can." (Q. 51c.) Table 17 shows the per cent of students responding "All of them" to this question. (See also Table A-14.)

TABLE 17  
PER CENT OF STUDENTS SAYING ALL OF FAMILY EXPECTS THEM TO GET ALL THE EDUCATION POSSIBLE

Educational Plans	Boys	Girls
College Graduate	76	73
Some College	69	57
Business Training	74	50
Vocational Training	59	50
High School Only	52	46

Among boys, those indicating plans for vocational training were less likely to give this response than those planning college graduation, some college, or business training. They were only a little more likely than students planning high school only to give this response. Girls planning vocational or business training were less likely than those planning to graduate from college to indicate that all of the members of their family expected them to get the maximum possible education. They were only a little less likely than those planning some college and a little more likely than those planning high school only to give this response. These data suggest that vocational and business oriented students are less likely than the college bound to have been encouraged by other members of their families to maximize their education.



Summary--Students planning vocational or business education were found to have somewhat different family backgrounds than those planning to attend college, especially those planning to graduate from college. In many respects they were also different from those planning to terminate their education with high school. The sons of blue-collar workers are more likely than the sons of men in other occupations to plan vocational training. The daughters of men in blue-collar and clerical occupations are most likely to plan business and clerical occupations. Students planning business or vocational training were less likely to have parents who had had some college than were students who plan college attendance. Students planning vocational education were more likely than students planning academic education in college to perceive their parents as willing to provide financial support for vocational school but less likely to believe that parents would be willing to support college education. Families of students planning vocational school or business education were perceived to be more likely than those planning high school only, but less likely than those planning college to believe that their children should get all of the education they could.

Peer Group Influences

Many previous studies have shown that the behavior and expectations of one's peers tend to influence his behavior and his educational expectations. In this section we will examine data to determine whether those students who plan vocational or business education have had friends with different kinds of educational behavior and plans than students planning to attend college and students planning no education after high school.

Number of Friends Who Dropped Out of School--Students planning to take business or vocational training or to take no post-high school education were more likely than those planning to attend college to report that some of their friends had dropped out of high school.

TABLE 13

PER CENT OF STUDENTS SAYING THAT ONE OR MORE FRIENDS DROPPED OUT OF HIGH SCHOOL

Educational Plans	Boys	Girls
College Graduate	5	6
Some College	11	8
Business Training	18	22
Vocational Training	22	17
High School Only	30	23



Students were asked whether any of their friends had dropped out of high school (Q. 58 and Q. 59). The proportion of students reporting that one or more friends had dropped out of school is shown in Table 18. (See also Table A-15.)

Among both boys and girls, students expecting to take vocational or business training were more likely to say that one or more of their friends had dropped out of school than were those planning to attend or graduate from college. Boys who planned to terminate their education with high school were more likely than any other group to report that some of their friends dropped out of high school. Girls who indicated high school as their highest educational expectation, and girls planning business training were more likely than other girls to report that some of their friends had dropped out of school.

These findings show that students who planned vocational and business training were more likely than those planning college to have peers who place a low value on education.

Educational Plans of Friends--The educational plans of students were found to be related to the perceived educational plans of their friends.

Students were asked to indicate the proportion of their friends they thought were planning to attend college (Q. 61g). Table 19 reports the proportion of students with each type of educational plans who said that they thought all or most of their friends planned to attend college. (See also Table A-16.)

TABLE 19

PER CENT OF STUDENTS SAYING ALL OR MOST  
OF THEIR FRIENDS PLAN TO ATTEND COLLEGE

Educational Plans	Boys	Girls
College Graduate	84	83
Some College	63	70
Business Training	57	40
Vocational Training	34	44
High School Only	17	26

It will be noted that some students in all categories said that they thought all or most of their friends planned to attend college. Both boys and girls planning to acquire business or vocational training were more likely than those expecting to terminate their education with high school to say that all or most of their friends planned to attend college. If we assume that the proportion of one's friends planning to attend college indicates the amount of support one has from his peer group for continuing education, then these data indicate that those students who planned vocational or business training have received more peer group support for continuing their education than have those who planned to terminate their education with high school.

Girls planning vocational or business training were less likely than those planning to attend or graduate from college to indicate that all or most of their friends planned to attend college. The same was true of boys, but there was little difference between boys planning business education and those planning some college. This indicates that students planning to attend college had received more support from peers for continuing their education than those who did not plan a college education.

Students were also asked to indicate the proportion of their friends who planned to attend vocational school (Q. 61h). The number of students planning to take vocational training was much smaller than the number planning to attend college. Therefore, it will be more illuminating to focus on the proportion of students in each category who said that none of their friends were planning vocational training.

TABLE 20

PER CENT OF STUDENTS SAYING NONE OF THEIR FRIENDS  
PLAN TO TAKE VOCATIONAL TRAINING

Educational Plans	Boys	Girls
College Graduate	31	28
Some College	15	16
Business Training	12	10
Vocational Training	4	2
High School Only	12	17

It can be seen in Table 20 (also Table A-17) that only 4 per cent of the boys and 2 per cent of the girls planning to attend vocational school said that none of their friends plan

to attend vocational school. That is to say, almost every student who planned to attend vocational school had some peer group support for his decision, in that he had friends with similar educational goals. Students planning to take business training, to terminate their education with high school, or to attend but not graduate from college were all less likely than those planning to graduate from college to say that none of their friends planned to attend vocational school.

These data suggest that there was a tendency for students to associate with peers who have similar educational plans, but that this tendency did not result in peer groups that were completely homogeneous in respect to educational plans.

Friends' attitudes Toward Vocational Education--Students planning vocational education perceived their friends as being more favorable toward vocational education than did those planning college.

A central assumption of many authors who suggest that a student's educational plans are affected by his peer group is that the attitudes held by one's peers affect one's own attitudes. If this assumption is correct, we would expect students who were planning to take vocational or business training to be more sympathetic than those planning college toward the offering of business-vocational education courses in high school.

The following set of questions, referred to as the index of perceived friends' attitudes toward vocational education, was included in the questionnaire (Q. 62). (See Appendix C for indexing procedure.)

