A STUDY TO DETERNINE THE PROBABILITY OF RELATIONSHIPS BETWEEN THE
EDUCATIONAL AND VOCATIONAL GOALS OF TENTH AND TWELFTH GRADE
BOYS AND GIRLS IN OAKLAND AND MACOMB COUNTY PUBLIC HIGH SCHOOLS AND THE EXPRESSED EDUCATIONAL AND VOCATIONAL GOALS OF THE PARENTS FOR THESE CHILDREN

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#### Abstract

The purpose of this study is to determine the probability of relationships between the educational and vocational goals of tenth and twelfth grade boys and girls in Oakland and Macomb County public high schools and the expressed educational and vocational goals of the parents for these children.

This study presents data which reveal the statistically significant relationships in the following hypotheses: 1. There is a probability of a relationship between the certainty of going to college as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents' educational aspiration level for their children. 2. There is a probability of a relationship between the vocational goals as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents' vocational aspiration level for them. 3. There is a probability of a relationship between the educational attaiment level of the parents of tenth and twelfth grade $s$ tudents in Oakland and Macomb County public high schools and the educational goals they hold for their children. 4. There is a probability of a relationship between the educational attainment level of the parents of tenth and twelfth grade students in Oakland and Macomb County public high schools and


the certainty of college attendance as perceived by their children.
5. There is a probability of a relationship between the certainty of college attendance as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and the educational attainment level required for the vocation of their parents.
6. There is a probability of a relationship between the greater number of children in a family and the parents' educational aspiration for a post-secondary education for their tenth and twelfth grade boys and girls attending Oakland and Macomb County public high schools.
7. There is a probability of a relationship between the greater number of children in a family and the certainty of college education as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools.

Some of the findings are:

1. The percentage of children very certain to attend college is significantly higher in families where parents aspire to more than four years of college for their children than in families where the parents aspire to only a high school education for their children.
2. The percentage of sophomores and seniors with high vocational goals is greater in families in which the parents have high vocational goals for their children than in families in which the parents have low vocational goals for their children.
3. There is a greater percentage of parents with a college
education who have greater than high school educational goals for their tenth and twelfth grade boys and girls than the percentage of parents with less than a high school education.
4. The percentage of tenth and twelfth grade students certain to attend college is higher in families in which the parents have a high educational attainment level than in families in which the parents' educational attainment level is low.
5. The percentage of tenth and twelfth graders certain to attend college is higher in families in which the parent's vocation requires a higher educational attainment level than in families where the parent's vocation requires a lower educational attainment level.

These findings may be used by those people who are interested in developing, at the secondary and post-secondary levels, educational programs which are geared to meet the interests and needs of the people living in the area served by the school.

The writer wishes to acknowledge the interest and assistance of a number of persons without whose aid this study would not have been possible.

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During the past year, Michigan State University was given property and funds to establish an institution of higher learning in Oakland County. This presents a challenge and an opportunity to develop an educational institution in terms of the real needs of the people living in the area to be served by the institution. This study is made with the belief that it will make a contribution to the planning of the new institution and that it will also provide data to local schools wishing to develop a more meaningful educational program. It is fortunate for the writer that the data gathered by Michigan State University officials were made available. The fact that a questionnaire was given to all tenth and twelfth grade boys and girls and their parents and that approximately 77 per cent of the students and approximately 50 per cent of the parents completed the questionnaires makes it possible to use 6,882 matched pairs of questionnaires in this study. This size of a sample would have been difficult, if not impossible, for the writer to obtain.

## I. STATEMENT OF THE PROBLEM

The purpose of this study is to determine the probability of relationships between the educational and vocational goals of
tenth and twelfth grade boys and girls in Oakland and Macomb County public hish schools and the expressed educational and vocational goals of the parents for these children.
I. DEFINITION OF TERMS AS USED IN THE STUDY

Aspiration level. The plateau of future achievement, either vocational or educational, which the individual being considered has set for a desired goal.

Occupational goal. The level of achievement which the individual under consideration has selected as the principal business of earning a living either for himself or for someone else; that is, the parent's idea of an occupational goal would be in reference to his child's earning a living; the child's idea would be in regard to his own way of earning a living.

Vocational aspirations. Synonymous with and used interchangeably with occupational goal and occupational aspirations. Occupational aspirations. Synonymous with and used interchangeably with vocational aspirations and occupational goals.

Vocational goals. Synonymous with and used interchangeably with occupational goals.

Vocational preference. The occupation or profession held in higher estimation over all others considered. This implies that there may be more than one seriously contemplated or desired but that one line of work is preferred.

Educational aspirations. The level of accomplishment set as a goal to be arrived at in the future, either through attendance at an institution of learning or through an individually activated educational program.

Educational attainment. The level or degree of accomplishment acquired through mental processes at a recognized institution of learning (either public, parochial, or private.)

Higher education. The acquisition of knowledge, skill, or information received by instruction or study in an institution of learning of collegiate or more advanced grade.

Higher learning. Synonymous with higher education and used interchangeably.

Counseling. A learning process, a person-to-person relationship designed to help the counselee or client better meet problems or make choices and plans essential to his satisfactory progress and adjustment.

Institution of higher learning. Any organization or institution providing a curriculum of instruction beyond that of high school; that is, a college or university, public or private.

Relationship. The probability of one element increasing or decreasing in proportion to the second element but the definition does not imply that this relationship is quantitative.
III. DELIMITATIONS

The study is limited to the counties of Oakland and Macomb in the State of Michigan. This study will include children in the
tenth and twelfth grades in all high schools in Oakland and Macomb Counties and their parents. The fact that the writer did not participate in the development of the questionnaires poses some limitations on the study. A number of questions might have been included in the questionnaire which would give even more depth to the study. For example, questions designed to gather data on the social, economic, and ethnic background of the families could provide a sociological setting which might enhance the value and the pertinence of the implications of the findings of this research effort. Also, a study of the correlations between certain sociological factors and the educational and vocational aspirations of the children and their parents might have significant implications for those using the results of this study. It should also be pointed out that the educational and vocational goals expressed by the children and thair parents are a reflection of the thinking of those individuals at the time the survey was made. It is possible that a survey taken at another time might disclose different information.
IV. ASSUMPTIONS

Basic assumptions are essential in research efforts. The following assumptions serve as a basis for weighing the merits of several proposals to be made in this report.

1. Parents have asplrations concerning educational levels to be attained by their children and will report these aspirations.
2. Parents have aspirations concerning the vocational goals to be attained by their children and will report these aspirations.
3. Tenth and twelfth grade children have aspirations concerning educational levels to be attained and will report these aspirations.
4. Tenth and twelfth grade children have aspirations concerning vocational levels to be attained and will report these aspirations.

## V. HYPOTHESES

This study in a later chapter presents data which reveal the statistically significant relationships in the following hypotheses.

1. There is a probability of a relationship between the certainty of going to college as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents' educational aspiration level for their children.
2. There is a probability of a relationship between the vocational goals as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents' vocational aspiration level for them.
3. There is a probability of a relationship between the educational attainment level of the parents of tenth and twelfth
grade students in Oakland and Macomb County public high schools and the educational goals they hold for their children.
4. There is a probability of a relationship between the educational attaiment level of the parents of tenth and twelfth grade students in Oakland and Macomb County public high schools and the certainty of college attendance as perceived by their children.
5. There is a probability of a relationship between the certainty of college attendance as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and the educational attainment level required for the vocation of their parents.
6. There is a probability of a relationship between the greater number of children in a family and the parents' educational aspiration for a post-secondary education for their tenth and twelfth grade boys and girls attending Oakland and Macomb County public high schools.
7. There is a probability of a relationship between the greater number of children in a family and the certainty of college education as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools.
VI. NEED FOR STUDY

If educators are to help people in their efforts to develop
educational programs to meet their needs in our changing society,
it is important that we know the current educational and vocational goals of the consumers, the parents, and their children. Guesses are not good enough. Only by knowing the particular goals of the particular people with whom we are working can we plan and work effectively toward more meaningful programs of education at all levels. Thus, by determining the educational and vocational aspirations of parents and their children in Oakland and Macomb Counties, the educational leaders will have the important advantage of knowing where the people really are in their educational thinking and can plan and work accordingly.

Certain trends in our society, such as universal education, make it more and more important that parents and children carefully plan the educational future of high school graduates.

Williams makes this observation:
Universal public education has decreased the role of the family in training the child; changes in occupational and technological requirements have emphasized formal training; changes in the economic structure have increased the importance of education as a means of social mobility. Consequently, we find increased pressure to graduate all students from high school, to admit all high school graduates into college, and to permit college 1 students to continue in college as long as they wish.

Conant treats the subject of high school education and higher education from a practical point of view when he discusses public education for all or for only a few. He is concerned with the social attitudes involved as well as with the vocational implications.

[^0]The critical period in a young man's life as far as the relation of his education to his career is concerned lies between the ages of sixteen and twenty-one. If he drops out of high school, or finishes high school and does not go on to a university, many roads are barred; for example, only with the greatest difficulty can he become a doctor, lawyer, or engineer. On the other hand, if he graduates from a four-year liberal arts college, in many cases he will consider that his "higher education" was thrown away if he takes up an occupation largely recruited from noncollege men. Assuming for the moment that all barriers of economics and geography and national orlgins were swept aside by a magic wand, how would a wise educator proceed to plan the education of thousands of young men in any one of the forty-eight different states? Is everyone to go to college? If so, what kind of college? If not, on what basis are some to be denied "the privileges of a higher education"?

To my mind the crux of the problem is to be found in such phrases as "the privileges of a higher education." If we could eliminate the word "higher" we could at least make a start toward thinking more clearly about the relation of our colleges to the structure of the American society. For the adjective "higher" implies at once that those who do not go to a university or a four-year college are forever on a lower plane. And any discerning teacher in our secondary schools will testify that the social implications of "going to college" weigh quite as heavily with parents and children as does proven aptitude for college work. Furthermore, any placement officer of a college knows full well tnat it is a rare holder of a bachelor's degree who is eager to take up as his lifework a trade or vocation for whigh he might have been trained in a technical hign school. ${ }^{2}$

Along with the far reaching changes in the industrial and
technological scene in our country have come changes in the views of society toward education. No longer is education considered a
luxury to be enjoyed by a privileged few. Instead, education is
viewed as being essential to the social and economic success of the

[^1]individual as well as the nation as a whole. As this change came about the content and scope of our educational needs assumed new dimensions. Conant underscores this need for education beyond high school when he says,

> As public secondary education expanded in the last decades of the nineteenth century and in the first half of the twentieth, the colleges and universities likewise expanded. Not only were the applicants more numerous, they were much more heterogeneous as to backgrounds and ambitions. Furthermore, the political, social, and economic development of the United States vastiy altered the way in which the public regarded education. As the years went by, it became more and more evident that in our complex industrialized society mere ability to read and write, added to native wit, was not enough. With the passing of the frontier, the pioneer spirit was turned away from new lands toward new industries, And to manage modern industry requires more than a high school education -- at least for all but the very exceptional man.
> With the increasing. industrialization went increasing urbanization, a higher standard of living, and a vast number of services available for city and town dwellers, more and more new mechanical and electrical devices distributed widely among the population --automobiles, electric refrigerators, and radios, to mention the most obvious examples. All this industrial expansion required more and more men and women with a larger and different educational experience than would have been necessary fifty years earlier to run a farm, a store, or even a bank.

Bottrell, too, is aware of the constantly moving pattern of American culture which is effecting great changes on the occupational scene. He sees it as a problem pertaining not only to students in high school but to adults who, having graduated from high school, find that more education is a necessity for adjustment to the life of the times. He stresses the need for education beyond high school.

[^2]The "stream of culture," especially the American current, is moving ever more rapidly; the general pattern is changing. For example, in the important area of occupations, some occupations are declining in importance, some are increasing in importance, and new occupations never before thought of are appearing. The lesson for education is clear. Formal education which terminates at the end of high school or college soon becomes inadequate for successful adjustment to culture and technology.

Today's trends and changing educational needs place heavy responsibilities on school administrators and others in positions of educational leadership. No longer can they sit back and say that people resist change in defense of their educational lethargy. As Spicer puts it.

It has become something of a commonplace to say, "People resist change," but a generalization that has many more facts to support it is the opposite: "People accept change." The notion that people tend to resist rather than accept change may be a special idea of our era, formulated by those who are especially conscious of cultural differences or by those who are engaged in trying to bring about change. To the latter, certainly, the fact of resistance is more striking than acceptance. The truth is, however, that people everywhere constantly change their ways. $5^{\circ}$

An insight into the educational and vocational aspirations of parents and their children as reported in this study will provide clues for administrators and others in learning to cope with demands and opportunities included in building educational programs at all levels to meet the needs of the individual and his changing society.

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Harold R. Bottrell, editor, Introduction to Education, Harrisburg, Pennsylvania: The Stackpole Company, 1955, p. 84.
$5_{\text {Edward H. Spicer, editor, Human Problems in Technological }}$ Change, New York: Russell Sage Foundation, 1952, pp. 17-18.

## REVIEN OF RELATED RESEARCH

A review of the literature reveals several related studies which have examined various facets of the problem of this thesis. However, a study concerned with the same problem has not been made.

Samson and Stefflre ${ }^{6}$ describe a study which concerns itself primarily with the relation between the student's first choice of vocational objective and his father's (or the family wage earner's) vocation. They concluded from their study that children, in selecting their vocational objectives, are influenced by their parents' occupations to an extent that they are related regardless of what classification the parents' job falls into. The children are not independent in making their choice. In the case of parents working at a professional or semi-professional level, this lack of independence is largely due to their overselection of professional objectives and their under-selection of "manual" objectives. Where the parents work at jobs classified as service or agriculture, the children tend to over-select service and agriculture objectives and under-select professional objectives. Children whose parents' occupations were unclassifiable
${ }^{6}$ Ruth Samson and Buford Stefflle, "Like Father... Like Son?" The Personnel and Guidance Journal, October 1952, pp. 37-38.
according to the counseling services again follow the same general pattern, this time over-selecting service and agriculture and clerical and sales objectives. The relationship between the parents' occupations and the children's objectives holds true regardless of parents' occupation because the child does not select his objectives independently.

Related to this study are several in the field. Becknan? found that the occupation of the father is associated with an individual's outlook on life and his educational, recreational, and rocational opportunities. Hollingshead ${ }^{8}$ found that families of most lower class adolescents are a hindrance to the child's efforts to find work. These adolescents find it almost impossible to do better than follow occupations like their fathers'.

In a Fortune ${ }^{9}$ survey, the children of prosperous parents anticipated continuing to be prosperous and the children of the poor expected to continue in the salary range of their fathers.

In a counseling study Ryden ${ }^{10}$ found that 73 per cent of the parents seriously discussed job possibilities with their children when they were high school sophomores and although few had already chosen the job for the child, about 76 per cent of

[^3]them expected to have an active influence in the matter of choosing an occupation.

Peters ${ }^{1 l}$ learned when asking students to report their first and second choices of the most important factors influencing vocational choices," that parents, other relatives, and friends ranked first for both choices. His conclusions were that the family is the major influencing factor.

Nelson ${ }^{12}$ found that the children of farmers and laborers tended not to follow the father's occupation while children of physicians, teachers, and journalists tended to follow the father's occupation. According to Handley ${ }^{13}$ adolescents in differing socio-economic groups tend to choose occupational objectives at the same level as, or higher than, their parents' occupations.

Porter ${ }^{14}$ made a study of 100 senior boys two weeks before graduation from two suburban high schools. The boys were asked to list their vocational goal and the plan for achieving this goal. This was done to provide a basis for estimating the
${ }^{11}$ E. F. Peters, "Factors Which Contribute to Youth's Vocational Choice," Journal of Applied Psychology, XXV (1941). pp. 428-30.

12 E. Nelson, "Father's Occupations and Student Vocational Choices," School and Society. (1939), pp. 572-76.
${ }^{13}$ Isabel Handley, "A Study of Factors Related to Occupational Objectives," unpublished Master's thesis on file in library at Occidental College, 1949.

14J. Richard Porter, "Predicting Vocational Plans of High School Senior Boys," The Personnel and Guidance Journal. December 1954. p. 216.
consistency of the questionnaire. Ninety-one per cent gave consistent statements. Six months later a follow-up study of 92 of the 100 boys was made. It was very significant to note that 79 of the boys were following the plan they proposed or one of a similar prestige level.

An investigation of the relationship between the prestige level of vocational plans and the fathers' occupations showed no trend in this group to choose occupations at a higher prestige level than their fathers. The results showed 53 per cent of the boys planned occupations consistent with the prestige level of their fathers' occupations, 22 per cent made plans at a higher prestige level, and 25 per cent made plans at a lower prestige level than their fathers.

Slocum's ${ }^{15}$ study of noccupational and Educational Plans of High School Seniors from Farm and Non-farm Homes," is one closely related to this study. In 1954 he took a sample of 1,981 high school seniors in the State of Washington. His findings in the area of occupational planning include:

Occupational aspirations were generally high in relation to current employment possibilities.

Most seniors expressed attitudes toward work which would be considered wholesome and consistent with traditional American values.

Occupational and educational plans of farm and non-farm girls were quite similar.

Roughly two-thirds of the seniors had narrowed their occupational preferences to a single occupational field.

Many of those who expressed definite preferences were rather uncertain about the suitability of their choices.

[^4]Experience gained in actual employment was acknowledged by many as being of paramount importance in crystallizing occupational preferences.

In the area of educational planning the author pointed out.

The socio-economic level of the family evidently has considerable influence on students' evaluation of the desirability of higher education.

There was a somewhat greater tendency for seniors from urban areas than for those from rural areas to plan on immediate college entrance; the proportions were 41 per cent and 31 per cent respectively.

Nearly eight out of each ten of those who expected to go to college the following year indicated that the most important reason for such plans was occupational preparation.

Nearly all seniors considered themselves to be average students or above.

Kahl made a study which indicated that intelligence and family status are important factors in predicting the vocational and educational aspirations of high school boys. However, he found that boys of high intelligence who come from lower middle class homes varied considerably from the usual pattern. He selected 24 boys from this "working class" group; half planned to go to college and half of them did not. He says,

The interviews disclosed that although there was a general way of life which identified the common man class, some members were content with that way of life while others were not. Parents who were discontented tended to train their sons from the earliest years of gramar school to take school seriously and use education as the means to climb into the middle class. Only sons who internalized such values were sufficiently motivated to overcome the obstacles which faced the common boys in school; only they
saw a reason for good school performance and college
aspirations.
Another pertinent study was made by Sewell, Haller and Strauss. Their aim was to determine if levels of educational and occupational aspirations of boys and girls are related to the social status of their families when the effects of intelligence are controlled. If the student indicated he wanted to attend a four-year college or its equivalent, his educational aspiration level was rated high; and if he did not plan to enter college, it was declared low. If he indicated as a vocation that of a public school teacher or one of a higher prestige level, his vocational aspiration was rated high, while if he selected an occupation lower in prestige than a public school teacher his vocational aspiration was called low. The North-Hatt ${ }^{17}$ occupational prestige values were used to determine these factors. Their conclusions included these observations:

It must be concluded that the apparent effects of social status on levels of educational and occupational aspiration are not simply due to the common relationship of these variables to intelligence, although intelligence is related to both types of aspirations. This conclusion is specific to persons from non-farm families.

Because the sample was drawn randonly from a broad population of high school seniors (the entire State of Wisconsin), and because the effects of measured intelligence and sex were controlled, the present tests lend support to the sociological clain that values specific to different status positions are important influences on levels of educational
$16_{\text {Joseph A. Kahl, "Educational Occupational Aspirations of }}$ 'Common Man' Boys," Harvard Educational Review, Volume 23, No. 3. Sumer, 1953, pp. 186-203.

17National Opinion Research Center, "Jobs and Occupations: A Popular Evaluation," Opinion News, 9 (September, 1947), pp. 3-13.
and occupational aspiration. This does not deny the importance of intelligence to educational and occupational aspirations, but suggests that status makes an independent contribution to these aspirations. ${ }^{18}$

In 1941 Hollingshead ${ }^{19}$ made a study of the impact of social classes on the youth of a typical midwestern city he termed "Elmtown." Five hundred thirty-five families were placed in social classes from I to $V$ by local residents who served as raters. Class I is the highest social class and V the lowest. A study of the vocational aspirations of the boys and girls in social classes II to $V$ reveals that Class II, the upper middle class, showed decided job preferences in profession and business. None showed an interest in service trades or miscellaneous fields. Only three per cent were undecided. The surprising thing is the low percentage of Classes IV and $V$, the working class and the other-side-of-the-tracks class respectively, who had no aspirations to enter a business or a profession. Apparently these children have accepted a realistic viewpoint and resigned themselves to what they feel is possible for them to achieve. In Class IV, 51 per cent ained at clerical work, crafts, or service trades. In Class V the aimlessness of the group's life pattern was probably reflected in the 41 per cent who were undecided as to a vocational objective. The next highest group, 25 per cent, aimed at service

18
William H. Sewell, Archie 0. Haller, and Murray A. Strauss. "Social Status and Educational and Occupational Aspiration," American Sociological Review, Voluae 22, No. 1, February 1957. pp. 72-73.
${ }^{19}$ A. B. Hollingshead, Elmtown's Youth, New York: John Wiley and Sons, Inc., 1949, p. 286.
trades. Generally, this research probably indicates that "These two lower classes are either forced to accept or are willing to accept the vocational pattern that the class system holds out to them. ${ }^{20}$

Singer and Steffire made a study, "The Relationship of Job Values and Desires to Vocational Aspirations of Adolescents." The sample was composed of approximately 450 high school senior boys and girls in the Los Angeles City Schools. Those students who scored in the lower quarter on the Level of Interest section of the California Occupational Interest Inventory were compared to students who scored in the upper quarter on the same section of the test. The students used for the study participated in an intensive vocational guidance program during the school year 1952-53. The authors concluded,

Males who demonstrate high level of vocational aspirations are relatively more concerned with job values and desires that involve "self-expression." On the other hand, males who demonstrate low vocational aspiration are relatively more concerned with the job value of "independence." For adolescent females there appears to be no significant relationship between aspiration level and job values. For the combined group of males and females, desires for "leadership" and "self-expressiton" are positively related to high vocational aspiration.

Haller and Sewell's study, "Farm Residence and Levels
of Educational and Occupational Aspirationn ${ }^{22}$ is a test of

[^5]Lipset's ${ }^{23}$ theory that because rural people have fewer educational opportunities and advantages as well as fewer occupational choices, the level of educational and vocational aspirations of farm youth is lower than those of urban youth. A sample was made of approximately 5,000 high school seniors not planning to enter farming as an occupation. Boys and girls were tested separately. The study found that "residential differences in educational and occupational aspiration do not explain differences in the eventual occupation of girls." Moreover, among boys, occupational achievement cannot be predicted from information on residence. Boys who live on farms desire to enter high-level jobs with the same frequency as do males who do not. However, boys from the farm have less interest in a college education than do others. This indicates that farm boys are equally aware of the occupational alternatives but not equally aware of their educational requirements.

This review of related studies reveals a growing awareness of the need for research on topics related to the educational and vocational aspiration levels of parents and their children. These research results are essential to effective counseling and guidance programs. This information is also important to those involved in developing adequate school programs at all levels. Further, an analysis of the research efforts in this field indicates the importance of specific research in specific localities if the results are to be best utilized, despite the fact that certain results seem

[^6]to have widespread application. Thus, research on this particular problem centered in Oakland and Macomb Counties appears to be well justified.

## CHAPTER III

THE SOUKCE OF THE DATA AND METHODOLOGY USED

## I. SOURCE OF THE LATA

Michiean State University plans to open a branch in Oakland County in the fall of 1958. To plan for the educational program to be offered at the branch, the University officials decided it would be essential to gather information from the high school students and their parents in Oakland and Macomb Counties.

After study and discussion by the educational leaders in the two counties and staff members of the University, it was decided to collect the data necessary for effective planning by distributing questionnaires.

In discussing the use of the questionnaire, Good, Barr, and Scates suggest several considerations which enter into the making of a questionnaire from the standpoint of the study being made.

First, one must have a clear purpose, with definite limi tations, so that he does not ask for everything in "blunder-buss" fashion; he must see how each item of information fits into a pattern of essential knowledge about his problem.

Second, each question must be absolutely clear - not only to the maker but to the receiver. It is surprising how many questionnaires are sent out that are scarcely interpretable.

Third, one should seek responses of such character that they can be summarized in some form. This does not necessarily mean that the responses must be quantitative, or
yes-no, or check marks, although these are the easiest to sumarize. It means that the step of sumarization is one which should be considered when the questions are being prepared.

Fourth, one will refrain from asking questions of opinion unless he is certain that opinion is what he is seeking, and that it will be worth getting.

Fifth, one will consider the desirability of pre-coding his questionnaire. This is frequently done when the results are to be punched on tabulating machine cards for summarization. 24

Four questionnaires were developed: (1) for students in grades 10 and 12, (2) for parents of tenth and twelfth grade students. (3) for parents of children in grade 2, and (4) for all certificated personnel in school districts in Oakland and Macomb Counties.

The items for each of the questionnaires were taken from a list of items subnitted by local superintendents of schools, elementary and secondary school principals in the two counties, and from items submitted by Michigan State University staff members.

The preliminary questionnaires were developed from these items by a committee composed of the Oakland and Macomb County Superintendents of Schools, and the Superintendents of Schools of Pontiac and Warren, Michigan, a Michigan State University staff specialist in comunity college work, a specialist in evaluation and test construction; a specialist in public information services,

[^7]and three persons from the Department of Administrative and Educational Services, all the latter from Michigan State University. The questionnaires were reviewed and modified by the Oakland and Macomb County association of superintendents, secondary school principals, and elementary school principals. These refined questionnaires were pro-tested with parents and interested citizens at a P.T.A. meeting in the Washington School, Romeo, Michigan. Ninety-two citizens and parents participated in this particular pre-testing.

The student questionnaires were pre-tested by 35 and 27 respectively students in grades 10 and 12 at Pontiac High School.

Parten stresses the importance of pre-testing by saying:
Before deciding definitely upon given procedures, the surveyor should pretest every plan. He should not assume that his own reaction or that of his colleagues is "typical" of the response of the man on the street or the average housewife. The janitor, the delivery man, and the maid are usually better samples of the "average person" than are the white-collar workers associated with surveys. But even service employees like the above may not react the same as would strangers to whom the surveyor has no special entree. So, before finally adopting a technique, the surveyor should try to test it in a situation comparable to that where it will eventually be used. While the various steps may be tested individually and improved upon during the preliminary planning stage, the plans for the different operations should be combined into a unified plan and given a complete test before a large-scale survey is undertaken. This final trial, often referred to as the "pilot study," "test-tube survey," or "trial survey," is of inestimable value if properly designed and carried out. 25

Final refinement and revision before printing were completed by the Michigan State University study team.

25mildred B. Parten, Surveys, Polls and Samples: Practical Procedures, New York: Harper and Brothers, 1950, p. 56.

Table 1 shows that in Oakland County public schools, 12.511 questionnaires were distributed to tenth and twelfth grade students and their parents. Of this number 9.661 or 77.22 per cent responded. Five thousand four hundred thirty-six or 43.45 per cent of Oakland County parents of tenth and twelfth grade public high school students responded. Thus, 23.77 per cent more students than parents responded.

In Macomb County public high schools, questionnaires were distributed to 5,876 tenth and twelfth grade students and their parents. Four thousand five hundred forty-one or 77.28 per cent of the students responded, while 3.101 or 52.77 per cent of the parents responded.

It is interesting to note that the per cent of student responses in Oakland (77.22) and Macomb (77.28) counties was nearly identical.

There were 18,387 matched pairs of questionnaires distributed to tenth and twelfth grade public school students and their parents. Thus, there was a total of 36,776 questionnaires sent out. Of these, 22,739 were returned. Therefore, 61.83 per cent of the total number distributed responded. Of the 22,739 returned questionnaires, there were 6,882 matched pairs of questionnaires. This is 37.4 per cent of the total distributed and 100 per cent of the total matched pairs. This sample also represents 13.764 or 60.5 per cent of the 22,739 questionnaires returned.

TAELE 1
SUMPARY OF FESPONSES TO QUESTIONNAIRE IN OAKLAND AND MACOMB COUNTIES

| County | Tenth and twelfth grade student |  |  | Parents of tenth and twelfth grade students |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number queried | Number responding | $\begin{aligned} & \text { Per } \\ & \text { cent } \end{aligned}$ | Number queried | Number responding | Per cent |
| Oakland | 12,511 | 9,661 | 77.22 | 12,511 | 5,436 | 43.45 |
| Macomb | 5,876 | 4.541 | 77.28 | 5.876 | 3.101 | 52.77 |

## II. THE NETHODOLOGY USED IN THIS STUDY

Data are inspected for pertinence. When it was established by inspection that these data collected for the Michigan State University Study did have relevance for this study, the task of reorganizing these data for this study was begun.

Data are sorted. Since the scope of the Michigan State University Study is so broad, it was decided for the purpose of this study, to use only part of the data collected. For this study it seemed best to use information concerning tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents. It was further decided to use the tenth and twelfth grade students and their parents in both counties as one population.

Data are classified, tabulated, and punched using IBM
machines. First, the data were classified in four groups: (1) tenth grade boys and girls, (2) twelfth grade boys and girls. (3) parents of tenth grade boys and girls, and (4) parents of twelfth grade boys and girls. Later, the four groups were reclassified in several ways, such as tenth grade boys and fathers, tenth grade boys and mothers, tenth grade girls and fathers, and tenth grade girls and mothers. Similar groupings were made for twelfth grade students and their parents. The data were coded and the necessary information placed on the IBM cards.

Matching samples are drawn. There were 6,882 matched samples of tenth and twelfth grade students and their parents drawn from the complete returns. This was accomplished by using the IBM sorter. As previously mentioned, these matched samples were used in various combinations.

The hypothesis will be tested. Each of the hypotheses was tested after the following model:

Step 1. Statement of the hypothesis
Step 2. Statement of conditions which must exist if the hypothesis is valid.
a. Any differences among elements in the hypothesis must be attributed to factors other than chance.
b. There must also be an apparent relationship between the extreme elements of the hypothesis.
c. These extremes must differ significantly
from chance.
Step 3. Test of conditions
a. Chi-square test is used to test the differences among the elements of the hypothesis. The formula for chi-square $\left(X^{2}\right)$ is stated as follows:
in which

$$
x^{2}=\Sigma\left[\frac{\left(f_{0}-f_{e}\right)^{2}}{f_{e}}\right]
$$

$f_{0}=$ frequency of occurrence of observed or experimentally determined facts;
$f_{e}=$ expected frequency of occurrence on some hypothesis.

The differences between observed and expected frequencies are squared and divided by the expected number in each case, and the sum of these quotients is $\mathrm{X}^{2}$. The more closely the observed results approximate to the expected, the smaller the chi-square and the closer the agreement between observed data and the hypothesis being tested. Contrariwise, the larger the chi-square the greater the probability of a real divergence of experimentally observed from expected results. ${ }^{26}$

In speaking of this test Lewis says,
The chi-square test represents a useful method of comparing experimentally obtained results with those to be expected theoretically on some hypothesis.

The printed table of $\mathrm{X}^{2}$ in Lindquist's ${ }^{28}$ book will be used
26
Henry E. Garrett, Statistics in Psychology and Education, Fourth edition, New York: Longmans, Green and Company, 1953, p. 254.

27D. Lewis, Quantitative Methods in Psychology, Ann Arbor: Edwards Brothers, 1948, chapter 8.
${ }^{28}$ E. F. Iindquist, Statistical Analysis in Educational Research, New York: Houghton Mifflin Company, 1940, p. 42.
to convert the results to percentages showing the relative statistical significance of the difference.
b. Apparent differences among the extremes in the hypothesis are determined by inspection of real differences among the percentages. Inspection as a method of testing seems valid in this case as approximately 7,000 matched samples were used and there was over a 60 per cent return of the questionnaires.

Step 4. Upon testing the conditions, one or more conclusions followed directly from the data. Tinese conclusions are given in the form of summary statements which serve to qualify the original statements of the hypothesis.

## III. SUMMARY

The data for this study were drawn from the results of questionnaires developed, tested, and modified by staff members of Michigan State University and educators in Oakland and Macomb Counties. These questionnaires were distributed to all Oakland and Macomb County high schools. Second, tenth, and twelfth grade students in all public high school districts as well as in private schools and their parents were given questionnaires. For the purpose of this study, only the information on questionnaires returned by tenth and twelfth grade students in Oakland and Macomb County public hioh schools and parents was used. The
information was coded for IBM machines which were used to handle the data.

The methodology used included the testing of the hypothesis by a model which includes four parts: (1) the statement of the hypothesis, (2) the statement of conditions which must exist if the hypothesis is valid, (3) a test of these conditions, and (4) conclusions. The data used were taken from 6,882 matched samples of questionnaires returned by tenth and twelfth grade students in Oakland and Mscomb County public high schools and their parents.

PRESENTATION OF DATA AND TESTING OF HYPOTHESES

## I. INTRODUCTION

The data used to test the seven hypotheses used in this study are presented in this chapter. As mentioned previously, each hypothesis is listed after the following model: (1) the statement of the hypothesis, (2) the statement of conditions which must exist if the hypothesis is valid, (3) the test of conditions, and (4) conclusions. The chi-square test is used to test the data on all tables. The purpose is to test the differences among the elements of the hypothesis.
II. PRESENTATION OF DATA AND TESTING OF HYPOTHESES

The findings with respect to the probability of a relationshig between the certainty of going to college as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents' educational aspiration level for their children. If the first hypothesis is valid, that is, if there is a positive relationship between the parents' educational aspiration level and the certainty of college attendance as perceived by their children, the following conditions must prevail: (1) the higher the educational aspiration level of parents for their children, the
greater the certainty of college attendance as seen by their children; (2) the lower the educational aspiration level of parents for their children, the less certainty of college attendance as seen by their children.

In testing the validity of the conditions, we must recognize that if the first condition is valid, then the percentage of children very certain to attend college is significantly higher in families where parents aspire to more than four years of college for their children than in families where the parents aspire to only a high school education for their children. If the second condition is valid, then the percentage of children having no intention of attending college is significantly higher in families in which parents aspire to only a high school education for their children than in families in which the parents aspire to more than four years of college for their children.

Table 2 shows that in families in which the students are very certain of attending college, 67 per cent of the parents aspire to more than four years of college for their children. Only three per cent of the parents in these same families aspire to a high school education for their sons and daughters. In the families in which the students have no intention of going to college, only seven per cent of their parents aspire to more than four years of college for them, while 29 per cent of the parents aspire to only a high school education for their children.

Table 3 shows that in families where the twelfth grade boys are very certain of college attendance, 57 per cent of their parents
TABLE 2

| The degree of students' certainty of college attendance | The highest educational level to which the parents of these students aspire for their children |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High school |  | Beyond high school |  | College |  | Beyond college |  | Total number |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Very certain | 62 | 3 | 282 | 16 | 1309 | 46 | 368 | 67 | 2021 | 29 |
| Fairly certain | 201 | 12 | 480 | 27 | 1006 | 35 | 126 | 23 | 1813 | 26 |
| Don't know | 935 | 55 | 437 | 24 | 134 | 5 | 14 | 2 | 1520 | 22 |
| No intention | 487 | 29 | 594 | 33 | 409 | 14 | 38 | 7 | 1528 | 22 |
| TOTAL | 1685 | 99 | 1793 | 100 | 2858 | 100 | 546 | 99 | 6882 | 99 |

TABLE 3
CEKTAINTY OF GOING TO COLLEGE AS PERCEIVED BY TWELFTH GRADE BOYS
IN OAKLAND AND MACOMB COUNTY AND THEIR PARENTS'
EDUCATIONAL ASPIRATION LEVEL FOR THEM

| The degree of students 1 certainty of college attendance | The highest educational level to which the parents of these students aspire for their children |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High school |  | Beyond high school |  | College |  | Beyond college |  | Total number |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Fct. |
| Very certain | 22 | 3 | 115 | 16 | 411 | 44 | 79 | 57 | 627 | 26 |
| Fairly certain | 71 | 11 | 222 | 30 | 374 | 40 | 44 | 32 | 711 | 29 |
| Don't know | 365 | 56 | 175 | 24 | 29 | 3 | 2 | 1 | 571 | 23 |
| No intention | 187 | 29 | 222 | 30 | 124 | 13 | 13 | 9 | 546 | 22 |
| TOTAL | 645 | 99 | 734 | 100 | 935 | 100 | 138 | 99 | 2455 | 100 |

$x^{2}>1$ per cent
aspire to more than four years of college for their sons, while only three per cent of the parents aspire to a high school education for their boys. In families where the boys have no intention of attending college, only nine per cent of the parents hope for more than four years of college, while 29 per cent of the parents aspire to a high school education for their sons. The comparison between twelfth grade girls and their parents, as shown in Table 4, is even more striking. In families in which the girls are very certain of going to college, 83 per cent of the parents desire their daughters to go beyond college, while only four per cent of these parents aspire to only a high school education for their daughters. In families in which the girls have no intention of college attendance, only three per cent of their parents hope their daughters go beyond college attendance, while 20 per cent of the parents are willing to settle for a high school education.