Please indicate the extent to which each of the statements below reflects the attitudes or feelings of students you know at school.

The high school curriculum should be more directly related to specific jobs.

There should be more emphasis on vocational and technical courses and less on college preparation.

Shop courses are good preparation for the kind of work many students will be doing.

High school should do more to provide students with skills useful in jobs and should not worry so much about college preparation.

Students were scored as high, medium, or low on this index. The results appear in Table 21 (and Table A-18).

TABLE 21

PER CENT OF STUDENTS SCORING HIGH ON THE INDEX  
OF PERCEIVED FRIENDS' ATTITUDES TOWARD VOCATIONAL EDUCATION

Educational Plans	Boys	Girls
College Graduate	15	16
Some College	26	22
Business Training	43	38
Vocational Training	42	40
High School Only	41	51

Students planning to take vocational or business training, or to terminate their education with high school, were more likely to score high on this index than were those planning to attend or graduate from college. This shows that the educational plans of students were related to the attitudes perceived as held by other students with whom they associated.

Friends' Expectations Concerning Education--Students planning vocational and business education were less likely than those planning to graduate from college to feel that the peer group expects each individual member to get all of the education he could.

Students were asked how many of their close friends "expect the members of our group to get all of the education they can?" (Q.60f). Table 22 shows the proportion of students responding "all" or "most" of their friends. (See also Table A-19). The majority of the students said that all or most of their friends expected them to get all of the education possible. This reflects the high value placed on education by the student community. Those planning to graduate from college are most likely to give this response. Among boys, those planning vocational training and those planning only high school were least likely to give this response.

These data suggest that the value placed on education by one's peer group may have some effect on his own educational plans.

Summary--The information presented in this section shows that students planning vocational or business training had been exposed to somewhat different patterns of peer group pressures than had those planning to attend college, and in some cases different from those planning to terminate their education with high school. This suggests that any program intended to provide guidance or motivation for students who are in or who expect to enter vocational or business education programs must recognize the importance of peer group attitudes and pressures.

TABLE 22

PER CENT OF STUDENTS SAYING CLOSE FRIENDS EXPECT  
THEM TO GET ALL OF THE EDUCATION THEY CAN

Educational Plans	Boys	Girls
College Graduate	70	73
Some College	61	60
Business Training	57	57
Vocational Training	51	60
High School Only	50	45

The Relationship of Educational  
Plans and Occupational Expectations

If a student chooses a specific occupation he may commit himself to one or sometimes one of a few different kinds of education. If he chooses a certain type of education he may place himself in a route that leads to a limited selection of occupations. If a student is not aware of these consequences of educational and occupational decisions he may make mistakes which will be hard to correct.

In this section we will examine the relationship between the educational expectations of students and their occupational expectations. Our main purpose will be to determine whether there are students who do not seem to recognize the importance of correlating their educational plans with their occupational plans.

Students were asked: "What occupation do you really expect to have as your life's work?" The answers were coded according to the census classification. Table 23 shows the occupational expectations of students with each type of educational plans.

As might be expected, type of education planned and type of occupation a student expected to be in were generally compatible. Boys planning business education were more likely than other boys to expect careers in managerial, sales or clerical occupations. Girls who planned business training were more likely than other girls to expect clerical careers. Boys planning to take vocational training were more likely than others to expect careers as skilled craftsmen. Girls planning vocational training were more likely than other girls to expect to enter service occupations. Boys who indicated no plans for post high school education were more likely than others to expect to be laborers. Among both boys and girls those planning to graduate from college were more likely than any other group to say they expected to enter professional occupations.

The extent of agreement between educational plans and occupational expectations was, however, by no means perfect. Many students said that they expected to have as their life's work



TABLE 23

## OCCUPATIONAL EXPECTATIONS, BY SEX AND EDUCATION PLANS

Occupational Expectations	Boys						Girls								
	College Grad.	Some College	Business Training	Vocational Training	High School	College Grad.	Some College	Business Training	Vocational Training	High School	College Grad.	Some College	Business Training	Vocational Training	High School
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Professional	80	66	20	26	14	56	27	7	16	12	56	27	7	16	12
Farmer	1	2	4	2	5	0	0	0	0	0	0	0	0	0	0
Manager	13	9	24	2	1	14	2	0	0	0	4	15	0	0	0
Clerical	0	2	6	0	1	4	15	46	14	11	4	15	46	14	11
Sales	3	2	12	1	1	0	0	3	2	3	0	0	3	2	3
Craftsmen	1	14	20	53	39	0	1	1	0	0	0	1	1	0	0
Operative	0	2	2	8	6	0	0	0	1	1	0	0	0	1	1
Service	1	2	4	4	10	36	47	34	34	62	36	47	34	34	62
Laborer	0	1	8	3	22	1	8	7	32	10	1	8	7	32	10
Total Respondents	544	167	50	205	79	538	260	206	161	116	538	260	206	161	116

occupations for which they will not be prepared by the education which they plan to obtain. For example, 66 per cent of the boys and 27 per cent of the girls who plan to attend but not graduate from college said that they expect to pursue professional or technical careers. While a few persons may enter these occupations without a college degree, it is unlikely that such large proportions will. Fourteen per cent of the boys and 12 per cent of the girls who planned to terminate their education with high school said they planned to enter professional or technical occupations. If these answers can be accepted as serious there is little doubt that most of these students are unrealistic in their plans for the future.

Of most concern to us in this report are students who plan to take business or vocational training. Fifty-three (26 per cent) of the boys planning vocational training and ten (20 per cent) of the boys planning business training said they expect to enter professional or technical occupations. There are some technical occupations which could be entered with vocational or business training. However, only eleven of the boys planning vocational training and none of the boys planning business training listed as their expected career an occupation which can reasonably be classified as technician. Twenty-five (16 per cent) of the girls planning vocational training and fifteen (7 per cent) of the girls planning business training said they expected to enter professional or technical occupations. However, only three of those planning vocational training and none of those planning business training selected an occupation classified as technician. Thus, 103 of the 622 students who indicated that the highest educational level they expected to attain was either vocational or business training said that they planned to spend most of their working lives in professional occupations. Only fourteen of these 103 students listed occupations classified as technician. This finding suggests that a significant minority of the students who plan to acquire vocational or business training were confused about the kinds of occupations for which this training will prepare them.