The tenth grade boys and their parents follow this same pattern. This is indicated in Table 5. In families in which the boys are very certain of college attendance, 63 per cent of their parents aspire to more than four years of college attendance for their sons, while only four per cent of the parents hope for a high school education for their boys. In families where the boys have no intention of going to college, seven per cent of their parents desire a beyond college education for them, while 37 per cent of the parents aspire to high school only for their sons.
TABLE 4
CERTAINTY OF GOING TO COLLEGE AS PERCEIVED BY TwELFTH GRADE GIRLS

| The degree of students' certainty of college attendance | The highest educational level to which the parents of these students aspire for their children |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High school |  | Beyond high school |  | College |  | Beyond college |  | Total number |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Very certain | 18 | 4 | 76 | 21 | 281 | 57 | 54 | 83 | 429 | 31 |
| Fairly certain | 27 | 6 | 72 | 20 | 118 | 24 | 5 | 8 | 222 | 16 |
| Don't know | 308 | 69 | 122 | 34 | 39 | 8 | 4 | 6 | 473 | 35 |
| No intention | 91 | 20 | 89 | 25 | 57 | 12 | 2 | 3 | 239 | 18 |
| TOTAL | 444 | 99 | 359 | 100 | 495 | 101 | 65 | 100 | 1363 | 100 |

TABLE 5
CERTAINTY OF GOING TO COLLEGE AS PERCEIVED BY TENTH GRADE BOYS IN OAKLAND AND MACOMB COUNTY AND THEIR PARENTS'
EDUCATIONAL ASPIRATION LEVEL FOR THEM

| The degree of students ${ }^{1}$ certainty of college attendance | The highest educational level to which the parents of these students aspire for their children |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High school |  | Beyond high school |  | College |  | Beyond college |  | Total number |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Very certain | 15 | 4 | 45 | 11 | 322 | 37 | 128 | 63 | 510 | 27 |
| Fairly certain | 64 | 16 | 108 | 25 | 362 | 41 | 58 | 28 | 592 | 31 |
| Don't know | 177 | 44 | 79 | 18 | 34 | 4 | 4 | 2 | 294 | 15 |
| No intention | 148 | 37 | 196 | 46 | 160 | 18 | 14 | 7 | 518 | 27 |
| TOTAL | 404 | 101 | 428 | 100 | 878 | 100 | 204 | 100 | 1914 | 100 |

$x^{2}>1$ per cent

The educational aspiration level of tenth grade girls and their parents is even more alike than thet of tenth grade boys and their parents. Table 6 shows that in the families where the girls are certain they are going to college, 77 per cent of the parents desire a greater than college education for their daughters, and only four per cent of the parents indicate they would be satisfied with a high school graduation for their girls. In families where the girls have no intention of going to college, six per cent of the parents plan on more than four years of college attendance for their daughters and 32 per cent of the parents express satisfaction with high school graduation for their girls.

Conclusions. The information on each of the tables seems to indicate that in families where the tenth and twelfth grade boys and girls are certain of attending college, a high percentage of the parents aspire to college attendance for their children. In families in which the boys and girls have no intention of going to college, only a small percentage of the parents hope for a collegiate education for their children. An examination of the data presented in the five tables concerning the probability of a relationship between the certainty of going to college as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents' educational aspiration level for their children seems to indicate the existence of this relationship. The data seem to validate the two conditions necessary to test the hypothesis.
TABLE 6

| The degree of students' certainty of college attendance | The highest oducational level to which the parents of these students aspire for their children |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | High school |  | Beyond high school |  | College |  | Beyond college |  | Total number |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Very certain | 7 | 4 | 46 | 17 | 295 | 54 | 107 | 77 | 455 | 40 |
| Fairly certain | 39 | 20 | 78 | 29 | 152 | 28 | 19 | 14 | 288 | 25 |
| Don't know | 85 | 44 | 61 | 22 | 32 | 6 | 4 | 3 | 182 | 16 |
| No intention | 61 | 32 | 87 | 32 | 68 | 12 | 9 | 6 | 225 | 20 |
| TOTAL | 192 | 100 | 272 | 100 | 547 | 100 | 139 | 100 | 1150 | 101 |

$x^{2}>1$ per cent

The findings with respect to the probability of a relationship between the vocational goals as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents' vocational aspiration level for them. If the second hypothesis of this study is valid, that is, if there is a positive relationship between the vocational goals as seen by sophomores and seniors and their parents' vocational goals for them, the following conditions must prevail: (1) As the vocational aspiration level of sophomores and seniors increases, the vocational aspiration level of the parents for their children must increase; (2) As the vocational aspiration level of sophomores and seniors declines, the vocational aspiration level of the parents for their children must also decline.

In testing the validity of these conditions, it is essential that in the first of the conditions mentioned above the percentage of sophomores and seniors with high vocational goals is greater in families in which the parents have high vocational goals for their children than in families in which the parents have low vocational goals for their children. If the second condition is valid, then the percentage of sophomores and seniors with low vocational goals is higher in families in which parents have low vocational goals for their sophomore and senior children than in families where the parents have high vocational goals for their children.

Table 7 indicates that in families in which the tenth and twelfth grade students aspire to a profession as an occupation,
TABLE 7
VOCATIONAL GOALS AS PERCEIVED BY TENTH AND TWELFTH GRADE STUDENTS
IN OAKLAND AND MACOMB COUNTY HIGH SCHOOLS AND THEIR
PARENTS' VOCATIONAL ASPIRATION LEVEL FOR THEM

| ```Vocational goals of students``` | Level of parents' vocational aspiration for their tenth and twelfth grade children |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Clerical and sales |  | Service occupations |  | Skilled. semi-skilled, unskilled |  | Undecided |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Professional | 2392 | 72 | 59 | 8 | 22 | 11 | 43 | 15 | 377 | 24 | 2893 | 48 |
| Clerical and sales | 267 | 8 | 557 | 79 | 8 | 4 | 12 | 4 | 241 | 15 | 1085 | 18 |
| Service occupations | 118 | 4 | 14 | 2 | 139 | 70 | 27 | 9 | 100 | 6 | 398 | 6 |
| Skilled, semi-skilled, unskilled | 80 | 2 | 7 | 1 | 6 | 3 | 151 | 51 | 59 | 4 | 303 | 5 |
| Undecided | 460 | 14 | 68 | 10 | 23 | 12 | 61 | 21 | 793 | 51 | 1405 | 23 |
| total | 3317 | 100 | 705 | 100 | 198 | 100 | 294 | 100 | 1570 | 100 | 6084 | 100 |

$x^{2}>1$ per cent

72 per cent of their parents also desire a profession as a vocation for their children. In these same families only 15 per cent of the parents aspire to a skilled, semi-skilled, or unskilled vocation for their children. In families in which the students aspire only to a skilled, semi-skilled, or unskilled job, only two per cent of their parents aspire to a profession for their children, while 51 per cent of these parents are willing to settle for a skilled, semi-skilled, or unskilled job for these tenth and twelfth graders. Table 8 shows the relationship between the vocational goals of twelfth grade boys and the vocational goals their parents hold for their sons. In families in which the boys are looking toward a profession as a vocational goal, 80 per cent of their parents agree with this aim. Only 12 per cent of these parents look to a skilled, semi-skilled, or unskilled vocation for their sons. In families in which the twelfth grade boys predict a skilled, semi-skilled, or unskilled vocation for themselves, only four per cent of their parents aspire to a profession for their sons, while 62 per cent of these parents agree with their sons' choice of a skilled, semiskilled, or unskilled vocational choice.

Table 9 makes a similar comparison between twelfth grade girls and their parents. In families in which the girls foresee entering a profession, 68 per cent of the parents agree with this choice. The response to the questions regarding skilled, semiskilled, and unskilled vocations was negligible on the part of both the girls and their parents and, therefore, is not reported.
TABLE 8

| ```Vocational goals of students``` | Level of parents' vocational aspiration for their twelfth grade boys |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Service occupations |  | Skilled, semi-skilled. unskilled |  | Undecided |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Professional | 516 | 80 |  |  | 12 | 12 | 69 | 30 | 597 | 61 |
| Service occupations | 33 | 5 |  |  | 3 | 3 | 21 | 9 | 57 | 6 |
| Skilled, semi-skilled, unskilled | 27 | 4 |  |  | 60 | 62 | 20 | 8 | 107 | 11 |
| Undecided | 66 | 10 |  |  | 22 | 23 | 123 | 53 | 211 | 21 |
| TOTAL | 642 | 99 |  |  | 97 | 100 | 233 | 100 | 972 | 99 |

$x^{2}>1$ per cent
TABLE 9
VOCATIONAL GOALS AS PERCEIVED BY TWELFTH GRADE GIRLS IN OAKLAND AND MACOMB COUNTY HIGH SCHOOLS AND THEIR PARENTS'
VOCATIONAL ASPIRATION LEVEL FOR THEM

| ```Vocational goals of students``` | Level of parents' vocational aspiration for their twelfth grade girls |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Clerical and sales |  | Homemaking |  | Undecided |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Professional | 424 | 68 | 15 | 7 |  |  | 69 | 22 | 508 | 44 |
| Clerical and sales | 111 | 18 | 178 | 80 |  |  | 88 | 28 | 377 | 33 |
| Homemaking | 12 | 2 | 8 | 4 |  |  | 12 | 4 | 32 | 3 |
| Undecided | 75 | 12 | 22 | 10 |  |  | 139 | 45 | 236 | 20 |
| total | 622 | 100 | 223 | 101 |  |  | 308 | 99 | 1153 | 100 |

$x^{2}>1$ per cent

Table 10 compares the vocational goals of tenth grade boys with the vocational goals their parents hold for them. In families in which the tenth grade boys aspire to a profession, 73 per cent of the parents hold a similar vocational goal, while only 10 per cent of the parents in this family group have a skilled, semiskilled, or unsicilled vocational goal for their sons. In the families in which the boys aspire to a skilled, semi-skilled, or unskilled job, only five per cent of the parents plan a professional career for their sons and 58 per cent agree with the boys' choice of a skilled, semi-skilled, or unskilled vocation.

Table 11 indicates that the comparison between the vocational goals of tenth grade girls and the vocational goals their parents hold for them follows the same pattern. In families in which the girls aspire to a profession, 69 per cent of the parents agree. As was the case with the twelfth grade girls and their parents, the responses to the questions concerning a skilled, semiskilled, or unskilled job was too negligible to report.

Conclusions. In families in which the boys and girls aspire to a profession as a vocation, the percentage of parents who look forward to a professional career for their sons and daughters is considerably higher than the percentage of parents who anticipate a skilled, semi-skilled, or unskilled job for their children. In families in which the boys and girls look ahead to only a skilled, semi-skilled, or unskilled job, the percentage of parents who hope for a profession as a vocation for their sons and daughters is quite
TABLE 10
VOCATIONAL GOALS AS PERCEIVED BY TENTH GRADE BOYS IN OAKLAND
AND MACOMB COUNTY HIGH SCHOOLS AND THEIR PARENTS'
VOCATIONAL ASPIRATION LEVEL FOR THEM

| ```Vocational goals of students``` | Level of parents' vocational aspiration for their tenth grade boys |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Service occupations |  | Skilled, semi-sidilled, unskilled |  | Undecided |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Professional | 737 | 73 | 10 | 17 | 15 | 10 | 119 | 26 | 881 | 53 |
| Service occupations | 62 | 6 | 40 | 67 | 22 | 14 | 51 | 11 | 175 | 10 |
| Skilled, semi-skilled, unskilled | 47 | 5 | 3 | 5 | 88 | 58 | 36 | 8 | 174 | 10 |
| Undecided | 157 | 16 | 7 | 12 | 28 | 18 | 253 | 55 | 445 | 27 |
| TOTAL | 1003 | 100 | 60 | 101 | 153 | 100 | 459 | 100 | 1675 | 100 |

$x^{2}>1$ per cent
TABLE 11

| $\begin{aligned} & \text { Vocational } \\ & \text { goals } \\ & \text { of } \\ & \text { students } \end{aligned}$ | Leval of parents' vocational aspiration for their tenth grade girls |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Clerical and sales |  | Service occupations |  | Undecided |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Professional | 725 | 69 | 29 | 6 |  |  | 120 | 21 | 874 | 43 |
| Clerical and sales | 140 | 13 | 362 | 82 |  |  | 142 | 25 | 644 | 31 |
| Service occupations | 17 | 2 | 13 | 3 |  |  | 23 | 4 | 53 | 3 |
| Undecided | 162 | 16 | 36 | 8 |  |  | 278 | 49 | 476 | 23 |
| TOTAL | 1044 | 100 | 440 | 99 |  |  | 563 | 99 | 2047 | 100 |

small. An analysis of the five tables concerning a comparison of the vocational goals of tenth and twelfth graders and the vocational goals the parents hold for their children indicates the likelihood of the relationship set forth in the hypothesis.

The findings with respect to the probability of a relationship between the educational attainment level of the parents of tenth and twelfth grade students in Oakland and Macomb County public high schools and the educational goals they hold for their children. If the third hypothesis of this study is valid, that is, if there is a positive relationship between the educational attainment level of parents and the educational goals they hold for their children, the following conditions must prevail: (1) The higher the educational attainment level of the parents of the tenth and twelfth graders the higher the educational goals they hold for their children; (2) The lower the educational attainment level of the parents of the tenth and twelfth graders the lower the educational goals they hold for their children.

In testing the validity of these conditions, it follows that if the first condition is valid, then there is a greater percentage of parents with a college education who have greater than high school educational goals for their tenth and twelfth grade boys and girls than the percentage of parents with less than a high school education. If the second condition is valid, there is a greater percentage of parents with less than a high school education who have less than a college educational goal for their
tenth and twelfth grade boys and girls than the percentage of parents with a college education.

Table 12 compares the fathers' educational attainment level with their educational aspirations for their tenth and twelfth grade boys and girls. In families in which the father's educational goal for his children is less than college, 66 per cent of the fathers had less than a high school education and 20 per cent had greater than a high school education. In families in which the father's educational goal for his children is college or beyond college, 34 per cent of the fathers had less than a high school education, and 79 per cent had gone to college or beyond.

Table 13 makes a similar comparison between mothers and their tenth and twelfth grade boys and girls. In families in which the mother's educational goal for her children is less than college, 67 per cent of them had less than a high school education and 20 per cent had greater than a high school education. In families in which the mother's educational goal for her children is college or beyond college, 33 per cent of the mothers had less than a high school education and 80 per cent had attended college four years or more. It is interesting to note the similarity in responses between the fathers and mothers.

Table 14 reveals a comparison between the fathers' educational attainment level and their educational aspiration level for their twelfth grade boys. In families in which the father's educational goal for his son is less than college, 51 per cent of the
TABLE 12
COMPARISON OF FATHERS' EDUCATIONAL ATTAINMENT LLEVEL AND THEIR EDUCATIONAL ASPIRATIONS FOR THEIR TENTH AND

| Fathers ' goal for children | Fathers' educational attainment level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through high school | 1180 | 35 | 303 | 19 | 103 | 6 | 1586 | 24 |
| $\begin{aligned} & \text { High school } \\ & \text { plus } \end{aligned}$ | 1056 | 31 | 457 | 28 | 228 | 14 | 1741 | 26 |
| Through college | 1023 | 30 | 744 | 46 | 1018 | 63 | 2785 | 42 |
| College plus | 149 | 4 | 118 | 7 | 263 | 16 | 530 | 8 |
| TOTAL | 3408 | 100 | 1622 | 100 | 1612 | 100 | 6642 | 100 |

$x^{2}>1$ per cent
-
TABLE 13
COMPARISON OF MOTHERS' EDUCATIONAL ATTAINMENT LEVEL AND THEIR EDUCATIONAL ASPIRATIONS FOR THEIR TENTH AND
TWELFTH GRADE BOYS AND GIRIS

| Mothers ${ }^{1}$ goal for children | Mothers' educational attainment level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through high school | 1083 | 37 | 429 | 18 | 69 | 6 | 1581 | 24 |
| High school plus | 875 | 30 | 667 | 28 | 171 | 14 | 1713 | 26 |
| Through college | 853 | 29 | 1130 | 47 | 760 | 63 | 2743 | 42 |
| College plus | 126 | 4 | 186 | 7 | 209 | 17 | 521 | 8 |
| TOTAL | 2937 | 100 | 2412 | 100 | 1209 | 100 | 6558 | 100 |

$x^{2}>1$ per cent
TABLE 14
COMPARISON OF FATHFRS' EDUCATIONAL ATTAIMMENT LEVEL AND THEIR EDUCATIONAL ASPIFATIONS FOR THEIF TWELFTH

| Fathers' goal for boys | Fathers' educational attainment level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through high school | 135 | 24 | 37 | 13 | 9 | 3 | 181 | 16 |
| High school plus | 156 | 27 | 75 | 26 | 33 | 13 | 264 | 24 |
| Through college | 234 | 41 | 144 | 51 | 155 | 60 | 533 | 48 |
| College plus | 46 | 8 | 28 | 10 | 63 | 24 | 137 | 12 |
| TOTAL | 571 | 100 | 284 | 100 | 260 | 100 | 1115 | 100 |

$x^{2}>1$ per cent
fathers have less than a high school education and 16 per cent have gone beyond high school. In families in which the father's educational goal for his son is college or beyond college, 49 per cent of the fathers had less than a high school education and 84 per cent had gone to college or beyond college.

Table 15 presents similar data for fathers and their twelfth grade daughters. In families in which the father's educational goal for his daughter is less than college, 72 per cent of the fathers have less than a high school education, while 29 per cent have gone beyond high school. In families in which the mother's educational goal for her daughter is colleze or beyond college, 28 per cent of the mothers have less than a high school education and 71 per cent have attended college four years or more.

Table 16 presents a comparison of the fathers' educational attainment level and their educational aspiration level for their tenth grade boys. In families in which the father's educational goal for his tenth grade son is less than college, 61 per cent of the fathers have less than a high school education and 15 per cent have gone beyond high school. In families in which the father's educational goal for his son is college or beyond college, 39 per cent of the fathers have less than a high school education and 84 per cent have gone through college or beyond.

Table 17 shows the relationship between the educational attainment level of fathers and their educational goals for their tenth grade girls. In families in which the father's educational
TABLE 15
COMPARISON OF FATHERS' EDUCATIONAL ATTAINMENT LEVEL AND THEIR IWAL ASPIRATIONS FOR THEIR
TWELFTH GRADE GIFLS

| Fathers ' goal for girls | Fathers' educational attainment level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through high school | 313 | 44 | 70 | 24 | 34 | 12 | 417 | 32 |
| $\begin{aligned} & \text { High school } \\ & \text { plus } \end{aligned}$ | 199 | 28 | 95 | 32 | 49 | 17 | 343 | 26 |
| Through college | 174 | 25 | 114 | 38 | 187 | 63 | 475 | 37 |
| College <br> plus | 19 | 4 | 18 | 6 | 25 | 8 | 62 | 5 |
| total | 705 | 100 | 297 | 100 | 295 | 100 | 1297 | 100 |

$x^{2}>1$ per cent
TABLE 16
COMPARISON OF FATHEFS' EDUCATIONAL ATTAINMENT LEVEL AND
THEIR EDUCATIONAL ASPIHATIONS FOR THEIR
TENTH GRADE BOYS
Fathers' educational attainment level

| Fathers' goal for boys | Less than high school |  | High school |  | College |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through high school | 287 | 31 | 73 | 16 | 25 | 5 | 385 | 21 |
| High school plus | 273 | 30 | 88 | 19 | 50 | 10 | 411 | 22 |
| Through college | 309 | 34 | 259 | 56 | 295 | 61 | 863 | 46 |
| College plus | 46 | 5 | 44 | 9 | 111 | 23 | 201 | 11 |
| TOTAL | 915 | 100 | 464 | 100 | 481 | 99 | 1860 | 100 |

TABLE 17
THEIR EDUCATIONAL ASPIRATIONS FOR THEIR
TENTH GRADE GIRIS
COMPARISON OF FATHERS' EDUCATIONAL ATTAINMENT LEVEL AND
Fathers' educational attainment level

| Fathers' goal for girls | Less than high school |  | High school |  | College |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through <br> high school | 445 | 37 | 123 | 22 | 35 | 6 | 603 | 26 |
| High school plus | 428 | 34 | 189 | 33 | 96 | 17 | 713 | 30 |
| Through college | 306 | 25 | 227 | 40 | 381 | 66 | 914 | 39 |
| College plus | 38 | 3 | 28 | 5 | 64 | 11 | 130 | 6 |
| TOTAL | 1217 | 99 | 567 | 100 | 576 | 100 | 2360 | 101 |

$x^{2}>1$ per cent
goal for his tenth grade daughter is less than college, 71 per cent of the fathers have less than a high school education and 23 per cent have gone to college. In families in which the father's educational goal for his daughter is college or beyond college, 28 per cent of the fathers have less than a high school education and 77 per cent have attended college four or more years.

Table 13 presents data showing the relationships between the educational attainment level of mothers and the educational aspiration level they have for their twelfth grade boys. In families in which the mother's educational goal for her son is less than college, 54 per cent of the mothers have less than a high school education and 13 per cent have gone through college. In families in which the mother's educational goal for her twelfth grade son is four or more years of college, 47 per cent of the mothers have less than a high school education and 87 per cent have completed or gone beyond college.

Table 19 makes a similar comparison between mothers and their twelfth grade daughters. In families in which the mother's educational goal for her twelfth grade daughter is less than college, 75 per cent of the mothers have less than a high school education and 23 per cent have four or more years of higher education. In families in which the mother's educational goal for her girl is college or beyond college, 26 per cent of the mothers have less than a high school education and 77 per cent have four or more years of college attendance.
TABLE 18
COMPARISON OF MOTHERS' EDUCATIONAL ATTAINMENT LEVEL AND THEIR EDUCATIONAL ASPIRATIONS FOR THEIR

| Mothers' goal for boys | Mothers' educational attainment level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through high school | 125 | 26 | 50 | 13 | 6 | 3 | 181 | 17 |
| High school plus | 134 | 28 | 97 | 25 | 21 | 10 | 252 | 23 |
| Through college | 194 | 40 | 189 | 50 | 134 | 62 | 517 | 48 |
| $\begin{aligned} & \text { College } \\ & \text { plus } \end{aligned}$ | 35 | 7 | 45 | 12 | 55 | 25 | 135 | 12 |
| TOTAL | 488 | 101 | 381 | 100 | 216 | 100 | 1085 | 100 |

$x^{2}>1$ per cent
TABLE 19
COMPARISON OF MOTHERS' EDUCATIONAL ATTAINMENT LEVEL AND THEIR EDUCATIONAL ASPIRATIONS FOR THEIR
TWELFTH GRADE GIRLS
Mothers' educational attainment level

| Mothers' goal for girls | Less than high school |  | High school |  | College |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through high school | 297 | 46 | 101 | 24 | 22 | 10 | 420 | 32 |
| High school plus | 187 | 29 | 119 | 30 | 30 | 13 | 336 | 26 |
| Through college | 144 | 22 | 180 | 44 | 152 | 66 | 476 | 32 |
| College plus | 24 | 4 | 13 | 3 | 26 | 11 | 63 | 5 |
| TOTAL | 652 | 101 | 413 | 101 | 230 | 100 | 1295 | 100 |

$x^{2}>1$ per cent

Table 20 shows a comparison between the educational attainment level of mothers and their tenth grade boys. In families in which the mother's educational goal for her tenth grade son is less than college, 59 per cent of the mothers have less than a high school education and 19 per cent have attended college. In families in which the mother's educational goal for her son is college or beyond college, 41 per cent of the mothers have less than a high school education and 81 per cent have gone to college or beyond college.

Table 21 presents similar information for mothers and their tenth grade girls. In families in which the mother's educational goal for her daughter is less than high school, 74 per cent of the mothers have less than a high school education and 23 per cent have gone through college. In families in which the mother's educational goal for her daughter is college or beyond college, 26 per cent of them have less than a high school education and 77 per cent have gone to college or beyond college.

Conclusions. The percentage of parents with a college education who have greater than high school educational goals for their tenth and twelfth grade children is larger than the percentage of parents with less than a high school education. Also, there is a greater percentage of parents with less than a high school education who have less than a college educational goal for their tenth and twelfth grade boys and girls than the percentage of parents with a college education. The data in the preceding ten tables seem to indicate that the two conditions necessary to test this hypothesis
TABLE 20
Mothers' educational attainment level

| Mothers' goal for boys | Less than high school |  | High school |  | College |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through high school | 234 | 31 | 112 | 13 | 19 | 6 | 365 | 20 |
| High school plus | 209 | 28 | 158 | 21 | 42 | 13 | 409 | 23 |
| Through college | 271 | 36 | 389 | 53 | 186 | 58 | 846 | 47 |
| College <br> plus | 38 | 5 | 76 | 10 | 75 | 23 | 189 | 10 |
| TOTAL | 752 | 100 | 735 | 99 | 322 | 100 | 1809 | 100 |

$x^{2}>1$ per cent
TABLE 21
COMPARISON OF MOTHERS' EDUCATIONAL ATTAINMENT LEVEL AND
THEIR EDUCATIONAL ASPIRATIONS FOR THEIR
TENTH GRADE GIRLS


| Mothers goal for girls | Less than high school |  | High school |  | College |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Through high school | 427 | 41 | 166 | 19 | 22 | 5 | 615 | 26 |
| High school plus | 345 | 33 | 293 | 33 | 78 | 18 | 716 | 30 |
| Through college | 244 | 23 | 372 | 42 | 288 | 65 | 904 | 38 |
| College plus | 29 | 3 | 52 | 6 | 53 | 12 | 134 | 6 |
| TOTAL | 1045 | 100 | 883 | 100 | 441 | 100 | 2369 | 100 |

$x^{2}>1$ per cent
are valid. Therefore, there seems to be a relationship between the educational attainment level of the parents of tenth and twelfth grade students in Oakland and Macomb County public high schools and the educational goals they hold for their children.

The findings with respect to the probability of a relationship between the educational attainment level of the parents of tenth and twelfth grade students in Oakland and Macomb County public high schools and the certainty of college attendance as perceived by their children. If this hypothesis is valid, that is, if there is a positive relationship between the educational attainment level of parents and the educational aspiration level of their children, the following conditions must prevail: (1) The higher the educational attainment level of parents the higher the educational aspiration level of their tenth and twelfth grade children; (2) The lower the educational attainment level of parents the lower the educational aspiration level of their tenth and twelfth grade children.

In testing the validity of these conditions, it seems logical to assume that if the first condition is valid, then the percentage of tenth and twelfth grade students certain to attend college is higher in families in which the parents have a high educational attainment level than in families in which the parents' educational attainment level is low. If the second condition is valid, then the percentage of tenth and twelfth grade students with no intention of going to college is higher in families in which the parents have a low educational attainment level than in families in which the educational level is high.

Table 22 presents information concerning a comparison of the fathers' educational attainment level and the certainty of college attendance as seen by their tenth and twelfth grade boys and girls. In families in which the students are certain of college attendance, 43 per cent of the fathers have less than a high school education and 80 per cent of them have completed college. In families in which the students have no intention of going to college, 27 per cent of the fathers have less than a high school education and 13 per cent have college training.

Table 23 shows a comparison of the relationship between the mothers' educational attainment level and the certainty of college attendance as perceived by their tenth and twelfth grade boys and girls. In families in which the students are certain of college attendance, 43 per cent of the mothers have less than a high school education and 80 per cent are college graduates. In families in which the boys and girls have no intention of going to college, 27 per cent of the mothers have less than a high school education and only 12 per cent have gone to college.

Table 24 shows the relationship between the fathers' educational attainment level and the certainty of college attendance as seen by their twelfth grade boys. In families in which the boys are certain of college attendance, 56 per cent of the fathers have less than a high school education and 86 per cent have gone through college. In families in which the son has no intention of going to college, 24 per cent of the fathers have less than a high school education and only eight per cent have gone to college.
TABLE 22
COAPARISON OF FATHERS' EDUCATIONAL ATTAINMENT LEVEL AND THE CERTAINTY OF COLLBIE ATTENDANCE AS PERCEIVED

| Aspiration level of student | Fathers' education level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 1509 | 43 | 962 | 59 | 1332 | 80 | 3773 | 56 |
| Don't know | 1025 | 29 | 318 | 20 | 123 | 8 | 1466 | 22 |
| No <br> intention | 949 | 27 | 349 | 21 | 209 | 13 | 1507 | 22 |
| TOTAL | 3483 | 99 | 1629 | 100 | 1634 | 101 | 6746 | 100 |

$x^{2}>1$ per cent
TABLE 23
COMPARISON OF MOTHERS' EDUCATIONAL ATTAINMENT LEVEL AND
THE CERTAINTY OF COLLEGE ATTENDANCE AS PERCEIVED

| Aspiration level of student | Mothers' education level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 1271 | 43 | 1491 | 61 | 978 | 80 | 2740 | 56 |
| Don't <br> know | 920 | 30 | 440 | 18 | 100 | 8 | 1460 | 22 |
| $\begin{aligned} & \text { No } \\ & \text { intention } \end{aligned}$ | 816 | 27 | 514 | 21 | 145 | 12 | 1475 | 22 |
| TOTAL | 3007 | 100 | 2445 | 100 | 1223 | 100 | 6675 | 100 |

$x^{2}>1$ per cent
TABLE 24
COMPARISON OF FATHERS' EDUCATIONAL ATTAINMENT LEVEL AND THE CERTAINTY OF COLLEGE ATTENDANCE AS PERCEIVED BY TWELFTH GRADE BOYS

| Aspiration level of student | Fathers' education level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 329 | 56 | 174 | 61 | 229 | 86 | 732 | 65 |
| Don't know | 114 | 20 | 49 | 17 | 15 | 6 | 178 | 16 |
| No intention | 139 | 24 | 62 | 22 | 20 | 8 | 221 | 20 |
| TOTAL | 582 | 100 | 285 | 100 | 264 | 100 | 1131 | 101 |

$x^{2}>1$ per cent

Table 25 presents similar information for fathers and their twelfth grade daughters. In families in which the girls are certain of college attendance, 36 per cent of the fathers have less than a high school education and 72 per cent have gone to college. In families in which the girls have no intention of going to college, 20 per cent of the fathers have not completed high school and 14 per cent have some education at the collegiate level.

Table 26 deals with a comparison of the fathers' educational attainment level and the certainty of college attendance as seen by their tenth grade boys. In families in which the sons are certain of college attendance, 43 per cent of the fathers have less than a high school education and 80 per cent have some college work. In families in which the son has no intention of going to college, 34 per cent of the fathers have less than a high school education and 15 per cent of them have attended college.

Similarly, Table 27 shows a comparison between fathers and their tenth grade girls. In families in which the daughters are certain of college attendance, 41 per cent of the fathers did not complete high school and 80 per cent of them completed some college work. In families in which the girls have no intention of going to college, 28 per cent of the fathers have less than a high school education and 12 per cent have had some college training.

The next four tables present comparisons between mothers and their tenth and twelfth grade boys and girls, as the preceding four tables did for fathers and their tenth and twelfth grade boys and girls.
table 25
COMPARISON OF FATHERS' EDUCATIONAL ATTAINMENT LEVEL AND THE CERTAINTY OF COLLEGE ATTENDANCE AS PERCEIVED
BY TWELFTH GRADE GIRLS

| Aspiration level of student | Fathers' educational level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 266 | 36 | 164 | 54 | 218 | 72 | 648 | 48 |
| Don't know | 319 | 43 | 91 | 30 | 44 | 14 | 454 | 34 |
| $\begin{aligned} & \text { No } \\ & \text { intention } \end{aligned}$ | 149 | 20 | 48 | 16 | 42 | 14 | 239 | 18 |
| TOTAL | 734 | 99 | 303 | 100 | 304 | 100 | 1341 | 100 |

table 26
COMPARISON OF FATHERS' EDUCATIONAL ATTAINMENT LEVEL AND the certainty of colleie attendaice as perceived BY TENTH GRADE BOYS

| Aspiration level of student | Fathers' educational level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 401 | 43 | 300 | 64 | 389 | 80 | 1090 | 58 |
| Don't know | 211 | 23 | 57 | 12 | 21 | 4 | 289 | 15 |
| No intention | 320 | 34 | 115 | 24 | 75 | 15 | 510 | 27 |
| TOTAL | 932 | 100 | 472 | 100 | 485 | 99 | 1889 | 100 |

$x^{2}>1$ per cent
TABLE 27
COMPARISON OF FATHERS' EDUCATIONAL ATTAINMENT LEVGIL AND THE CERTAINTY OF COLLGGE aTtENDANCE AS PERCEIVED BY TENTH GRADE GIRLS

| Aspiration level of student | Fathers' education level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 513 | 41 | 324 | 57 | 456 | 80 | 1303 | 54 |
| Don't know | 381 | 31 | 121 | 21 | 43 | 7 | 545 | 23 |
| $\begin{aligned} & \text { No } \\ & \text { intention } \end{aligned}$ | 341 | 28 | 124 | 22 | 72 | 12 | 537 | 23 |
| TOTAL | 1235 | 100 | 569 | 100 | 581 | 99 | 2385 | 100 |

Table 23 reveals a comparison of the mothers' educational attainment level and the certainty of college attendance as perceived by the twelfth grade boys. In families in which the sons are certain of college attendance, 57 per cent of the mothers have not completed high school and 83 per cent have gone to college. In families in which the sons have no intention of going to college, 23 per cent of the mothers have less than a high school education and 10 per cent have attended college.

A comparison of the mothers' educational attainment level and the certainty of college attendance as perceived by their twelfth grade girls is shown in Table 29. In families in which the girls are certain of college attendance, 33 per cent of the mothers have not completed high school and 56 per cent have college training. In the families in which the daughters have no intention of going to college, 22 per cent of the mothers have less than a high school education and only 10 per cent have any college work.

Table 30 presents information on the relationships between the mothers' oducational attainment level and the certainty of college attendance as seen by their tenth grade boys. In families in which the son aspires to college attendance, 45 per cent of the mothers have not finished high school and 62 per cent have gone to college. In families in which the boys have no intention of going to college, 33 per cent of the mothers have less than a college education and 15 per cent have attended college.

The last comparison in this series is between the educational attainment level of mothers and the certainty of college attendance

Mothers' education level

| Aspiration level of student | Less than high school |  | High school |  | College |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct |
| Certain | 282 | 57 | 248 | 64 | 181 | 83 | 711 | 65 |
| Don't know | 100 | 20 | 57 | 15 | 17 | 8 | 174 | 16 |
| $\begin{aligned} & \text { No } \\ & \text { intention } \end{aligned}$ | 115 | 23 | 79 | 20 | 21 | 10 | 215 | 20 |
| TOTAL | 497 | 100 | 384 | 99 | 219 | 101 | 2100 | 101 |

$x^{2}>1$ per cent
TABLE 29
COMPARISON OF MOTHERS' EDUCATIONAL ATTAINMENT LEVEL AND THE CERTAINTY OF COLLFGE ATTENDANCE AS PERCEIVED BY TWELFTH GRADE GIRLS

| Aspiration level of student | Mothers' education level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 226 | 33 | 236 | 56 | 186 | 79 | 648 | 48 |
| $\begin{aligned} & \text { Don't } \\ & \text { know } \end{aligned}$ | 302 | 45 | 123 | 29 | 28 | 12 | 453 | 34 |
| intention | 148 | 22 | 66 | 16 | 23 | 10 | 237 | 18 |
| TOTAL | 676 | 100 | 425 | 101 | 237 | 101 | 1338 | 100 |

$x^{2}>1$ per cent
TABLE 30

| Aspiration level of student | Mothers ' education level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 347 | 45 | 465 | 62 | 253 | 77 | 1065 | 58 |
| Don't know | 168 | 22 | 88 | 12 | 24 | 7 | 280 | 15 |
| No <br> intention | 255 | 33 | 186 | 25 | 50 | 15 | 491 | 27 |
| TOTAL | 770 | 100 | 739 | 99 | 327 | 99 | 1836 | 100 |

as seen by their tenth grade daughters. Table 31 shows that in families in which the girls are certain of going to college, 39 per cent of their mothers did not complete high school, while 60 per cent of them have some college work. In families in which the girls have no intention of going on to college, 28 per cent of the mothers did not finish high school and 12 per cent had some collegiate education.

Conclusions. The percentage of tenth and twelfth grade students certain to attend college is higher in families in which the parents have a high educational attainment level than in famiLies in which the parents' educational attainment level is low. The percentage of tenth and twelfth grade students with no intention of going to college is higher in families in which the parents have a low educational attainment level than in families in which the parents' educational attainment level is high. An examination of the data in the ten tables presented to support the hypothesis that there is the probability of a relationship between the educational attainment level of the parents of tenth and twelfth grade students in Oakland and Macomb County public high schools and the certainty of college attendance as perceived by their children seems to indicate the validity of the two conditions necessary to test the hypothesis.

The findings with respect to the probability of a relationship between the certainty of college attendance as perceived by tenth and twelfth grade students in Oaklend and Macomb County public
table 31
COMPARISON OF MOTHERS' EDUCATIONAL ATTAIMENT LEVEL AND
the certainty of colluge attendance as perceived

| Aspiration level of student | Mothers' education level |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than high school |  | High school |  | College |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 416 | 39 | 542 | 60 | 358 | 81 | 1316 | 55 |
| Don't | 350 | 33 | 172 | 19 | 31 | 7 | 553 | 23 |
| No intention | 295 | 28 | 183 | 20 | 51 | 12 | 529 | 22 |
| total | 1061 | 100 | 897 | 99 | 440 | 100 | 2398 | 100 |

$x^{2}>1$ per cent
hinh schools and the educational attainment level required for the vocation of their parents. If this hypothesis is valid, that is, if there is a positive relationship between the certainty of college attendance as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and the educational attainment level required for their parents' vocation, the following conditions must prevail: (1) The higher the educational attainment level required for the parents' vocation the greater the certainty of college attendance as perceived by their tenth and twelfth grade boys and girls; (2) The lower the educational attainment level required for the parents' vocation the less certainty of college attendance as perceived by their tenth and twelfth grade boys and girls.

If this flrst condition is valid, then the percentage of tenth and twelfth graders certain to attend college is higher in families in which the parent's vocation requires a higher educational attaiment level than in families where the parent's vocation requires a lower educational attainnent level. If the second condition is valid, then the percentage of tenth and twelfth grade students with no intention of going to college is higher in families where the parent's vocation requires a low educational attainment level than in families in which the parent's vocation requires a high educational level.