Another way to look at the relationship between educational and occupational plans is to ask: What kinds of training do students planning to enter various occupations expect to get? Data to answer this question is presented in Table 24. These data will provide some suggestions about the kinds of occupations for which students think business and vocational training will be useful.

The occupations toward which vocational education is most explicitly directed are the crafts, operatives, clerical, sales, and service occupations. Sixty-one per cent of the boys who said they expected to become skilled craftsmen or operatives indicated that they planned to take vocational training. This suggests that vocational training is seen as a major route for access to these occupations. While 21 per cent of the boys who expected to become salesmen planned business or commercial training, 69 per cent expect to attend or graduate from college. These

TABLE 24

## EDUCATIONAL EXPECTATIONS, BY SEX AND OCCUPATIONAL EXPECTATIONS

Occupational Expectations	Boys Educational Plans					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	No.
Professional	70	18	2	9	2	621
Farmers	20	20	13	20	27	15
Managerial	69	14	11	5	1	105
Clerical	*	*	*	*	*	9
Sales	59	10	21	7	3	29
Craftsmen	3	12	6	61	17	173
Operatives	4	14	4	61	18	23
Pvt. Household	*	*	*	*	*	0
Service	21	14	7	31	28	29
Laborers	7	3	13	23	55	31
	Girls Educational Plans					
	Pct.	Pct.	Pct.	Pct.	Pct.	No.
Professional	71	17	4	6	3	424
Farmers	*	*	*	*	*	1
Managerial	74	21	5	0	0	19
Clerical	12	20	50	12	7	192
Sales	6	6	44	25	19	16
Craftsmen	*	*	*	*	*	4
Operatives	*	*	*	*	*	3
Pvt. Household	38	24	14	11	14	514
Service	7	20	14	48	11	103
Laborers	*	*	*	*	*	0

\* Percentages not computed where base number was less than 10

data suggest that boys planning careers in the sales occupations are more likely to see academic training as a successful route to their goals than they are to see business or commercial training. Thirty-one per cent of the boys who planned to enter service occupations expect to get their training in vocational schools.

Fifty per cent of the girls who planned careers in clerical occupations and 44 per cent of those expecting to enter sales work planned to take business or commercial training. This suggests that girls planning to enter clerical and sales occupations regarded business and commercial courses as a major source of access. Forty-eight per cent of the girls expecting to enter service occupations apparently regarded vocational training as appropriate preparation.

The data presented immediately above suggest that vocational training was seen by boys as a major means of access to skilled crafts and operative occupations. Some boys saw it as preparation for sales and service occupations. Girls saw vocational training as the major means of access to the service occupations. Business or commercial training was seen by girls as the principal means of access to clerical and sales occupations.

Findings similar to those noted above are also found when we examine the educational expectations of students who say they expect to enter certain specified occupations. Such a classification appears in Tables 25 and 26. It can be seen in Table 25 that 70 per cent of the boys planning to enter the skilled trades specified, 69 per cent of those planning to become mechanics or repairmen, and 61 per cent of those planning to become technicians expect to acquire vocational training. Sixty-nine per cent of the girls who planned to become beauty operators expected to acquire vocational training. Fifty-three per cent of the girls who expected to become secretaries planned to take business or commercial training. These findings support the inference that vocational or business training either in junior colleges or in other schools is seen as the principal means of access to some occupations.

Other data presented in Tables 25 and 26 show that some students do not have adequate knowledge of the educational and occupational structure to make realistic plans. Many students do not expect to get as much education as will be required to enter the occupations they plan to enter. For example, many students who claimed they planned to be natural scientists, engineers, foresters, lawyers, teachers, and social workers did not expect to graduate from college. With particular regard to the main focus of this report, it will be noted that 6 per cent

TABLE 25

EDUCATIONAL EXPECTATIONS OF BOYS PLANNING TO  
ENTER SPECIFIC OCCUPATIONS

Occupational Expectations	Educational Plans					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	No.
Natural Scientist	79	14	0	4	4	28
Engineer	80	13	0	6	1	94
Forester	52	21	0	25	2	52
Lawyer	83	17	0	0	0	41
Physician	96	4	0	0	0	27
Teacher	79	19	1	1	0	97
Skilled Trades Mechanic- Repairman	4	9	4	70	13	24
	3	9	6	59	13	87

TABLE 26

EDUCATIONAL EXPECTATIONS OF GIRLS PLANNING TO  
ENTER SPECIFIC OCCUPATIONS

Occupational Expectations	Educational Plans					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	No.
Musician	77	8	0	0	15	13
Nurse	68	13	2	13	5	63
Social Worker	78	13	9	0	0	23
Teacher	77	20	0	2	1	151
Technician	76	10	0	14	0	121
Secretary	13	22	53	7	5	136
Beauty Operator	0	7	13	69	11	62
Airline Stewardess	15	52	21	9	3	33
Housewife	38	24	14	11	14	533



of the boys who said they expected to be engineers and 24 per cent of the boys who said they expected to be foresters listed vocational education as the highest level of education they expected to achieve.

Students who indicated that they did not plan to get all the education they need for the job they expect to be in may be confused about the educational requirements for different occupations. They may be confused about the kinds of training they can get in different kinds of schools. Or they may not know what is involved in such occupations as engineering or forestry. Whatever the nature of the confusion, it is clear that many high school students, including many who plan to take vocational or business education, need additional knowledge of the occupational structure, and the educational requirements for entering different occupations.

The data reviewed in this section support the following conclusions: (1) there was a general compatibility between the type of education a student expected to get and the type of occupation that he planned to enter; (2) however, a significant minority of students were not planning to acquire the type of education needed to prepare for the occupations they expected to enter; and (3) vocational and business training was seen as a principal means of access to some occupations.

## DISCUSSION

The general picture that emerged from our analysis is consistent with the conceptual frame of reference presented at the outset. The findings provide additional support for the view that the plans and behavior patterns of adolescents are influenced by family circumstances and values, by peer group values, by school experiences and by self-concept of ability. There are, of course, many factors involved but these tend to converge so that those who are disadvantaged in one respect may be disadvantaged in other respects.

Our analysis does not indicate which factors have the greatest influence on academic achievement or level of educational expectations; it would be desirable to explore this matter in subsequent analyses.

## CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

The major conclusion that emerges from the findings of the study is that there were a number of important differences between

the backgrounds, school experiences, and attitudes of students who were planning to take vocational or business training and those who were planning to attend college, especially those who planned to graduate from college.

Although the analysis does not provide conclusive evidence, the findings imply that for many students, school experiences tend to reinforce rather than to dispel the handicap to educational achievement and subsequent upward occupational mobility of having been born into a family with low socio-economic status.

If the schools are to become more effective agencies for removing the social and economic handicaps inherent in initial deprivation, major changes in objectives, operating policies, courses and teaching methods may have to occur. Current practices tend to reward and thus to encourage those who are successful as judged by the grading system. The main thrust tends to be toward college and the elite occupations. Those who fail to meet the competitive standards imposed by the grading system become discouraged and tend to have a low self-concept of their ability as scholars and as potential performers of occupational roles.

We are not competent to make specific recommendations for changes. If changes are desired it would appear to be necessary for educational policy makers with the assistance of social scientists to examine relevant objectives, courses, policies and teaching methods to determine what changes should be made to meet more effectively the educational needs of students who are not bound for college. Continuing research on the consequences of specific changes would, of course, be essential.

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APPENDIX A  
DETAILED STATISTICAL TABLES

- A-1: Grades on Last Report Card, by Sex and Educational Plans
- A-2: Interest in School Work, by Sex and Educational Plans
- A-3: Dissatisfaction with School, by Sex and Educational Plans
- A-4: Scholastic Self-Image, by Sex and Educational Plans
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- A-6: Index of Vocational Subjects Taken, by Sex and Educational Plans
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- A-13: Perceived Willingness of Parents to Provide Financial Help, by Sex and Educational Plans
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- A-15: Number of Friends Who Have Dropped out of School, by Sex and Educational Plans
- A-16: College Plans of Friends, by Sex and Educational Plans
- A-17: Vocational Training Plans of Friends, by Sex and Educational Plans
- A-18: Perceived Friends' Attitudes toward Vocational Education, by Sex and Educational Plans
- A-19: Educational Expectations of Friends for Group Members, by Sex and Educational Plans

TABLE A-1  
GRADES ON LAST REPORT CARD, BY SEX AND EDUCATIONAL PLANS

Grades Received on Last Report Card	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
A's	13	2	0	0	1	7	23	7	2	3	11	
A's and B's	22	10	3	4	2	13	33	19	12	10	21	
B's	18	15	7	7	4	13	22	24	15	7	18	
B's and C's	26	33	28	20	14	25	15	27	30	21	23	
C's	15	25	27	33	26	22	6	17	23	19	16	
C's and D's	5	12	25	28	22	15	1	6	14	30	9	
D's or D's and F's	1	3	10	8	21	5	0	1	4	10	2	
Respondents	682	265	71	281	125	1424	580	293	211	135	1390	
Nonrespondents	10	4	2	4	2	22	5	5	7	1	21	



TABLE A-2

## INTEREST IN SCHOOL WORK, BY SEX AND EDUCATIONAL PLANS

Amount of School Work Interested in	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
All	14	9	6	6	2	10	27	12	12	13	8	18
Most	65	56	43	44	29	55	65	59	58	48	62	62
Some	18	29	40	39	46	28	7	24	21	31	16	16
Little	2	5	8	10	20	6	1	5	8	10	4	4
None	1	1	3	1	3	1	0	0	0	2	0	0
Respondents	690	266	72	284	127	1439	582	217	174	135	1406	1406
Nonrespondents	2	3	1	1	0	7	3	1	0	1	5	5

TABLE A-3

DISSATISFACTION WITH SCHOOL, BY SEX AND EDUCATIONAL PLANS

Index of Dis- satisfaction with School	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
High	32	47	63	59	74	45	18	32	46	47	60	33
Medium	39	34	30	32	19	35	37	36	36	33	22	35
Low	29	19	7	9	7	20	45	32	18	20	18	32
Respondents	691	268	73	285	126	1443	585	298	217	173	136	1409
Nonrespondents	1	1	0	0	1	3	0	0	1	1	0	2

TABLE A-4

SCHOLASTIC SELF-IMAGE, BY SEX AND EDUCATIONAL PLANS

Scholastic Self-Image Index	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
High	58	24	11	10	.5	35	68	42	23	19	17	44
Medium	30	41	43	25	25	31	25	38	41	41	22	32
Low	12	35	46	66	70	34	7	20	36	40	61	24
Respondents	690	269	72	281	126	1438	533	298	217	174	135	1407
Nonrespondents	2	0	1	4	1	8	2	0	1	0	1	4

TABLE A-5

INTELLECTUAL SELF-IMAGE, BY SEX AND EDUCATIONAL PLANS

Intellectual Self-Image Index	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
High	55	30	25	22	16	39	56	34	22	16	14	37
Medium	34	37	34	40	35	36	30	41	43	39	31	36
Low	11	33	41	38	49	25	14	25	35	45	55	27
Respondents	679	265	68	269	114	1395	570	290	206	166	130	1362
Nonrespondents	13	4	5	16	13	51	15	8	12	8	6	49

TABLE A-6

INDEX OF VOCATIONAL SUBJECTS TAKEN, BY SEX AND EDUCATIONAL PLANS

Index of Vocational Subjects Taken	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
High	24	44	43	73	68	42	26	37	59	39	53	37
Medium	27	23	32	18	16	24	29	29	22	36	29	29
Low	49	33	25	9	16	34	45	34	19	25	18	34
Respondents	690	268	72	280	121	1431	582	296	210	167	133	1388
Nonrespondents	2	1	1	5	6	15	3	2	8	7	3	23