A comparison of the certainty of college attendance as seen by tenth and twelfth grade children and the level of educational attainment required for the vocation of fathers is shown in Table 32.
TABLE 32
COMPARISON OF EDUCATIONAL ATTAINMENT LEVEL REQUIZED FOR THE VOCA'TION OF FATHERS AND THE CERTALNTY OF COLLEXE ATTENDANCE AS PEKCEIVED
BY TENTH AND TWELFTH GRADE CHILDREN

| Educational aspiration of student | Vocation of father |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Clerical and sales |  | Service occupations |  | Agriculture |  | Skilled, semi-skilled unskilled |  | Retired, unemployed |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct | No. | Pct |
| Certain | 952 | 72 | 444 | 71 | 36 | 60 | 51 | 42 | 1000 | 48 | 1129 | 50 | 3612 | 56 |
| Don't know | 168 | 13 | 92 | 15 | 13 | 22 | 31 | 26 | 537 | 25 | 585 | 26 | 1426 | 22 |
| No <br> intention | 203 | 15 | 92 | 15 | 11 | 18 | 38 | 32 | 568 | 27 | 546 | 24 | 1458 | 22 |
| TOTAL | 1323 | 100 | 638 | 101 | 60 | 100 | 120 | 100 | 2105 | 100 | 2260 | 100 | 6496 | 100 |

In families in which the students are certain of college attendance, 72 per cent of the fathers are in the professional vocational classification and 48 per cent are in the skilled, semi-skilled, or unskilled vocations. In families in which the tenth and twelfth grade students express no intention of going to college, 15 per cent of the fathers are in the professional classification and 27 per cent in the skilled, semi-skilled, and unskilled class.

Table 33 presents similar information for mothers. In families in which the boys and girls are certain of college attendance, 69 per cent of the mothers have jobs classed as professional and 47 per cent have skilled, semi-skilled, or unskilled positions. In the families in which the sons and daughters have no intention of going to college, 19 per cent of the mothers have professional vocations and 27 per cent work in skilled, semi-skilled, or unskilled class of vocations.

The certainty of college attendance as seen by twelfth grade boys is compared with the educational attainment level required by the father's vocation in Table 34. In families in which the twelfth grade boys are certain of college attendance, 83 per cent of the fathers are in the professional vocational classification and 53 per cent are in the skilled, semi-skilled, and unskilled class. In families in which the sons have no intention of going to college, 11 per cent of the fathers have professional jobs and 26 per cent are classed as skilled, semi-skilled, and unskilled workers.

Table 35 presents similar information for fathers and twelfth grade girls. In families in which the girls are certain of college
TABLE 33
COMPARISON OF EDUCATIONAL ATTAINMENT LEVEL REQUIRED FOR THE VOCATION OF MOTHERS AND THE CERTAINTY OF COLLEGE ATTENDANCE AS PERCEIVED
BY TENTH AND TWELFTH GRADE CHILDREN

| Educational <br> aspiration of student | Vocation of mother |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Clerical and sales |  | Service occupations |  | Skilled, semi-skilled, unskillsd |  |  | Homemaking | Retired, unemployed |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 379 | 69 | 329 | 63 | 33 | 58 | 45 | 47 | 1188 | 62 | 898 | 51 | 2872 | 58 |
| Don't know | 70 | 13 | 104 | 19 | 9 | 16 | 24 | 25 | 359 | 19 | 429 | 25 | 995 | 20 |
| No <br> intention | 103 | 19 | 99 | 19 | 15 | 26 | 26 | 27 | 374 | 19 | 413 | 24 | 1030 | 21 |
| TOTAL | 552 | 101 | 532 | 101 | 57 | 100 | 95 | 99 | 1921 | 100 | 1740 | 100 | 4897 | 99 |

TABLE 34
COMPARISON OF EDUCATIONAL ATTAINMENT LEVEL REQUIRED FOR THE VOCATION OF twELFTH GRADE BOYS

| Educational aspiration of student | Vocation of father |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pro- <br> fessional |  | Clerical and sales |  | Service occupations | Agriculture |  | Skilled, semi-skilled, unskilled |  | Retired, uneraployed |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct |
| Cortain | 214 | 83 | 67 | 74 |  | 12 | 43 | 188 | 53 | 231 | 63 | 712 | 65 |
| Don't know | 16 | 6 | 9 | 10 |  | 9 | 32 | 72 | 20 | 60 | 16 | 166 | 15 |
| $\begin{aligned} & \text { No } \\ & \text { intention } \end{aligned}$ | 28 | 11 | 14 | 16 |  | 7 | 25 | 92 | 26 | 74 | 20 | 215 | 20 |
| TOTAL | 258 | 100 | 90 | 100 |  | 28 | 100 | 352 | 99 | 365 | 99 | 1093 | 100 |

$x^{2} \geqslant 1$ por oent
TABLE 35

| Educational aspiration of student | Vocation of father |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{r} P \\ \text { fess } \end{array}$ | nal | Clerical Service and sales occupations |  |  | Agriculture |  | Skilled, sermi-skilled, unskilled |  | Retired, unemployed |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 167 | 68 | 86 | 61 |  | 7 | 29 | 159 | 42 | 209 | 41 | 628 | 49 |
| Don't <br> know | 54 | 22 | 38 | 27 |  | 9 | 38 | 133 | 35 | 206 | 40 | 440 | 34 |
| No intention | 25 | 10 | 16 | 11 |  | 8 | 33 | 83 | 22 | 94 | 19 | 226 | 17 |
| TOTAL | 246 | 100 | 140 | 99 |  | 24 | 100 | 375 | 99 | 509 | 100 | 1294 | 100 |

$x^{2}>1$ per cent
COMPARISON OF EDUCATIONAL ATTAINMENT LEVEL REQUIRED FOR THE VOCATION OF
FATHERS AND THE CERTAINTY OF COLLEGE ATTENDANCE AS PERCEIVED
BY TWELFTH GRADE GIRLS
attendance, 86 per cent of the fathers have professional jobs and 42 per cent of them have jobs classed as skilled, semi-skilled, and unskilled. In the families in which the daughters express no intention of going to college, only 10 per cent of the fathers have positions listed as professional and 22 per cent are in the skilled, semi-skilled, and unskilled class.

The certainty of going to college as seen by tenth grade boys compared to the educational attainment level required for the father's vocation is shown in Table 36. In families in which the tenth grade boys are certain of going to college, 75 per cent of the fathers are in the professional vocational class and 48 per cent list their jobs as skilled, semi-skilled, and unskilled. In families in which the boys have no intention of college attendance, 18 per cent of the fatbers are in the professional class and 32 per cent are in the skilled, semi-skilled, and unskilled class.

Similar information is given for fathers and tenth grade girls in Table 37. In families in which the girls are certain of going to college, 71 per cent of the fathers have professional jobs and 47 per cent are in the skilled, semi-skilled, and unskilled group. In the families in which the girls do not plan to go to college, 15 per cent of the fathers are in the professional group and 25 per cent are in the skilled, semi-sidiled, and unskilled classification.

Table 38 shows the relationship between the certainty of college attendance as seen by twelfth grade boys and the educational attainment level required by the mother's vocation. In families in
TABLE 36
COMPARISON OF EDUCATIONAL ATTAINMENT LEVEL REQUIRED FOR THE VOCATION OF BY TENTH GRADE BOYS

| Educational aspiration of student | Vocation of father |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Clerical and sales |  | Service occupations | Agriculture |  | Skilled, semi-skdiled. unskilled |  | Retired, unemployed |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. Pct. | No. | Pct. | No. | Pct. | No. | Pct | No. | Pct |
| Certain | 318 | 75 | 117 | 69 |  | 9 | 36 | 297 | 48 | 316 | 53 | 1057 | 58 |
| Don't know | 30 | 7 | 18 | 11 |  | 5 | 20 | 120 | 19 | 104 | 18 | 277 | 15 |
| $\begin{aligned} & \text { No } \\ & \text { intention } \end{aligned}$ | 75 | 18 | 35 | 21 |  | 11 | 44 | 200 | 32 | 171 | 29 | 492 | 27 |
| TOTAL | 423 | 100 | 170 | 101 |  | 25 | 100 | 617 | 99 | 591 | 100 | 1826 | 100 |

TABLE 37
COMPARISON OF EDUCATIONAL ATTAINMENT LEVEL REQUIRED FOR THE VOCATION OF fathers and the certainty of college attendance as perceived
Vocation of father

|  | $\underset{\text { fessional }}{\text { Pro- }}$ |  | Clericaland sales |  | $\begin{gathered} \text { Service } \\ \text { occupations } \end{gathered}$ |  | $\begin{gathered} \text { ARri- } \\ \text { culture } \end{gathered}$ |  |  |  |  |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 353 | 71 | 174 | 76 | 13 | 62 | 23 | 53 | 356 | 47 | 373 | 47 | 1292 | 55 |
| $\begin{aligned} & \text { pon't } \\ & \text { know } \end{aligned}$ | 68 | 14 | 27 | 12 | 5 | 24 | 8 | 19 | 212 | 28 | 215 | 27 | 535 | 23 |
| No | 75 | 15 | 27 | 12 | 3 | 14 | 12 | 28 | 193 | 25 | 207 | 26 | 517 | 22 |
| toras | 496 | 100 | 228 | 100 | 21 | 100 |  | 100 | 761 | 100 | 795 | 100 | 2344 | 100 |

$x^{2}>1$ per cent
TABLE 38
COMPAFISON OF EDUCATIONAL ATTAINMENT LEVEL REQUIGED FOR VOCATION OF
MOI'HERS AND THE CERTAINTY OF COLLFGE ATIENDANCE AS PERCEIVED
BY TWFLFTH GRADE BOYS

| ```Educational aspiration of student``` | Vocation of mother |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Clerical and sales |  | Service occupations |  | Agriculture |  | Skilled, semi-skilled, unskilled |  |  | Homemaking | Retired, unemployed |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | - | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 78 | 80 | 55 | 60 | 7 | 88 | 1 | 17 | 10 | 59 | 226 | 71 | 176 | 61 | 553 | 67 |
| Don't know | 6 | 6 | 15 | 16 | 1 | 13 | 3 | 50 | 7 | 41 | 46 | 14 | 45 | 16 | 123 | 15 |
| No intention | 13 | 13 | 21 | 23 |  |  | 2 | 33 |  |  | 46 | 14 | 66 | 23 | 148 | 18 |
| TOTAL | 97 | 99 | 91 | 99 | 8 | 101 | 6 | 100 | 17 | 100 | 318 | 99 | 287 | 100 | 824 | 100 |

$x^{2}>1$ per cent
which the boys are certain of going to college, 80 per cent of the mothers have professional jobs and 59 per cent are in the skilled, semi-skdiled, and unskilled group. In families in which the boys have no intention of going to college, 13 per cent of the mothers are in the professional job classification group and there were no responses in the skilled, semi-skilled, and unskilled column.

The same types of relationships for mothers and their twelfth grade girls are shown in Table 39. In families in which the girls are certain of going to college, 59 per cent of the mothers have professional jobs and 53 per cent are in the skilled, semi-skilled, and unskilled vocational group. In families in which the twelfth grade girls have no intention of going to college, 19 per cent of the mothers have jobs in the professional classification and 13 per cent in the skilled, semi-skilled, and unskilled class.

The certainty of college attendance as seen by tenth grade boys is compared to the educational attainment level required for the mother's vocation in Table 40. In families in which the tenth grade boys aspire to a college education, 67 per cent of the mothers are working in the professions and 53 per cent of them are listed as working in the skilled, semi-skilled, and unskilled class. In families in which the boys have no intention of going to college, 25 per cent have professional jobs and 31 per cent are in the skilled, semi-skilled, and unskilled class.

Table 41 shows the relationships between the certainty of going to college as seen by tenth grade girls and the educational attainment level required for the mother's vocation. In the families
TABLE 39
COMPARISON OF EDUCATIONAL ATTAINMENT LEVEL REQUIRED FOR VOCATION OF MOTHEHS AND THE CERTAINTY OF COLLEGE ATTENDANCE AS PERCEIVED
BY TWEITH GRAD GIRLS

| ```Educational aspiration of student``` | Vocation of mother |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pro- <br> fessional |  | Clerical and sales |  | Service occupations |  | Agri -culture |  | Skilled, semi-skilled. unskilled |  | Homemaking |  | Retired. unemployed |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 59 | 59 | 70 | 60 | 6 | 55 |  |  | 8 | 53 | 216 | 53 | 146 | 44 | 505 | 51 |
| Don't know | 22 | 22 | 34 | 29 | 2 | 18 | 1 | 33 | 5 | 33 | 116 | 28 | 130 | 39 | 310 | 31 |
| intention | 19 | 19 | 12 | 10 | 3 | 27 | 2 | 67 | 2 | 13 | 78 | 19 | 58 | 17 | 174 | 18 |
| TOTAL | 100 | 100 | 116 | 99 | 11 | 100 | 3 | 100 | 15 | 99 | 410 | 100 | 334 | 100 | 989 | 100 |

TABLE 40
COMPAFISON OF EDUCATIONAL ATTAINMENT LEVEL REQUIKED FOK THE VOCATION OF BY TENTH GRADE BOYS

| Educational aspiration of students | Vocation of mother |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Clerical and sales |  | Service occupations |  | Agriculture |  | Skilled, semi-skilled, unskilled |  |  | Homemaking | Retired, unemployed |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct. |
| Certain | 96 | 67 | 81 | 63 | 7 | 39 |  |  | 17 | 53 | 346 | 64 | 265 | 53 | 812 | 59 |
| Don't know | 12 | 8 | 16 | 13 | 1 | 6 | 3 | 60 | 5 | 16 | 66 | 12 | 89 | 18 | 192 | 14 |
| No intention | 36 | 25 | 31 | 24 | 10 | 56 | 2 | 40 | 10 | 31 | 128 | 24 | 146 | 29 | 363 | 27 |
| TOTAL | 144 | 100 | 128 | 100 | 18 | 101 | 5 | 100 | 32 | 100 | 540 | 100 | 500 | 100 | 1367 | 100 |

$x^{2}>1$ per cent
TABLE 41
COMPARISON OF EDUCATIONAL ATTALNMENT LEVEL REQUIRED FOR THE VOCATION OF NOTHERS AND THE CERTAINTY OF COLLEGE ATTENDANCE AS PERCEIVED
BY TENTH GRADE GIALS

| Educational <br> aspiration of student | Vocation of mother |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professional |  | Clerical and sales |  | Service occupations |  | $\begin{aligned} & \text { Agri- } \\ & \text { culture } \end{aligned}$ |  | Skilled, semi-skilled, unskilled |  | $\begin{aligned} & \text { Home- } \\ & \text { making } \end{aligned}$ |  | Retired, unemployed |  | Total |  |
|  | No. | Pct. | No. | Pct. | No. | Pct. | No. | Pct | No. | Pct. | No. | Pct | No. | Pct. | No. | Pct. |
| Certain | 146 | 69 | 123 | 62 | 13 | 65 | 5 | 56 | 10 | 32 | 400 | 61 | 311 | 50 | 1008 | 58 |
| Don't know | 30 | 14 | 39 | 20 | 5 | 25 | 1 | 11 | 7 | 23 | 131 | 20 | 165 | 27 | 378 | 22 |
| No intention | 35 | 16 | 35 | 18 | 2 | 10 | 3 | 33 | 24 | 45 | 122 | 19 | 143 | 23 | 354 | 20 |
| total | 211 | 99 | 197 | 100 | 20 | 100 | 9 | 100 | 31 | 100 | 653 | 100 | 619 | 100 | 1740 | 100 |

$x^{2}>1$ per cent
in which the girls are certain of college attendance, 69 per cent of the mothers are working in jobs termed professional and 32 per cent of the mothers have skilled, semi-skilled, and unskilled jobs. In the families in which the girls have no intention of going to college, 16 per cent of the mothers list professional jobs and 45 per cent place themselves in the skilled, semi-skilled, and unskilled class.

It should be noted that in the tables which present data concerning relationships between mothers and the tenth and twelfth grade students, the responses in the column listed as skilled, semi-skilled, and unsidiled are low. This is partly due to the fact that in most cases mothers list their occupation as homemaking, which is a separate column.

Conclusions. The percentage of tenth and twelfth grade boys and girls certain to attend college is higher in families in which the parent's vocation requires a higher educational attainment level than in families where the parent's vocation requires a lower educational attainment level. With two exceptions the percentage of tenth and twelfth grade students with no intention of going to college is higher in families where the parent's vocation requires a low educational attainment level than in families in which the parent's vocation requires a high educational level. The first is the comparison of the mothers and twelfth grade boys. There were no mothers who listed their vocation as skilled, semi-skilled, or unskilled. The other exception is the comparison of mothers and
twelfth grade girls. In families in which the girls have no intention of going to college, 13 per cent of the mothers term their vocations as skilled, semi-skilled, or unskilled and 19 per cent of the mothers listed their vocations as being professional.

Data are presented in these ten tables to support the hypothesis that there is the probability of a relationship between college attendance as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and the educational attainment level required by the parent's vocation. The data shown seem to indicate the validity of the two conditions used to test the hypothesis.

The findings with respect to the probability of a relationship between the greater number of children in a family and the parents' educational aspiration for a college education for their tenth and twelfth grade boys and girls attending Oakland and Macomb County public high schools. If the hypothesis is valid, that is, if there is a positive relationship between the greater number of children in a family and the unlikelihood of parents to aspire to a college education for them, the following conditions must prevail: (1) The greater the number of children a family has, the less likely the parents are to aspire to a college education for them; (2) The fewer children 2 family has the more likely the parents are to aspire to a college education for them.

If the first condition is valid, then the percentage of parents who aspire to a college education for their children is lower in families with a larger number of children than in families
with fewer children. If the second condition is valid, then the percentage of parents who aspire to a college education for their children is higher in families with fewer children than in families with a larger number of children.

An examination of Table 42 reveals that where there is a single child, 24 per cent of their parents desire only a high school education for them and 76 per cent of the parents hope for a post-secondary school education for their only child. In families in which there are nine through fourteen children, 48 per cent of the parents aspire to only a high school education for their children and 52 per cent of the parents desire their children to go beyond high school.

A comparison of the number of children in a family and the parents' aspiration for post-secondary education for their twelfth grade boys is shown in Table 43. In families in which there is only one child, 15 per cent of the parents wish only a high school education for their child compared with 85 per cent of the parents who desire a post-secondary education for the only child. In families in which there are nine through fourteen children, 38 per cent of the parents will settle for a high school education for their child, while 62 per cent of the parents desire more than a high school education for these children.