TABLE A-7

INDEX OF ACADEMIC SUBJECTS TAKEN, BY SEX AND EDUCATIONAL PLANS

Index of Academic Subjects Taken	Boys							Girls						
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total		
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
Low	10	24	46	59	62	29	11	26	56	53	67	31		
Medium	28	35	40	30	28	30	36	41	40	35	26	37		
High	62	41	14	11	10	41	53	33	4	11	7	32		
Respondents	690	268	72	280	121	1431	582	296	210	167	133	1388		
Nonrespondents	2	1	1	5	6	15	3	2	8	7	3	23		

TABLE A- 8  
 EXTRACURRICULAR ACTIVITY INDEX, BY SEX AND EDUCATIONAL PLANS

Extracurricular Activity Index	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
High	40	22	17	17	12	29	65	51	30	33	24	49
Medium	34	38	29	23	28	32	26	27	36	36	25	29
Low	26	40	54	60	60	39	9	22	34	31	51	22
Respondents	681	262	69	270	118	1400	582	291	212	168	123	1376
Nonrespondents	11	7	4	15	9	46	3	7	6	6	13	35

TABLE A-9

NUMBER OF HIGH OFFICE POSITIONS HELD, BY SEX AND EDUCATIONAL PLANS

Number of High Office Positions Held	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
None	38	50	58	60	71	47	27	39	47	53	58	38
One	20	23	27	24	13	21	21	20	19	25	21	21
Two	19	12	10	12	12	15	24	20	14	11	7	18
Three	11	8	0	3	4	8	13	10	7	6	6	10
Four	6	5	3	1	0	5	8	6	7	3	3	7
Five or more	6	2	2	1	0	4	7	5	6	2	5	6
Respondents	595	211	59	213	76	1154	528	255	169	140	104	1196
Nonrespondents	97	58	14	72	51	292	57	43	49	34	32	215

TABLE A-10  
FATHER'S EDUCATION, BY SEX AND EDUCATIONAL PLANS

Education Completed by Father	Boys							Girls						
	College Grad.	Some College	Business Training	Vocational Training	High School	Total		College Grad.	Some College	Business Training	Vocational Training	High School	Total	
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	
Grade School (1-7)	1	2	2	3	10	3		2	1	4	6	8	3	
Grade School (8)	7	11	13	18	22	12		8	11	17	17	21	13	
High School (9-11)	8	13	12	20	27	13		8	9	21	14	17	12	
High School (12)	29	36	50	40	31	34		28	33	34	42	31	32	
College (1-3)	19	18	16	13	6	17		13	23	16	14	17	18	
College (4)	17	12	4	4	2	11		13	13	3	4	4	12	
College (5 or more)	19	9	3	2	2	11		17	10	5	3	2	10	
Respondents	670	256	68	271	112	1377		558	285	203	161	127	1334	
Nonrespondents	22	13	5	14	15	69		27	13	15	13	9	77	

TABLE A-11

## MOTHER'S EDUCATION, BY SEX AND EDUCATIONAL PLANS

Education Completed by Mother	Boys							Girls						
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total		
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
Grade School (1-7)	0	1	0	2	2	1	0	0	1	4	4	1		
Grade School (8)	3	2	9	8	12	5	4	5	10	18	10	7		
High School (9-11)	7	9	16	21	26	12	7	14	20	27	19	14		
High School (12)	41	55	57	54	47	47	40	39	47	42	47	42		
College (1-3)	29	20	10	11	10	20	27	29	17	8	14	22		
College (4)	14	10	7	4	4	10	15	12	3	1	6	10		
College (5 or more)	6	3	1	2	0	4	6	2	1	2	1	3		
Respondents	671	260	69	268	113	1381	563	290	211	130	163	1357		
Nonrespondents	21	9	4	17	14	70	22	8	7	6	11	54		



TABLE A-12  
PERCEIVED FAMILY INCOME, BY SEX AND EDUCATIONAL PLANS

Perceived Family Income	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Considerably above average	10	5	10	6	3	7	8	7	3	4	4	6
Somewhat above average	45	37	29	22	17	36	44	38	30	15	35	35
Average	40	52	57	61	66	50	43	48	59	72	52	52
Somewhat below average	4	5	3	9	11	6	5	6	6	8	6	6
Considerably below average	1	1	1	2	3	1	0	1	2	1	1	1
Respondents	669	265	69	277	121	1401	568	292	210	133	1374	1374
Nonrespondents	23	4	4	8	6	45	17	6	8	3	37	37

TABLE A-13  
 PERCEIVED WILLINGNESS OF PARENTS TO PROVIDE FINANCIAL HELP  
 BY SEX AND EDUCATIONAL PLANS

Activities for which parents would provide financial help	Boys							Girls						
	College Grad.	Some College	Business Training	Vocational Training	High School	Total		College Grad.	Some College	Business Training	Vocational Training	High School	Total	
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	
Farming	7	7	1	9	7	7		3	2	2	1	3	3	
College	92	85	61	40	35	74		94	89	50	41	37	87	
Vocational schooling	24	30	33	72	28	35		30	38	64	85	47	45	
Setting up own business	17	13	11	12	8	14		9	8	8	7	9	8	
None of the above	6	11	20	14	42	12		4	5	12	6	36	8	
Respondents	680	263	70	775	121	1409		577	292	214	169	128	1380	
Nonrespondents	12	6	3	10	6	37		8	6	4	5	8	31	

TABLE A-14  
 FAMILY EXPECTATIONS FOR STUDENTS EDUCATION  
 BY SEX AND EDUCATIONAL PLANS

Proportion of Family Expecting Students to get All the Education They Can	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
All of them	76	69	74	59	52	69	73	57	50	50	46	60
Most of them	11	17	12	17	21	15	13	17	14	14	20	15
About half of them	3	2	2	6	8	4	2	7	5	5	7	5
Only a few of them	1	3	4	7	4	3	3	3	7	7	8	4
None of them	9	9	8	11	15	9	9	16	24	24	19	16
Respondents	667	262	66	264	116	1375	553	289	200	166	125	1333
Nonrespondents	25	7	7	21	11	71	32	9	18	8	11	78

**TABLE A-15**  
**NUMBER OF FRIENDS WHO HAVE DROPPED OUT OF SCHOOL**  
**BY SEX AND EDUCATIONAL PLANS**

Number of Friends who Dropped out of School	Boys							Girls						
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total		
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
None	95	89	82	78	70	88	94	92	78	83	77	88		
One	3	8	10	12	14	7	5	5	11	14	13	8		
Two	1	2	5	5	8	3	1	2	7	2	5	3		
Three or more	1	1	3	5	8	2	0	1	4	1	5	1		
Respondents	635	266	72	280	123	1426	579	296	218	170	134	1397		
Nonrespondents	0	0	0	0	0	0	0	0	0	0	0	0		

TABLE A-16  
COLLEGE PLANS OF FRIENDS, BY SEX AND EDUCATIONAL PLANS

Proportion of Friends Planning to Attend College	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
All of them	39	20	17	6	3	25	39	26	10	7	6	25
Most of them	45	43	40	23	14	39	44	45	31	37	20	39
About half of them	12	24	32	30	30	20	12	19	29	24	24	19
Only a few of them	3	12	8	29	39	13	4	9	25	27	34	14
None of them	1	1	3	7	14	3	1	1	5	5	16	3
Respondents	666	261	65	257	113	1362	571	295	210	166	128	1370
Nonrespondents	26	8	8	23	14	84	14	3	8	8	8	41



TABLE A-17  
 VOCATIONAL TRAINING PLANS OF FRIENDS, BY SEX AND EDUCATIONAL PLANS

Proportion of friends planning to attend vocational school	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
All of them	3	2	5	4	0	3	3	3	4	2	3	
Most of them	6	9	15	17	10	9	10	20	22	12	14	
About half of them	15	25	28	33	30	22	13	26	32	27	21	
Only a few of them	45	49	40	41	47	45	47	40	40	42	44	
None of them	31	15	12	5	13	21	27	10	2	17	18	
Respondents	629	245	65	247	105	1291	531	200	162	124	1287	
Nonrespondents	63	24	8	38	22	155	54	18	12	12	124	

TABLE A-18  
 PERCEIVED FRIENDS' ATTITUDES TOWARD VOCATIONAL EDUCATION  
 BY SEX AND EDUCATIONAL PLANS

Perceived Friends Attitude Toward Vocational Education	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
High	16	26	43	42	41	26	15	22	38	40	50	26
Medium	37	37	35	35	33	36	35	35	35	34	28	34
Low	47	37	22	23	26	38	50	43	27	26	22	40
Respondents	651	247	63	244	102	1307	549	273	193	157	116	1288
Nonrespondents	41	22	10	41	25	139	36	25	25	17	20	123

TABLE A-19  
EDUCATIONAL EXPECTATIONS OF FRIENDS FOR GROUP MEMBERS  
BY SEX AND EDUCATIONAL PLANS

Proportion of Friends Saying They Expect Group Members to get all of the Education They Can	Boys						Girls					
	College Grad.	Some College	Business Training	Vocational Training	High School	Total	College Grad.	Some College	Business Training	Vocational Training	High School	Total
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
All of them	32	23	29	16	26	27	35	23	23	22	20	27
Most of them	38	38	28	35	21	36	38	37	37	37	25	36
Half of them	17	19	23	23	20	19	13	30	21	24	18	18
A few of them	8	10	6	17	15	10	8	8	11	16	10	10
None of them	5	10	14	9	18	8	6	12	9	15	9	9
Respondents	650	256	65	257	102	1330	562	288	163	128	1345	
Nonrespondents	42	13	8	28	25	116	23	10	11	8	66	

APPENDIX B

QUESTIONS USED IN REPORT\*\*

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\*\*For the complete classroom questionnaire see reference No. 2.

9. Mark the blanks at the left of the phrases which best describe the education you think you will actually be able to get. (Check all that apply.)

- \_\_\_\_\_ (1) Quit high school and not go to any kind of school again
- \_\_\_\_\_ (2) Graduate from high school
- \_\_\_\_\_ (3) Attend a business or commercial school (not college level)
- \_\_\_\_\_ (4) Attend a technical or vocational school (not college level)
- \_\_\_\_\_ (5) Attend a junior college - take a business or commercial course
- \_\_\_\_\_ (6) Attend a junior college - take a vocational or technical course
- \_\_\_\_\_ (7) Attend a junior college - take a regular college course
- \_\_\_\_\_ (8) Attend a college or university
- \_\_\_\_\_ (9) Graduate from a college or university
- \_\_\_\_\_ (10) After graduating from college spend one or more years doing advanced study in a specialized field
- \_\_\_\_\_ (11) Other (what?) \_\_\_\_\_

10. How sure are you that you will actually get the highest level of education you marked in question 9?

- \_\_\_\_\_ (1) Very sure
- \_\_\_\_\_ (2) Fairly sure
- \_\_\_\_\_ (3) Not at all sure

15. How much of your school work are you interested in?

- \_\_\_\_\_ (1) All
- \_\_\_\_\_ (2) Most
- \_\_\_\_\_ (3) Some
- \_\_\_\_\_ (4) Little
- \_\_\_\_\_ (5) None

16. Circle a number to show how you feel about each of the statements below.

	(1)	(2)	(3)	
	Agree	Neither agree nor disagree	Disagree	
(a)	1	2	3	I like school very much.
(b)	1	2	3	Most of my teachers are very helpful.
(c)	1	2	3	I often find myself watching the clock because my classes are so boring.
(d)	1	2	3	Lunch time is the most enjoyable time of the day.