Table 44 shows a comparison of the number of children in a family and the parents' desire for a post-secondary education for their twolfth grade girls. In families with an only child, 32 per cent of the parents indicate only a high school education for their

TABLE 4
COMPARISON OF NUNEER OF CHILDREN IN FANILY AND PAFENTS' ASFIRATION TO POST-SECONDARY EDUCATION FOR TENTH AND TWELFTH GRADE BOYS AND GIRIS

| Number of children in family | Aspiration of parents |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Through high school | Post | ndary |  |  |
|  | Number Per cent Number Per cent Number Per cent |  |  |  |  |
| 1 | $217 \quad 24$ | 690 | 76 | 906 | 100 |
| 2 | 37018 | 1697 | 82 | 2067 | 100 |
| 3 | $375 \quad 22$ | 1322 | 78 | 1697 | 100 |
| 4 | 30028 | 767 | 72 | 1067 | 100 |
| 5 | 15130 | 358 | 70 | 509 | 100 |
| 6 | 10937 | 184 | 63 | 293 | 100 |
| 7 | $63 \quad 44$ | 79 | 56 | 142 | 100 |
| 8 | $44 \quad 57$ | 33 | 43 | 77 | 100 |
| 9-14 | $49 \quad 48$ | 53 | 52 | 102 | 100 |
| TOTAL | $1678 \quad 24$ | 5182 | 76 | 6860 | 100 |

TABLE 43
COMPARISON OF NUMZER OF CHILDEEN IN FANILY AND PARENTS' ASPIRATION TO POST-SECONDARY EDUCATION FOR TWELFTH GRADE BOYS

| Number of children in famsly | Aspiration of parents |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{r} \text { Th } \\ \text { hizh } \end{array}$ |  | Post | dary |  |  |
|  | Number Per cent Number Per cent Number Per cent |  |  |  |  |  |
| 1 | 26 | 15 | 151 | 85 | 177 | 100 |
| 2 | 42 | 12 | 309 | 88 | 351 | 100 |
| 3 | 35 | 13 | 228 | 87 | 263 | 100 |
| 4 | 39 | 21 | 143 | 79 | 182 | 100 |
| 5 | 18 | 22 | 65 | 78 | 83 | 100 |
| 6 | 11 | 28 | 29 | 73 | 40 | 101 |
| 7 | 5 | 36 | 9 | 64 | 14 | 100 |
| 8 | 5 | 38 | 8 | 62 | 13 | 100 |
| 9-14 | 10 | 38 | 16 | 62 | 26 | 100 |
| TOTAL | 191 | 17 | 958 | 83 | 1149 | 100 |

## TABLE 44

COMPARISON OF NUMBER OF CHILDREN IN FAMILY AND PARENTS' ASPIRA<compat>TION TO POST -SECONDARY EDUCANION FOR TWELFTH GRADE GIRLS

## Aspiration of parents


$x^{2}>1$ per cent
children, while 68 per cent aspire to more than a high school education. In families in which there are nine through fourteen children, 50 per cent of the parents aspire to a high school education for their twelfth grade girls and 50 per cent aspire to more than a high school education for these girls.

The comparison of the number of children in a family and the parents' aspiration for a post-secondary education for their tenth grade boys is shown in Table 45. In families with one child, 19 per cent of the parents plan a high school education only for their children and 81 per cent aspire to a post-secondary education for their tenth grade boys. In families in which there are nine through fourteen children, 30 per cent of the parents look forward to a high school education only for their sons and 70 per cent aspire to more than a high school education for these tenth grade boys.

Table 46 shows the relationships between the number of children in a family and the parents' aspiration for a post-secondary education for their tenth grade girls. In families with a single child, 28 per cent of the parents look forward to only a high school education for their girl and 72 per cent look forward to their daughter's going beyond high school. In families with nine through fourteen children, 63 per cent of the parents aspire to only a high school education for their tenth grade daughters and 37 per cent wish a post-secondary education for their only child.

Conclusions. The percentage of parents who aspire to a college education for their tenth and twelfth grade boys and girls is

TABLE 45
COMPARISON OF NUMBER OF CHILDREN IN FAMILY AND PARENTS'
ASPIRATION TO POST-SECONDARY EDUCATION FOR TENIH GRADE BOYS

| Number of children in family | Aspiration of parents |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Through high school | Post | ndary | Total |  |
|  | Number Per cent Number Per cent Number Per cent |  |  |  |  |
| 1 | 4919 | 204 | 81 | 253 | 100 |
| 2 | $90 \quad 15$ | 513 | 85 | 603 | 100 |
| 3 | $110 \quad 23$ | 374 | 77 | 484 | 100 |
| 4 | $70 \quad 24$ | 216 | 76 | 286 | 101 |
| 5 | $32 \quad 27$ | 88 | 73 | 120 | 100 |
| 6 | 2631 | 59 | 69 | 85 | 100 |
| 7 | $10 \quad 24$ | 32 | 76 | 42 | 100 |
| 8 | 950 | 9 | 50 | 18 | 100 |
| 9-14 | 630 | 14 | 70 | 20 | 100 |
| TOTAL | 40221 | 1509 | 79 | 1911 | 100 |

TABLE 46
COMPAFISON OF NUNBER OF CHILDPEN IN FAMILY AND PARENTS' ASPIRATION TO POST-SECONDARY EDUCATION FOR TENTH GRADE GIRLS

lower in families with a larger number of children than in families with fewer children. Also, the percentage of parents who aspire to a college education for their children is higher in families with fewer children than in families with a larger number of children. However, an inspection of the data concerning families with two children reveals some interesting information. In each of the five tables, the figures indicate that in fanilies with two children, a smaller percentage of the parents aspire to a high school education for their children and a higher percentage of the parents look forward to a post-secondary education for these boys and girls than do the parents in families with only one child. An examination of the data in the five tables presented to support the hypothesis that there is the probability of a relationship between the greater number of children in a family and the parents' educational aspiration for a college education for their tenth and twelf th grade boys and girls attending Oakland and Macomb County public high schools seems to indicate that this relationship does exist. Findings with respect to the probability of a relationship between the greater number of children in a family and the certainty of college attendance as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools. If this hypothesis is valid, that is, if there is a positive relationship between the greater number of children in a family and the certainty of college attendance as perceived by tenth and twelfth grade students, the following conditions must prevail: (1) The greater number of children a family has the less likely the children
are to aspire to a college ectucation; (2) The fewer children a family has the more likely the children are to aspire to a college education.

If the first condition is valid, then the percentage of children certain of college attendance is less in families having a larger number of children than in families with few children. If the second condition is valid, then the percentage of children certain of college attendance is greater in families having fewer children than in families having a larger number of children.

A comparison of the number of children in a family and aspirations to a college education by tenth and twelfth grade boys and girls is made in Table 47. In families in which there is only one child, 59 per cent of these children are very certain of college attendance and 41 per cent have no intention. In families in which there are nine through fourteen children, 52 per cent of the boys and girls are very certain of college attendance and 48 per cent have no intention of going beyond high school.

Table 48 shows a comparison of the number of children in a family and the certainty of college attendance as seen by twelfth grade boys. In families in which there is only one child, 74 per cent of the boys are very certain of attending college and 26 per cent have no ectucational aspiration beyond high school. In families in which there are nine through fourteen children, 42 per cent of the boys are very certain of a collegiate education and 58 per cent have no such intention.

TABLE 47
COMPAFISON OF NUNEER OF C:AILDREN IN FAMLLY AND CERTAINTY OF COLLESE ATTENDAVCE AS PERCEIVED BY TENTH AND TWELFTH GRADE BOYS AND GIKLS


TABLE 48
COMPARISON OF NUMBER OF CHILDREN IN FAMLLY AND CERTAINTY OF COLLEGE ATTENDANCE AS PERCEIVED BY TWELFTH GRADE BOYS

| Number of children in family | Aspiration of students |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Very certain |  | No intention |  | Total |  |
|  | Number | Per cent | Number | Per cent | Number | Per cent |
| 1 | 65 | 74 | 23 | 26 | 88 | 100 |
| 2 | 162 | 76 | 52 | 24 | 214 | 100 |
| 3 | 215 | 75 | 38 | 25 | 153 | 100 |
| 4 | 72 | 71 | 30 | 29 | 102 | 100 |
| 5 | 26 | 59 | 18 | 41 | 44 | 100 |
| 6 | 11 | 61 | 7 | 39 | 18 | 100 |
| 7 | 3 | 33 | 6 | 67 | 9 | 100 |
| 8 | 2 | 29 | 5 | 71 | 7 | 100 |
| 9-14 | 5 | 42 | 7 | 58 | 12 | 100 |
| TOTAL | 461 | 71 | 186 | 29 | 647 | 100 |

A similar comparison is made for twelfth grade girls in Table 49. In families with a single child, 51 per cent aspire to a college education and 49 per cent have no intention of going beyond high school. In families in which there are nine through fourteen children, 20 per cent of the girls look forward to college attendance and 80 per cent have no such plans.

Table 50 presents similar data for tenth grade boys. In families with an only child, 71 per cent anticipate attending college and 29 per cent do not intend going beyond high school. In the larger families with nine through fourteen children, 50 per cent of the boys are very certain of college attendance and a like percentage have no intention of going to college.

The data for tenth grade girls are in Table 51. In families with only one child, 46 per cent of the tenth grade girls plan college attendance and 54 per cent have no educational plans beyond high school. In the families with nine through fourteen children, 27 per cent are very certain of a collegiate education and 73 per cent look forward to no more than a high school education.

Conclusions. The percentage of children certain of college attendance is less in families having a larger number of children than in families with fewer children. The percentage of boys and girls certain of college attendance is greater in families having fewer children than in families having a larger number of children. However, the differences in percentages are not large. For example, in families with an only child 59 per cent

TABLE 49
COMPARISON OF NUMBER OF CHILUTEN IN FAMILY AND CERTAINTY of COLLfie attendince as perceived by TWELFTH GRADE GIRLS

| Number of children in family | Aspiration of students |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Very certain |  | No intention |  | Total |  |
|  | Number Per cent |  | Number | Per cent | Number | Per cent |
| 1 | 61 | 51 | 58 | 49 | 119 | 100 |
| 2 | 159 | 58 | 115 | 42 | 274 | 100 |
| 3 | 126 | 53 | 113 | 47 | 239 | 100 |
| 4 | 48 | 36 | 84 | 64 | 132 | 100 |
| 5 | 26 | 37 | 45 | 63 | 71 | 100 |
| 6 | 17 | 38 | 28 | 62 | 45 | 100 |
| 7 | 4 | 28 | 18 | 82 | 22 | 100 |
| 8 | 2 | 11 | 17 | 89 | 19 | 100 |
| 9-14 | 2 | 20 | 8 | 80 | 10 | 100 |
| TOTAL | 445 | 48 | 486 | 52 | 931 | 100 |

TABLE 50
COMPAFISON OF NUMBER OF CHILDREN IN FANILY AND CERTAINTY OF COLLEGE ATTENDANCE AS FERCEIVED BY TENTH GRADE BOYS


TABLE 51
COMPAFISON OF NUNEER OF CHILDFEN IN FANILY AND CERTAINTY OF COLLECE ATTENDANCE AS PERCEIVED BY

TENTH GRADE GIRLS

| Number of children in family | Aspiration of students |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Very certain |  | No intention |  | Total |  |
|  | Number Per cent |  | Number | Per cent | Number | Per cent |
| 1 | 69 | 46 | 81 | 54 | 150 | 100 |
| 2 | 241 | 64 | 137 | 36 | 378 | 100 |
| 3 | 169 | 58 | 123 | 42 | 292 | 100 |
| 4 | 83 | 45 | 102 | 55 | 185 | 100 |
| 5 | 37 | 39 | 58 | 61 | 95 | 100 |
| 6 | 16 | 31 | 36 | 69 | 52 | 100 |
| 7 | 9 | 33 | 18 | 67 | 27 | 100 |
| 8 | 3 | 20 | 12 | 80 | 15 | 100 |
| 9-14 | 4 | 27 | 11 | 73 | 15 | 100 |
| total | 631 | 52 | 578 | 48 | 1209 | 100 |
| $x^{2}>1$ per cent |  |  |  |  |  |  |

of the boys and girls are certain of college attendance and 41 per cent have no intention, while in families with nine through fourteen children, 52 per cent of the children foresee college attendance and 48 per cent have no intention of going beyond high school. The greatest differences exist in the comparison of twelfth grade girls. In families with a single child, 51 per cent of the girls look forward to a college education and 49 per cent have no intention of going farther than high school, while in families with nine through fourteen children only 20 per cent of the girls are certain of college attendance and 80 per cent plan to terminate their formal education at the high school level. The data in the previous five tables, which are introduced to support the hypothesis that there is the probability of a relationship between the greater number of children in a family and the certainty of college attendance as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools, suggest the probability of this relationship existing.

The Problem. This study had as its problem to explore the probability of relationships between the educational and vocational goals of tenth and twelfth grade boys and girls in Oakland and Macomb County public high schools and the expressed educational and vocational goals of the parents for these children.

Methods of Collecting Data. Michigan State University plans to open a branch college in Oakland County in the fall of 2958. In order to plan an educational program to fit the needs of the people in the area to be served by the proposed institution, Michigan State University officials decided to gather information by distributing questionnaires. This decision was made after discussions with educators in Oakland and Macomb Counties. Although four questionnaires were developed, only two were used in this study, (1) for students in grades ten and twelve. (2) for parents of tenth and twelfth grade students. Superintendents of schools, elementary and secondary school principals in the two counties, together with Michigan State Oniversity staff members, contributed the items used in the questionnaires. The questionnaires were pre-tested and tested with groups in Oakland and Macomb Counties.

There were 18,387 matched pairs of questionnaires distributed to tenth and twelfth grade public high school students and their parents. Thus, there was a total of 36,776 questionnaires sent out. Of these, 22,739 were returned. Therefore, 61.83 per cent of the total number distributed responded. Of the 22,739 returned questionnaires, there were 6,882 matched pairs of questionnaires. This is 37.4 per cent of the total distributed and 100 per cent of the total matched pairs. This sample also represents 13,764 or 60.5 per cent of the 22,739 questionnaires returned.

Methodolosy. The methodology used in this study included the testing of the hypothesis by a four-part model: (1) the statement of the hypothesis, (2) the statement of conditions which must exist if the hypothesis is valid, (3) a test of these conditions, and ( 4 ) conclusions. The data used were taken from 6,882 matched samples of questionnaires returned by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents.

Findin $n_{\tilde{S}}$. The seven hypotheses used in this study were tested by the four-point model described above. The findings regarding each of these hypotheses are as follows:

Hypothesis 1. There is a probability of a relationship between the certainty of going to college as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents' educational aspiration level for
their children.
Findings regarding Hypothesis 1. (1) The percentage of children very certain to attend college is significantly higher in families where parents aspire to more than four years of college for their children than in families where the parents aspire to only a high school education for their children. (2) The percentage of children having no intention of attending college is significantly higher in families in which parents aspire to only a high school education for their children than in families in which the parents aspire to more than four years of college for their children.

Hppothesis 2. There is a probability of a relationship between the vocational goals as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and their parents' vocational aspiration level for them.

Findings regarding Hypothesis 2. (1) The percentage of sophomores and seniors with high vocational goals is greater in families in which the parents have high vocational goals for their children than in families in which the parents have low vocational goals for their children. (2) The percentage of sophomores and seniors with low vocational goals is higher in families in which the parents have low vocational goals for their sophomore and senior children than in families where the parents have high vocational goals for their children.

Hypothesis 2. Tnere is a probability of a relationship between the educational attainment level of the parents of tenth and twelftn grade students in Oakland and Macomb County public high schools and the educational goals they hold for their children.

Findinss regarding Hypothesis 2. (1) There is a greater percentage of parents with a college education who have greater than high school educational goals for their tenth and twelfth grade boys and girls than the percentage of parents with less than a high school education. (2) There is a greater percentage of parents with less than a high school education who have less than a college educational goal for their tenth and twelfth grade boys and girls than the percentage of parents with a college education.

Hypothesis 4. There is a probability of a relationship between the educational attainment level of the parents of tenth and twelfth grade students in Oakland and Nacomb County public high schools and the certainty of college attendance as perceived by their children.

Findings regarding Hypothesis 4. (1) The percentage of tenth and twelfth grade students certain to attend college is higher in families in which the parents have a high educational attainment level than in families in which the parents' educational attainment level is low. (2) The percentage of tenth and twelfth grade students with no intention of going to college is higher in
families in which the parents have a low educational attainment level than in families in which the educational level is high. Hypothesis 2. There is a probability of a relationship between the certainty of college attendance as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools and the educational attainment level required for the vocation of their parents.

Findings regarding Hypothesis 2. (1) The percentage of tenth and twelfth graders certain to attend college is higher in families in which the parent's vocation requires a higher educational attainment level than in families where the parent's vocation requires a lower educational attainment level. (2) The percentage of tenth and twelfth grade students with no intention of going to college is higher in families where the parent's vocation requires a low educational attainment level than in families in which the parent's vocation requires a high educational level.

Hypothesis 6. There is a probability of a relationship between the greater number of children in a family and the parents' educational aspiration for a post-secondary education for their tenth and twelfth grade boys and girls attending Oakland and Macomb County public high schools.

Findings regarding Hypothesis 6. The percentage of parents who aspire to a college education for their children is lower in families with a larger number of children than in families with
fewer children. Also, the percentage of parents who aspire to a college education for their boys and girls is higher in families with fewer children than in families with a larger number of children. However, it is interesting to note that in families with two children, a smaller percentage of the parents aspire to only a high school education and a higher percentage to postsecondary education for their boys and girls than do the parents in families with only one child.

Hypothesis 2. There is a probability of a relationship between the greater number of children in a family and the certainty of college education as perceived by tenth and twelfth grade students in Oakland and Macomb County public high schools. Findings regarding Hypothesis 2. The percentage of boys and girls certain of college attendance is less in families having a larger number of children than in fadilies with fewer children. The percentage of tenth and twelfth graders certain of college attendance is greater in families having fewer children than in families having a larger number of children. It should be added, however, that the differences in percentages are not great.

## CHAPTER VI

## IMPLICATIONS OF THE STUDY

I. INTRODUCTION

This study has explored the probability of relationships between the educational and vocational goals of tenth and twelfth grade boys and girls and the expressed educational and vocational goals of the parents for these children. The information revealed by this study should be helpful to many people in several ways. The findings may make a contribution to the planning, organization, administration, and development of educational programs, especially at the post-secondary and secondary school levels. For those who are planning community colleges or other post-secondary school institutions, the results give some insight into the need for such post-secondary school educational opportunities. Also, some indication is given of the possible demand for various types of post-high school educational opportunities. Those people, educators and lay citizens alike, who are seeking to develop local secondary school programs which are geared to the particular interests and needs of the student may find several implications from this study. This same information may be important to counselors, parents, students, and others interested in developing meaningful programs of counseling and guidance. A
more detailed discussion of the implication of the findings of this study for the post-secondary and secondary school levels of education is presented here.
II. POST-SECONDARY SCHOOL LEVEL

There is evidence that the number of community colleges in Michigan will increase and perhaps double in the next few years. This evidence includes such facts as:

1. A study committee on higher education in Michigan, appointed by the Legislature, has released a report on community colleges. 29 This report recommends that study of the need for establishment of community colleges be given priority in twentythree communities and that secondary priority be given in an additional fourteen communities.
2. The Legislature durirg the last two sessions has substantially increased the reimbursement per community college pupil for operation as well as providing substantial sums for capital outlay purposes.
3. Requests for consultant help from the Department of Public Instruction indicate that at least fifteen communities are interested in studying the need for providing post-secondary school educational opportunities. This includes the two counties involved in this study.
${ }^{29}$ The Comrunity College in Michigan. Survey of Higher Education in Michigan, Staff Study No. 1, Lansing, Michigan: Legislative Study Committee on Higher Education in Michigan, June, 1957.
4. The people in the counties of Bay, Midland, and Saginaw have voted to establish a tri-county comunity college, the first in the State, and perhaps the first in the nation.