16. continued

- |     |   |   |   |   |
|-----|---|---|---|---|
| (e) | 1 | 2 | 3 | School is difficult for me.   |
| (f) | 1 | 2 | 3 | My teachers are the most helpful to the very good students.                                 |
| (g) | 1 | 2 | 3 | The most important thing one gets out of high school is the diploma.                        |
| (h) | 1 | 2 | 3 | In my free time I would rather read than go to a movie.                                     |
| (i) | 1 | 2 | 3 | In the evening I often find myself watching TV instead of doing my homework.                |
| (j) | 1 | 2 | 3 | Education is important in preparing for a job.  |
| (k) | 1 | 2 | 3 | High school seems to be little more than "serving time" until I can get out and go to work. |
| (l) | 1 | 2 | 3 | I appreciate the opportunity education give me to learn more and broaden myself.            |

17. On your last report card did you get mostly: (Mark only one)

- (1) A's
- (2) A's and B's
- (3) B's
- (4) B's and C's
- (5) C's
- (6) C's and D's
- (7) D's
- (8) D's and F's

18. In which of the following organized activities do you participate? Circle a number to show how active you are in each.

- |     | (1)<br>Don't<br>participate | (2)<br>Not very<br>active | (3)<br>Quite<br>active | (4)<br>Very<br>active |                            |
|-----|-----------------------------|---------------------------|------------------------|-----------------------|----------------------------|
| (a) | 1                           | 2                         | 3                      | 4                     | Athletics                  |
| (b) | 1                           | 2                         | 3                      | 4                     | Music                      |
| (c) | 1                           | 2                         | 3                      | 4                     | Dramatics                  |
| (d) | 1                           | 2                         | 3                      | 4                     | Debate                     |
| (e) | 1                           | 2                         | 3                      | 4                     | School paper<br>or annual  |
| (f) | 1                           | 2                         | 3                      | 4                     | Student<br>government      |
| (g) | 1                           | 2                         | 3                      | 4                     | FFA or FHA                 |
| (h) | 1                           | 2                         | 3                      | 4                     | Hobby clubs                |
| (i) | 1                           | 2                         | 3                      | 4                     | Pep club or<br>pep rallies |

18. continued

(j)	1	2	3	4	Church youth groups
(k)	1	2	3	4	Hi-Y or Tri-Hi-Y
(l)	1	2	3	4	Others _____
(m)	1	2	3	4	_____
(n)	1	2	3	4	_____
(o)	1	2	3	4	_____

20. Are there any activities you would like to take part in that you aren't now participating in? Mark all that apply.

- |                                  |                                    |
|----------------------------------|------------------------------------|
| _____ (1) Music                  | _____ (7) Church youth groups      |
| _____ (2) Athletics              | _____ (8) Hi-Y or Tri-Hi-Y         |
| _____ (3) Dramatics              | _____ (9) FFA or FHA               |
| _____ (4) Debate                 | _____ (10) Hobby club              |
| _____ (5) School paper or annual | _____ (11) Pep rallies or pep club |
| _____ (6) Student government     | _____ (12) None of these           |

21. On the following items compare yourself to the rest of your classmates. Circle a number to show how you think your ability to do the things listed compares to the ability of your classmates.

	(1) Very much below average	(2) Somewhat below average	(3) About average	(4) Somewhat above average	(5) Very much above average	
(a)	1	2	3	4	5	Read and understand textbooks and other material assigned by teachers.
(b)	1	2	3	4	5	Memorize and remember facts and figures.
(c)	1	2	3	4	5	Write term papers, book reviews and short reports.
(d)	1	2	3	4	5	Study and prepare for tests.
(e)	1	2	3	4	5	Use encyclopedias, dictionaries, and other types of references.

21. continued

- |     |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|
| (f) | 1 | 2 | 3 | 4 | 5 | Understand and use new materials presented in class such as: a theory in science, formula in math, the cause of a historical event. |
| (g) | 1 | 2 | 3 | 4 | 5 | Take good notes from lectures or out of class reading.  |
| (h) | 1 | 2 | 3 | 4 | 5 | Recite in class: give oral reports, participate in class discussion.  |
| (i) | 1 | 2 | 3 | 4 | 5 | Get along with most teachers.   |

22. On the scale below please circle the number which best represents the way you feel about yourself. EXAMPLES: I feel that I am slightly heavy, therefore, in the first sample (S-1) I circled the number "4" on the heavy side of the scale. In the next sample (S-2) I feel that I am very healthy; therefore, I circled the number "1" on the healthy side of the scale.

---

EXAMPLES:	Very	Slightly	Neutral	Slightly	Very	
S-1 light	1	2	3	4	5	heavy
S-2 healthy	1	2	3	4	5	unhealthy

---

	Very	Slightly	Neutral	Slightly	Very	
intellectual	1	2	3	4	5	not intellectual
fast	1	2	3	4	5	slow
successful	1	2	3	4	5	unsuccessful
sharp	1	2	3	4	5	dull
alert	1	2	3	4	5	not alert

47. What kind of work does your father (or stepfather) do for a living? What is his job called, what kind of business or industry does he work in, and what does he do? (For example: "Carpenter, works on a construction crew building new houses"; "Sales clerk, waits on customers in a department store"; "Owner and operator of a grocery store.")

---

50. In terms of income or wealth in my community, I think my family is:

- \_\_\_\_\_ (1) Considerably above average
- \_\_\_\_\_ (2) Somewhat above average
- \_\_\_\_\_ (3) Average
- \_\_\_\_\_ (4) Somewhat below average
- \_\_\_\_\_ (5) Considerably below average

51. Think for a minute about your family (father, mother, brothers and sisters). Some or maybe all of them have expressed certain attitudes concerning formal education (high school and college). When you look at the following statements, think of the members of your family and respond to the statements on the basis of your knowledge of the attitudes of those members. Mark only one answer for each statement.

	(1)	(2)	(3)	(4)	(5)	
	All of them	Most of them	About half of them	Only a few of them	None of them	
(c)	1	2	3	4	5	They expect the younger members of the family to get all the education they can.

52. What is the highest grade completed by your father?

- |           |              |      |           |         |           |
|-----------|--------------|------|-----------|---------|-----------|
| _____ (1) | Grade school | 1-7  | _____ (5) | College | 1-3       |
| _____ (2) | Grade school | 8    | _____ (6) | College | 4         |
| _____ (3) | High school  | 9-11 | _____ (7) | College | 5 or more |
| _____ (4) | High school  | 12   |           |         |           |

53. What is the highest grade completed by your mother?

- |           |              |      |           |         |           |
|-----------|--------------|------|-----------|---------|-----------|
| _____ (1) | Grade school | 1-7  | _____ (5) | College | 1-3       |
| _____ (2) | Grade School | 8    | _____ (6) | College | 12        |
| _____ (3) | High school  | 9-11 | _____ (7) | College | 5 or more |
| _____ (4) | High school  | 12   |           |         |           |

54. In which of the following would your parents be willing and able to help you financially? Mark all that apply.

- (1) Farming
- (2) College
- (3) Vocational schooling
- (4) Setting up a business of my own
- (5) None of the above

58. Did any of your close friends drop out of school before graduating?

- (1) Yes
- (2) No

59. If yes, how many? \_\_\_\_\_

60. Think for a minute about your close friends. Circle a number in front of each of the statements listed below to show how well you think it describes the feelings of your friends about formal education (high school and college). How many of your close friends feel this way?

	(1)	(2)	(3)	(4)	(5)	
	All of them	Most of them	About half of them	Only a few of them	None of them	

(f)	1	2	3	4	5	They expect the members of our group to get all the education they can.
-----	---	---	---	---	---	---

61. Think for a minute about your close friends. Think about the things they do in school. Mark the following statements according to how well you think they describe your group of friends. (Circle the appropriate number

	(1)	(2)	(3)	(4)	(5)	
	All of them	Most of them	About half of them	Only a few of them	None of them	

(g)	1	2	3	4	5	They are planning to take college training.
-----	---	---	---	---	---	---

(h)	1	2	3	4	5	They are planning to take Vocational Training.
-----	---	---	---	---	---	--



62. Please circle a number to indicate the extent to which each of the statements below reflects the attitudes or feelings of the students you know at your school. (Think of all the students you know, not just your close friends.) How many of the students, in your opinion, have the feelings expressed in each of the statements?

	(1)	(2)	(3)	(4)	(5)	
	All of them	Most of them	About half of them	Only a few of them	None of them	
(a)	1	2	3	4	5	The high school curriculum should be more directly related to specific jobs.
(b)	1	2	3	4	5	Every student should try to go to college. If he can't make it there he can always get an ordinary job.
(c)	1	2	3	4	5	There should be more emphasis on vocational and technical courses and less on college preparation.
(d)	1	2	3	4	5	Courses like welding and wood working have no place in today's high school.
(e)	1	2	3	4	5	In modern society the skilled craftsman is as important as the scientist or the professional.
(f)	1	2	3	4	5	Students enrolled in vocational or technical courses generally don't have the ability to master college preparatory courses.

62. continued

- |     |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|
| (g) | 1 | 2 | 3 | 4 | 5 | Shop courses are good preparation for the kind of work many students will be doing.   |
| (h) | 1 | 2 | 3 | 4 | 5 | Business courses like typing and shorthand are as important for girls as are college preparatory courses.                         |
| (i) | 1 | 2 | 3 | 4 | 5 | High school should do more to provide students with skills useful in jobs and should not worry so much about college preparation. |

APPENDIX C

INDEXING PROCEDURES

Several of the indexes used in this study were submitted to a Likert "Discriminative Power" analysis.

The procedure for conducting a Discriminative Power analysis is as follows:

1. Obtain a total score for the respondents contingent upon the answer categories they marked for the group of items.
2. Rank these respondents according to their total score, from low to high.
3. Divide the respondents into equal (or nearly equal) quartiles.
4. Then get a frequency distribution for each quartile according to the response categories marked for each item.
5. Calculate the mean response categories for both the first and fourth quartiles.
6. Subtract the mean of the fourth quartile from the mean of the first quartile. This value is the Discriminative Power. The higher the value, the more the item discriminates between individuals with high and low total scores, respectively.

The items which discriminate most highly between high and low scorers are retained in the index. With rare exceptions, only items which had a discriminative power of 1.0 or higher were retained in the indexes used in this study.

**EXAMPLE:**

Quartiles		Item Number 6			Total
		Response Categories			
		1	2	3	
Low	1	75	46	2	123
	2	36	84	24	144
	3	14	81	55	150
High	4	3	34	97	134
Total		128	245	178	551

EXAMPLE (continued)

CALCULATION

A. Formula

$$D.P. = \bar{X} \text{ 4th (high) quartile} \\ - \bar{X} \text{ 1st (low) quartile}$$

B. EXAMPLE

$$\bar{X} \text{ 1st (low) quartile} = \frac{1 (75) + 2 (46) + 3 (2)}{123} = 1.4$$

$$\bar{X} \text{ 4th (high) quartile} = \frac{1 (3) + 2 (34) + 3 (97)}{134} = 2.7$$

$$D. P. = 2.7 - 1.4 = 1.3$$

Consequently, this item discriminated highly between individuals with high and low total scores.

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This report compares students planning to take post-high school business education or other types of vocational education to students planning to attend or graduate from college and to students who plan to terminate their education with high school graduation. Data were drawn from the Educational and Occupational Aspirations Study which was conducted as a part of the Vocational-Technical Education Research and Development Project at Washington State University. The sample consisted of juniors and seniors in twelve randomly selected high schools in Washington State.

In general, students planning business or vocational training did not score as high on factors associated with high levels of educational expectations as did students planning to attend or graduate from college. On some factors they scored higher than students planning no education after high school; on other factors they scored much the same as those planning no education after high school.

Comparisons were made in terms of: (1) school experiences and attitudes toward school including grades, interest in school work, self-image of scholastic ability, courses taken, and extracurricular activities; (2) family background characteristics including father's occupation, parents' education, perceived family income, and willingness of parents to finance education, and encouragement from parents; (3) peer group characteristics including number of friends who dropped out of school, proportion of friends planning to attend college, and encouragement from friends.

A majority of students planning business or vocational training planned to enter occupations for which their training will prepare them. However, a significant minority showed an incongruity between educational plans and occupational plans.

16. RETRIEVAL TERMS (Continue on reverse)		
Vocational Education Business Education Educational Expectations		High School Students  Sociology of Education

17. IDENTIFIERS	Vocational Education Act of 1963
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Figure 3. ERIC Document Resume