In view of this evidence which supports the belief that several community colleges will be established in Michigan in the near future, it seems pertinent and timely that people in Michigan's comendities which are interested in starting a comunity college be given assistance in studying the need for and in the establishment of community colleges.

It seems that the results of this study should have many implications for those people who are planning for the establishment of community colleges. These implications include:

1. A pattern for bringing together data needed to determine if there is an apparent demand for post-secondary school educational opportunities in a given area.
2. A method for learning where the students and their parents are in their thinking in regard to educational and rocational goals.
3. A way to decide if there is a readiness on the part of the people in the proposed commuity college area to establish and support a comunity college.
4. A means of developing a "college consciousness" or a way to get more thinking on the part of both parents and students about the importance of education beyond high school. The fact that every tenth and twelfth grader and his parents was surveyed
contributes to this.
5. A way to learn which people in the area to be served by the community college are in need of more interpretation of the necessity for post-secondery school facilities. This could mean that interested organizations such as the Parent Teacher Association, study committees, service clubs, and other civic organizations could gear their programs to meet this challenge.
6. A means of predicting, with some degree of accuracy, the potential enrollment of the new institution. In spite of the importance of this problem, the writer knows of no basic research in this area. This type of study could contribute information which might decrease but not completely eliminate guesswork in community college enrollment predictions. Knowing the expressed educational and vocational goals of tenth and twelfth graders and their parents' aspirations for these children could provide valuable information in this area.
7. A basis for determining the general areas of instruction in the new institution. For example, the vocational aspirations of sophomores and seniors and of their parents for them are expressed in four broad vocational areas: (1) professional, (2) clerical and sales, (3) service occupations, and (4) skilled, semi-skilled, and unskilled. The degree of interest expressed in one or more of these vocational areas could give some direction to the planning of the courses of instruction.

Thus, information such as that provided by this study might
make an important contribution to those people in many Michigan comunities who are seriously considering the expansion of the local educational program to include the post-secondary school level.
III. SECONDARY SCHOOL LEVEI

School administrators and others interested in seeing that educational programs develop rather than just grow are challenged to predicate changes in our local secondary school programs on facts obtained from research efforts rather than on pressures from various groups or on guesses concerning what kinds of educational programs will best meet the needs of the people living in the area to be served by the school.

An analysis of the results of this study seems to indicate several implications for those having a part in administering our secondary schools. Administrators and others may use a study such as this one in many ways:

1. To determine if decisions concerring educational and vocational goals of children are being made by the family as a unit. This study presents an expression of the educational and vocational goals of more than six thousand high school students and their parents' aspirations for them. While the administrator is given knowledge concerning where the students and their parents are in their thinking in these two areas, he is not given an insight into why or how these decisions were made. Knowing the educational and vocational goals of the students and of the aspirations of the parents for them could provide a starting point for learning how
and why these goals were established. It must be recognized, of course, that such decisions are made in a field of forces of which the school and home are only a part. It does seem reasonable to assume, however, that more intelligent decisions regarding the educational and vocational goals of children and of the goals of the parents for their children can be made if the home and the school blend their efforts. Granick, Levy, and Gunner ${ }^{30}$ point out,

While the home is generally considered to be one of the most powerful molders of the attitudes, interest, and drives of the growing individual, it appears, thus far, to have been given relatively little consideration in vocational guidance programs. Many studies of the progressive development of the person from infancy to adulthood have shown that identification with parental ideals, activities, and interests is characteristic of normal personality growth. There are probably few children who do not at one time or another conceive of themselves as eventually following in the occupational footsteps of their parents. Furthermore, it is quite likely that the ambitions, desires, and attitudes of one's father and mother play a significant role directly and indirectly in the choice of vocation which is finaliy made. Counselors are probably well aware of these home influences in individual cases, and doubtless try to adjust their guidance work accordingly. But a systematic approach to the problem seems lacking at the present time.

If investigation reveals that goals are being set by the students and their parents independently of the school, there might be implications for the school administrator to (l) provide more or different counseling programs, (2) examine the community-school relations to see if parents are participating in the school program and if the staff members are active in community affairs, (3) work
${ }^{30}$ Samuel Granick, Walter J. Levy, and Murray Gunner. "Parental Attitudes and Vocational Guidance," Vocational Guidance Journal, Volume XXX, Number 1, October 1951, p. 21.
with the P.T.A., service clubs, and other community groups in developing programs which will assist the children, their parents, and the school in making wise educational and vocational choices for these children, (4) review the adult education program to see if this problem is being reflected there, (5) determine if pertinent information on file at the school is made available to students and their parents, and (6) decide if this problem should be recognized in the in-service training program of the school.

An example of how one high school is involving parents in its counseling program is reported by Hoover and Micka. ${ }^{31}$ In order to discover how closely parents perceive their child's basic interest patterns, the high school in Corvallis, Montana, carries on an interesting annual counseling activity. The high school juniors and their parents are invited to a meeting at which a representative from the guidance department of Montana State University discusses the purposes and values of guidance in educational and vocational planning. The uses, limitations, and values of the Kuder Preference Inventory are discussed, after which both parents and students take the Inventory. However, there is one important difference from the usual pattern of administering: the students take the test as usual, but the parents indicate what they think their child will answer.

A graph is made in three colors, one showing the child's preferences, another the mother's, and the third the father's. In

[^8]most instances where the pattern of the chart is similar for all three, there is close harmonious relationship in the home. When there are marked digressions, conflict situations often exist at home. Both of these results tend to show up in the child's behavior and performance at school. Further, many times the parents expressed great surprise at the interests which their child had specifically indicated.
2. To examine the secondary school programs to determine the extent to which these programs recognize the educational and vocational goals of children and their parents. In suggesting that school administrators and others might wish to examine the secondary school programs to determine the extent to which these programs recognize the educational and vocational goals of children and their parents, the writer does not mean to imply that programs should be changed solely on the basis of such information as is provided in this study. As mentioned previously, this information provides only a starting point. Perhaps it merely offers a reason for examining today's educational program in terms of the expressed educational and vocational aims of children and of the goals of the parents for their children. It could mean that the school and the people in the commenity should merge their efforts in a study of local educational conditions and needs. Perhaps these efforts might be geared to finding answers to such questions as (1) what kind of a high school program do we have in our community? (2) what kind of a program do we want? and (3) how do we go about getting the
kind of program we want? Information in this study could also subgest that the school and the community make use of consultant services offered by the many public and private community serving agencies in their efforts to have the secondary school program become more effective in helping students and parents establish and achieve wise educational and vocational aspirations.
3. To provide more exploratory experiences in the educational proprams for those students who are undecided about their educational and vocational future. This study identified a large number of students who are undecided about their educational and vocational goals. This might have several implications for the school administrator. Perhaps either the junior or senior high programs, or both, fail to provide a sufficient number of broadening and finding courses or enough exploratory experiences; or it could mean the school should insure opportunities for the child, parent, and teacher to consider the development of these goals. It might have implications for mothers' clubs, child study groups, and other organizations in the area of program planning. Perhaps more recognition should be given in the school program to such areas as choosing a vocation, vocational interest inventories, and aptitude testing. It could suggest a starting point for counselors to establish a child, parent, teacher counseling and guidance relationship.
4. To develop secondary school programs which reflect the interests and needs of those students who do not anticipate going bevond high school. This study also identifies a considerable


#### Abstract

number of students who have no intention of going beyond high school in their formal educational endeavors. Perhaps further investigation might reveal a number of this group who possess the necessary qualifications for going to college but lack motivation or understanding of the opportunities offered by institutions of higher learning. Some members of this group might have need for more vocational education opportunities in their high school program. Others of this group might be potential drop-outs and could be kept in school by counseling, a change in program, or by some other measure. It could mean that the secondary school progran stresses preparation for college to a degree which is unfair to those who do not anticipate college attendance. Perhaps some members of this group foresee barriers to college attendance which either do not exist or could be surmounted. These might include fears about such things as lack of academic ability or lack of funds.


5. To use the kind of information revealed in this study in counseling and guidance programs. In the preceding discussion, several implications have been suggested for the secondary school guidance and counseling program. However, if we recognize guidance and counseling as an integral part of instruction, it seems logical to bring these and other implications into focus in the discussion of the implications of this study for secondary school administrators. First, it should be emphasized again that the procedures and methods employed in this study make it possible to report the educational and vocational aspirations of the tenth and twelfth
grade boys and girls in all public high schools in Oakland and Macomb counties as well as the aspirations of their parents for these children. The expressed aspirations of the parents for their children seems especially significant. School people have long recognized the home as an important factor in the shaping of educational and vocational interests and attitudes, but the home has often been neglected in the secondary school guidance and counseling programs. The implications of this study for gridance and counseling programs in secondary schools might include: (1) An investigation designed to determine why students have the particular educational and vocational interests and attitudes they express; (2) An inquiry to learn how much the parents know about the reasons why their children made the particular educational and vocational choices they hold; (3) A comparison between what students prefer to do and what they plan to do as their life work; (4) A search for the answers to why children and parents have similar or unlike goals; (5) A study with participation from the school, to assist the school in setting up a guidance and counseling program which will best meet the needs of the people served by the school.

Selecting a vocation has long been one of the most difficult and complex problems our young people must solve. Today's youth, however, find this problem even more difficult and more complex. Our rapidly changing society, characterized by the current clamor over Kussia's scientific advances, underscores the
need for helping young people make a wise selection of a vocation. The kinds of information suggested here could assist our youth in making wise vocational choices.
6. To utilize the results of this study as a basis for a program of in-service education for the members of the faculty. Teachers might examine the results of the study to determine the implications of the findings of the study for the program of their particular school. This might result in a large number of the teachers becoming familiar with the educational and vocational aspirations of their students and the parents of these students. It could give the teachers an opportunity to measure their teaching efforts with the expressed goals of the students and their parents. This knowledge could also assist the teachers in shaping the content and scope of their particular courses. It might be an interesting as well as a profitable educational experience for the faculties of two or more school districts to plan joint staff meetings for the purpose of comparing experiences, interpretations, conclusions, and plans based on the study results. Thus, the staff of one school district could compare its efforts with those of the teachers in other districts. Mutual problems might be identified and solved together. An in-service training program structured to embrace the examination of the results of a study such as this one could well be a profitable educational venture.
7. To encourage adjoining school districts to compare
study results in order to learn if there are possible areas of
cooperation as a means of improving the school programs. At the present time, many schools in Michigan are sharing the financial support of certain programs with neighboring school districts. This usually results from the lack of a sufficient number of students in each school district to justify the total cost of a program. For example, there are many instances in which two or more schools share the cost of programs in agriculture, music or special education. If two or more school districts would compare study results and implications, it is possible that some areas for cooperation might be identified. Perhaps a single school district might have too few students interested in preparing for certain vocations to offer the necessary training and experience. This might become possible, however, if one or more other districts would cooperate in such a venture.
8. To use the results of this survey as a basis for discussion by various community groups. A logical follow-up activity of this studs might be an effort to get community-wide participation in the discussion of the implications for school-community planning and action. If we believe that the schools belong to the people, it seems reasonable to assume that this procedure would be proper. This discussion-group activity would differ somewhat from the type mentioned earlier in this chapter. The adult education slogans that "participation leads to understanding and understanding leads to support," or "people who share, care," might serve as the
theme of such an endeavor. One way often used to carry on a community-wide discussion program is to organize interested people in small groups according to neighborhoods. For example, a tenweek frogram might be planned. Every Monday night could be designated as "Education Study Night." Small groups throughout the community could meet in homes in a neighborhood where the residents extend an invitation to their nearby neighbors. The school might prepare discussion guides and materials for the meetings. Summaries and reports of group discussions might be published in the local newspaper each week. This is but one of many ways which make it possible to get community-wide interest, understanding and support for worthwhile educational ventures.
9. To invite staff members from institutions of higher learning to join the local high school teachers in interpreting the findings of the study and in planning follow-up activities. In an effort to attain maximum results from the study, it might be wise for local faculties to work with specialists trained in the various educational flelds encompassed by the survey and its results. For example, consultants from colleges or universities might help in evaluating the study from the standpoints of procedures, data obtained, and the implications of the results for local secondary school programs. Consultants might work with the teachers in discovering the implications of the study for the various subject matter areas. The high school counselors, for example, could use this kind of help in evaluating the present
guidance and counseling program and in overcoming its weaknesses. The vocational education program could be examined by the teachers and consultants to learn if it is geared to meet the expressed vocational aims of the students and parents and also to determine if it is providing the necessary exploratory exyeriences for those students who are undecided about their vocational future. By knitting together the efforts of the teachers with those of the consultants from colleges and universities, a continuing program of evaluation of the local secondary school program might be organized. A frequent look at the school program to see if it is meeting the current needs of its students might be one way to encourage the building of an educational program which is meeting changing needs in a changing society.
10. To study with the board of education the advisability of making a similar study periodically, perhaps every two years. This type of information could serve as a guide for program development, including counseling and guidance services. Program planning and development could then be done on a continuing basis and could be founded on current information. The cost for a single school district would not be prohibitive, and the study could be planned and conducted by students, parents, and teachers. Such an enterprise on the part of the people in a local school district might call for consultant help from the institutions of higher learning which have specialists in this field. Developing and administering a survey instrument involves some technical know-how
if it is to be effective. Also, interpreting the results of this study might demand the help of people trained in this area. Training programs in such areas as these for students, teachers, and parents offer a worth-while educational experience for those involved. When high school students and their parents participate in activities such as these, they are being given an opportunity to help shape their own educational program. This tends to result in a closer identification with the school and its problems. Then, too, this could be a way of developing and diffusing community leadership. When people are given training and experience in identifying and solving local problems, the corps of community leaders is enlarged and strengthened. A periodic survey of the educational and vocational goals of high school students and their parents might well be a wise investment of time and money for the people in a local school district.
IV. QUESTIONS FOR FURTHER RESEARCH

The results of this study imply the need for answers to many questions. Perhaps research studies could be directed toward answering such questions as the following:

1. How many of the tenth and twelfth grade students who express certainty of college attendance will achieve this goal?
2. How many of the parents of these boys and girls who predict college attendance for their sons and daughters were accurate in their predictions?
3. How many of those students who express no intention of college attendance will attend college?
4. How many of the students will eventually enter the vocation they foresee for themselves?
5. How many of the tenth graders in this study will alter their educational and vocational goals by their senior year in high school?
6. Will the parents of these tenth graders change their educational and vocational goals for their children by the time their sons and daughters are seniors in high school?
7. What are the marks or scholastic ratings of those boys and girls who expressed certainty of college attendance? What is the relationship between certainty of college attendance and scholastic achievement? What is the relationship between the results of college aptitude tests and certainty of college attendance?
8. How does the accuracy of the educational and vocational predictions of boys compare with that of the girls?
9. How accurate are the educational and vocational predictions of parents for their children?
10. What are the expressed reasons for tenth and twelfth graders foreseeing college attendance for themselves? Why do some of the tenth and twelfth graders see only high school attendance in their educational future?
11. Why did a higher percentage of parents in families with two children, in this study, express certainty of college attendance for their children than did families with only one child?

If the answers to these and other such questions are found, educators and others will be aided in their efforts to develop programs of education which will reflect the problems of the people to be served by the school. If we believe that educational advancement must depend to a large degree on research, then the importance of finding the answers to such questions as these must be recognized.
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APPENDIX

Prepared by
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The Oakland-Macomb County area is in violent transition. Unless checked by war or economic upset, the two-county area will continue to grow at an abnormal rate through 1980. The transitional nature of the area may be summarized by a number of key statements.

Population The census has trebled in 25 years and it is believed that it will more than double within the next 25 years. The total population of the two counties is expected by 1980 to equal that of the City of Detroit.

Cities Urban areas within the two counties will grow to saturation. Some are already approaching saturation, (e.g. Pontiac, Mt. Clemens, Ferndale, and Berkley). The greatest growth in the area will come in township areas such as Sterling, Waterford, Bloomfield, Farmington and a host of smaller incorporated areas such as Farmington, Holly, Rochester, Clawson, Warren and New Ealtimore.

Housing Over 81,000 new homes were authorized since 1951. The rate in 1955 was more than double that of 1951. By and large few checks have been placed on private builders to insure wholesome community planning. Consequently, the need for public lands (parks, schools, recreation areas, etc.) frequently go unattended while whole new commuities of people spring up over night. Housing waits only for the extension of water and sewers into undeveloped areas.

Occupations Since 1950, 119 new manufacturing plants have been moved into the Oakland-Macomb area employing an average of 55 workers each. The rate of plant expansion, however, has declined materially since 1953. Most of the new plants have been clustered in and around a few urban areas.

Commercial
Growth

Significantly, independent commercial outlets have given way to the shopping center. Fourteen such centers, representing capital investment of $\$ 65,000,000$, have been completed in the area since 1950. Numerous others are planned or under construction. The need for such centers, especially in Macomb County, has yet to be satisfied.

| Wealth | The total taxable wealth of the two counties has kept pace with the growth in population. Unfortunately, the taxable wealth and much of the new population increases have been distributed unequally throughout the area. Consequently, some local tax units are hard pressed to provide needed public services, while others appear to have less than average difficulties in providing service. |
| :---: | :---: |
| Goverrment | The two counties are subdivided into 74 local civil governmental units and 59 school districts, excluding special authorities and tax districts. Townships still outnumber incorporated areas, although incorporated townships may enjoy tax and budgetary privileges under present legislation. Most governmental units have some difficulty in tapping existing wealth within the existing tax structure for all needed public services. |

## Transition Promotes Problems

With rapid and continued immigration of plants, commerce and people from urban Detroit and elsewhere, the two county area provides a unique study area in urban problems.

Gaining a Chief among the counties' problems would seem to

Sense of

Governmental
Problems

Leisure and Employment

Finance A key problem for all units of government follows from the disproportionate distribution of taxable properties. Within the existing tax structure, wealth cannot readily be taxed where it exists to provide services where needed. be the integration of new people into a recognizable system of traditions and mores upon which political and planning strategy might be based. At least three regional-type planning agencies are pointing up possible planning approaches for the future. Each, however, has yet to reach citizens in such a way as to assist them in determining the kind of community they wish to have. Consecuently, the wealth of technical knowledge concerning planning which is available to residents goes partially unrealized.

Coupled with problems of planning, each local governmental unit is faced with the considerable problems of providing basic services, determining and allocating land uses, and of communications.

Large scale employment and rising personal income have contributed to make the population recreation and leisure minded. Neither tax units or private
enterprise has kept pace with the need for parks and recreation facilities. Homes, in the large subdivisions, are relatively small by modern standards, limiting somewhat family centered activities. As the population doubles again within the next twenty-five years, broad scale public land acquisition programs must be started imediately.

Education Both public and parochial education units are facirg considerable difficulties in providing adequate sites, facilities and qualified teachers for the rapidly enlarging school population. Under the present tax structure, school districts must compete with other agencies of government for sufficient tax dollars with which to construct and operate facilities and programs. With increasing automation, new demands will doubtlessly be placed on public school districts for adult and technical education programs. In order to resolve these problems, many schools, through their involvement of citizen study cormittees are attempting to integrate newcomers into the communities. Yet, in some districts, schools have become centers of major political disputes between newcomers and old time residences. Communication among people, both formal and informal, poses a key educational problem in this transitional area.

Conditions in the two-county area might be summarized somewhat as follows:

1. An area of rapid growth with a growing financial ability and some willingness to act upon its emerging commity problems;
2. Its basic problems seem to be broadly educational in nature;
a. that of involving people in responsible and intelligent acts of citizenship; and
b. developing leadership for solving its growing local and regional developmental problems.
3. It seems to present an outstanding challenge for the establishment of institutions of higher learning whose broad purposes and programs uniquely emphasize the developaent of educational leadership for comunity improvement.

STUDENT QUESTIONNAIRE

## Student

Number.
(Copy number from your parent questionnaire)

## INTRODUCTION

The Oakland-Macomb County area is growing by leaps and bounds. These changes present many problems for schools and communities. One of the most pressing problems concerns the kinds of educational opportunitios which will be needed in the near future by people who want further training beyond high school. Michigan State University in cooperation with school systems in Oakland and Macomb Counties is conducting a study of needed post-high school educational programs and services in this area. You can help in planning the future of Oakland and Macomb Counties by answering the following check-list as accurately as possible.

## DIRECTIONS

You need not write your name on this sheet. All answers are strictly confidential. Please check the one answer most appropriate for you for each question.

1. What is the name of the county in which you live?

| Oakland | $\square$ | 1 |
| :--- | :--- | :--- |
| Macomb | $\square$ | 2 |
| Genesee | $\square$ | 3 |
| Lapeer | $\square$ | 4 |
| Wayne | $\square$ | 5 |
| Other | $\square$ | 6 |

2. What is the name of the high school you attend?
3. What is your grade in school?

| 10th grade | $\square \quad 1$ |
| :--- | :--- |
| 12th grade | $\square \quad 2$ |

4. What is your sex?

| Male | $\square$ | 1 |
| :--- | :--- | :--- |
| Female | $\square$ | 2 |

5. What is your present course of study?

| College preparatory | $\square$ | 1 |
| :--- | :--- | :--- |
| General | $\square$ | 2 |
| Commercial (Business) | $\square$ | 3 |
| Vocational | $\square$ | 4 |
| Other | $\square$ | 5 |

6. How certain are you of going into specialized training or college work after high school graduation?

| Very certain | $\square$ | 1 |
| :--- | :--- | :--- |
| Fairly certain | $\square$ | 2 |
| No intention of going on to college | $\square$ | 3 |
| Don't know | $\square$ | 4 |

7. What plans, if any, have you already made to go to college after high school graduation? (Check the one most appropriate response)
You have no intention of attending college ..... 1
You have already been accepted by a college ..... 2
(Name of college)
You have applied to the college of your choice ..... 3
the college of your choice

$\square$
4

You or someone for you have made contact with
a representative of a college in which you are
particularly inferested
8. If you do not NOW plan to go to college upon graduation, what do you plan to do?

| Undecided | $\square$ | 1 |
| :--- | :--- | :--- |
| Get married | $\square$ | 2 |
| Go to work | $\square$ | 3 |
| Take some technical training courses | $\square$ | 4 |
| Take some business or commercial courses | $\square$ | 5 |
| Go into armed services | $\square$ | 6 |
| Other (specify) ................................................. | $\square$ | 7 |

9. What vocation do you plan to enter after you complete your education?

| Undecided | $\square 10$ |
| :---: | :---: |
| Accounting | $\square 11$ |
| Agriculture | $\square 12$ |
| Architecture | $\square 13$ |
| Armed service | $\square 14$ |
| Art or art and crafts | $\square 15$ |
| Auto and airplane mechanics | $\square 16$ |
| Banking |  |
| Beautician or barber | $\square 18$ |
| Building frades (mason, electrician, carpenter, etc.) | $\square 19$ |
| Business administration | $\square 20$ |
| Chemist | $\square 21$ |
| Community service | $\square 22$ |
| Dental technology | $\square 23$ |
| Dentistry | $\square 24$ |
| Drafting | $\square 25$ |
| Electronics | $\square 26$ |
| Engineering | $\square 27$ |
| Government service | $\square 28$ |
| Homemaking | $\square 29$ |
| Industrial foreman | $\square 30$ |
| Journalism | $\square 31$ |
| Lab. fechnician | $\square 32$ |
| Law | $\square 33$ |
| Medical technology | $\square 34$ |
| Medicine | $\square 35$ |
| Metal trades and machine shop | $\square 36$ |
| Ministry or Religious Education | $\square 37$ |
| Musie | $\square 38$ |
| Nursing | $\square 39$ |
| Pharmacy | $\square 40$ |
| Radio-TV | $\square 41$ |
| Retalling or Wholesale Trades | $\square 42$ |
| Salesmanship | $\square 43$ |
| Science research | $\square 44$ |
| Secretarial | $\square 45$ |
| Social work | $\square 46$ |
| Teaching | $\square 47$ |
| Veterinary medicine | $\square 48$ |
| Other (specify) |  |

as yet
10. What is the occupation of the head of your households

11. How far did your parents 90 in school?
$\begin{array}{lll}\text { Did not complete eth grade } & \square & 1 \\ \text { Completed 8th grade } & \square & 2 \\ \text { Some high school } & \square & 3 \\ \text { Completed high school } & \square & 4 \\ \text { Some college } & \square & 5 \\ \text { Completed college } & \square & 6 \\ \text { Some professional or graduate school } & \square & 7 \\ \text { Completed professional or graduate school } & \square & 8\end{array}$
12. In what additional education beyond high school are you personally interested in toking?

| None | $\square$ | 1 |
| :--- | :--- | :--- |
| Work on college degree | $\square$ | 2 |
| Courses to help in my job or to help to get a |  |  |
| $\quad$ better job |  |  |
| Courses to help me to improve my home | $\square$ | 3 |
| Courses to broaden myself | $\square$ | 4 |
| Other (Specify) ........................................................ | $\square$ | 6 |

13. If a branch of Michigan State University were located of MEADOWBROOK, three miles east of Pontiac, how certain would you be to attend such a university?

| Very certain to attend | $\square$ | 1 |
| :--- | :--- | :--- |
| Probably attend | $\square$ | 2 |
| Uncertain | $\square$ | 3 |
| Probably not attend | $\square$ | 4 |
| Certain not to attend | $\square$ | 5 |

14. If a fully accredited COMMUNITY COLLEGE* wore located whiting easy driving distance of your home how certain would you be to attend such a community college?

| Very certain to attend | $\square$ | 1 |
| :--- | :--- | :--- |
| Probably attend | $\square$ | 2 |
| Uncertain | $\square$ | 3 |
| Probably not attend | $\square$ | 4 |
| Certain not to attend | $\square$ | 5 |

15. Do you have one or more older brothers or sisters who are now attending or have attended college?

| Yes | $\square$ | 1 |
| :--- | :--- | :--- |
| No | $\square$ | 2 |
| Don't know | $\square$ | 3 |

16. If so, which of the following have they attended or are they now attending?


## COMMENTS AND REMARKS

## INTRODUCTION

The Oakland-Macomb County area is growing by leaps and bounds. These changes present many problems for schools and communities. One of the most pressing problems concerns the kinds of educational opportunities which will be needed in the near future by people who want further training beyond high school. Michigan State University in cooperation with school systems in Oakland and Macomb Counties is conducting a study of needed post-high school educational programs and services in this area. You can help in planning the future of Oakland and Macomb Counties by answering the following check-list at your earliest convenience and returning it by your child to his school for tabulation.

## DIRECTIONS

You need not write your name on this sheet. All answers are strictly confidential. Please check the one answer most appropriate for you for each question.

## INFORMATION ABOUT YOUR CHILD

1. Whet is the name of the county is which you live?

| Oakland | $\square$ | 1 |
| :--- | :--- | :--- |
| Mocomb | $\square$ | 2 |
| Cenceee | $\square$ | 3 |
| Lapeer | $\square$ | 4 |
| Woyme | $\square$ | 5 |
| Other | $\square$ | 6 |

2. How many children do you have in each of the following age greups? (lindicate number of childrem in each age group)

Pro-school
Kindergarten
Grades 1-6
Grodes 7-12
Beyond grode 12 or out of school
3. In gemeral, how for in sehred do yee want your 10 th or 12 th yrode chrid to ge?

Through high sehool $\square 1$
High school plus specialized technical or business troining

2
Through college
College plus advanced degree work
Other (specify) 5
4. In geacol, whem de you foel should be permitted to go to celloget

Those with superior ability $\square 1$
Those with abillty who have the financial means 2
All who have ability to profit from college work regardless of financial means
Other (specify) 4
5. Whet plans de yee now have for yeer 10 hh or 12 th grade chrid to cemfinue his er fore edvemition boyead high school?

| Neve of prosent | $\square$ |
| :---: | :---: |
| Am leaving it up to the child | $\square$ |
| Have a definite educational savings program | $\square$ |
| Will help child work his way through school | $\square$ |
| Expect child to win scholarship | $\square$ |
| Expect child to be trained at government expense (e.g. Armed Serviee) | $\square$ |
| Other (speeify) .-.........-.-....................................... | $\square$ |

6. If a bremeh of Michigea SAate Universily wore located ef MMAD OWRROOX, ftroe milies eact of Pentiec, how cortain would your chlld to to eftiond such a univerily?

| Vory certain to attend | $\square$ | 1 |
| :--- | :--- | :--- |
| Probably aftend | $\square$ | 2 |
| Uncertain | $\square$ | 3 |
| Probably not attend | $\square$ | 4 |
| Certain not to attond | $\square$ | 5 |

7. He fully aceredited COMMUNITY COLLEGE* were located within easy driving distance of yeur home, how certain would one or more of your children be to aftend such a community college?

| Vory certain to attend | $\square$ | 1 |
| :--- | :--- | :--- |
| Probably attend | $\square$ | 2 |
| Uncertain | $\square$ | 3 |
| Probably not attend | $\square$ | 4 |
| Cortain not to attend | $\square$ | 5 |

8. If you foel thet your child might attend such a college or university, what type of educational program would you expect himen or her to talee?

| Undecided | $\square 10$ |
| :---: | :---: |
| Accounting | $\square 11$ |
| Agriculture | $\square 12$ |
| Architecture | $\square 13$ |
| Armed service | $\square 14$ |
| Art or art and erafts | $\square 15$ |
| Auto and airplane mechanics | $\square 16$ |
| Banking | $\square 17$ |
| Beautician or barber | $\square 18$ |
| Building trade (mason, electrician, carpenter, etc.) | $\square 19$ |
| Business administration | $\square 20$ |
| Chemist | $\square 21$ |
| Community service | $\square 22$ |
| Dental technology | $\square 23$ |
| Dentistry | $\square 24$ |
| Drafting | $\square 25$ |
| Electronics | $\square 26$ |
| Engineering | $\square 27$ |
| Government service | $\square 28$ |
| Homemaking | $\square 29$ |
| Industrial foreman | $\square 30$ |
| Journalism | $\square 31$ |
| Lab. technician | $\square 32$ |
| Law | $\square 33$ |
| Medical technology | $\square 34$ |
| Medicine | $\square 35$ |
| Metal trades and machine shop | $\square 36$ |
| Ministry or Religious Education | $\square 37$ |
| Music | $\square 38$ |
| Nursing | $\square 39$ |
| Pharmacy | $\square 40$ |
| Radio-TV | $\square 41$ |
| Retalling or wholesale trades | $\square 42$ |
| Salesmanship | $\square 43$ |
| Science research | $\square 44$ |
| Secrefarial | $\square 45$ |
| Social work | $\square 46$ |
| Teaching | $\square 47$ |
| Veferinary modicine | $\square 48$ |
| Other (specify) ....................................................... | $\square 49$ |

## GENERAL INFORMATION ABOUT THE HEADS OF YOUR HOUSEHOLD

(Check the mout appropriote answer)
9. What is the occupation of the heads of the household?

|  | Husbend | Wife |
| :---: | :---: | :---: |
| Unemployed | $\square 10$ | $\square 10$ |
| Accounting | $\square 11$ | [11 |
| Agriculture | $\square 12$ | $\square 12$ |
| Architecture | $\square 13$ | $\square 13$ |
| Armed service | $\square 14$ | $\square 14$ |
| Art or art and crafts | $\square 15$ | $\square 15$ |
| Auto and airplane mechanics | $\square 16$ | $\square 16$ |
| Banking | $\square 17$ | $\square 17$ |
| Beautician or barber | $\square 18$ | $\square 18$ |
| Building trades (mason, electrician carpenter, otc.) | $\square 19$ | $\square 19$ |
| Business administration | $\square 20$ | $\square 20$ |
| Chomist | $\square 21$ | $\square 21$ |
| Community service | $\square 22$ | $\square 22$ |
| Dental technology | $\square 23$ | $\square 23$ |
| Dentistry | $\square 24$ | $\square 24$ |
| Drafting | $\square 25$ | $\square 25$ |
| Electronics | $\square 26$ | $\square 26$ |
| Engineering | $\square 27$ | $\square 27$ |
| Government service | $\square 28$ | $\square 28$ |
| Homemaking | $\square 29$ | $\square 29$ |
| Industrial foreman | $\square 30$ | $\square 30$ |
| Journalism | $\square 31$ | $\square 31$ |
| Lab. technician | $\square 32$ | $\square 32$ |
| Law | $\square 33$ | $\square 33$ |
| Medical technology | $\square 34$ | $\square 34$ |
| Medioine | $\square 35$ | $\square 35$ |
| Metal trades and machine shop | $\square 36$ | $\square 36$ |
| Ministry or Religious Education | $\square 37$ | $\square 37$ |
| Music | $\square 38$ | $\square 38$ |
| Nursing | $\square 39$ | $\square 39$ |
| Pharmacy | $\square 40$ | $\square 40$ |
| Radio-TV | $\square 41$ | $\square 41$ |
| Retailing or wholesale trades | $\square 42$ | $\square 42$ |
| Salesmanship | $\square 43$ | $\square 43$ |
| Science research | $\square 44$ | $\square 44$ |
| Secretarial | $\square 45$ | $\square 45$ |
| Social work | $\square 46$ | $\square 46$ |
| Teaching | $\square 47$ | $\square 47$ |
| Veterinary medicine | $\square 48$ | $\square 48$ |
| Retired | $\square 49$ | $\square 49$ |
| Other (specify) ............................. | $\square 50$ | $\square 50$ |

10. What formal training have the heads of the household had?

|  | Husbasd | Wife |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Did not complete 8th grade | $\square$ | 1 | $\square$ | 1 |
| Completed 8th grade only | $\square$ | 2 | $\square$ | 2 |
| Some high school | $\square$ | 3 | $\square$ | 3 |
| Completed high school | $\square$ | 4 | $\square$ | 4 |
| Some college | $\square$ | 5 | $\square$ | 5 |
| Completed college | $\square$ | 6 | $\square$ | 6 |
| Professional or graduate school | $\square$ | 7 | $\square$ | 7 |

11. In what additional education, if any, would the heads of the household be intorested in taking?

|  | Husband | Wife |  |  |
| :--- | :--- | :--- | :--- | :--- |
| None | $\square$ | 1 | $\square$ | 1 |
| Work on college degree | $\square$ | 2 | $\square$ | 2 |
| Courses to help in my job or help |  |  |  |  |
| $\quad$ to get a better job | $\square$ | 3 | $\square$ | 3 |
| Courses to help me to improve my home | $\square$ | 4 | $\square$ | 4 |
| Courses to broaden myself | $\square$ | 5 | $\square$ | 5 |
| Other (specify) .................................... | $\square$ | 6 | $\square$ | 6 |

12. If a branch of Michigan Steto University were locatod af MEADOWBROOK, three miles cast of Pontiac, how certain would the heads of the household be to aftend such a university?

| Heeband | Wife |  |  |
| :---: | :---: | :---: | :---: |
| $\square$ | 1 | $\square$ | 1 |
| $\square$ | 2 | $\square$ | 2 |
| $\square$ | 3 | $\square$ | 3 |
| $\square$ | 4 | $\square$ | 4 |
| $\square$ | 5 | $\square$ | 5 |

13. If a fully accredited COMmUNTY COLLEGE* wore locoted within easy driving distance of your home, how certain would the heods of the housohold be to aftead such a community colloge?

| Very certain to attend | $\square$ | 1 | $\square$ | 1 |
| :--- | :--- | :--- | :--- | :--- |
| Would probably attend | $\square$ | 2 | $\square$ | 2 |
| Uncertain | $\square$ | 3 | $\square$ | 3 |
| Would probably not attend | $\square$ | 4 | $\square$ | 4 |
| Would not attend | $\square$ | 5 | $\square$ | 5 |

ROOI USE ONLY.



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[^0]:    $\mathcal{I}_{\text {Robin M. Williams. Jr., American Society. A Sociological }}$ Interpretation, New York: Alfred A. Knopf, 1952, p. 282.

[^1]:    ${ }^{2}$ James Bryant Conant, Education in a Divided World, Cambridge, Massachusetts: Harvard University Press, 1948, pp. 153-54.

[^2]:    3Ibid., pp. 160-61.

[^3]:    7R. O. Beckman, "To What Extent are Vocations Inheritedi" Vocational Quidance Magazine, VIII (October 1929), pp. 9-11.
    $8_{\text {A. B. Hollingshead, Elmtown's Youth, New York: John Wiley }}$ and Sons, Inc., 1949.
    ${ }^{9}$ Elmo Roper, The Fortune Survey," Fortune XXVI (NovemberDecember, 1942).
    ${ }^{10}$ A. H. Ryden, "Including Parents in Counseling," Occupations XXIX (May, 1951).

[^4]:    15W. L. Slocum, "Occupational and Educational Plans of High School Seniors from Farm and Non-farm Homes, Pullman, Washington: State College of Washington, Bulletin 564, February 1956.

[^5]:    20 Ibid.. p. 287.
    ${ }^{21}$ Stanley L. Singer and Buford Stefflre, "The Relationship of Job Values and Desires to Vocational Aspirations of Adolescents." The Journal of Applied Psychology, Volume 38, No. 6, 1954, p. 421.
    ${ }^{22}$ Archie 0. Haller and William $H$. Sewell, Farm Residence and Levels of Educational and Occupational Aspiration," The American Journal of Sociology, Volume LXII, No. 4, January 1957.

[^6]:    ${ }^{23}$ Seymour Martin Lipset, "Social Mobility and Urbanization," Rural Sociology XX (September-December, 1955), pp. 220-28.

[^7]:    ${ }^{24}$ Carter V. Good, A. S. Barr, and Douglas E. Scates, The Methodology of Educational Research, New York: D. AppletonCentury Company, 1941, pp. 338-39.

[^8]:    $31_{\text {Kenneth H. Hoover and Helen K. Micka, "Student-Parent }}$ Interest Comparisons in Counseling High School Students," The Personnel and Guidance Journal. Volume XXXIV, Number 5, January, 1956, pp. 292-94.

