Occupational Choices and Expectations of Adolescent Female Students

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Western Michigan University

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OCCUPATIONAL CHOICES AND EXPECTATIONS
OF ADOLESCENT FEMALE STUDENTS

by

Ruby Quaak

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment
of the
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Ruby Quaak
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CHAPTER I

INTRODUCTION AND STATEMENT OF THE PROBLEM

The purpose of this thesis is to determine the extent to which female students desire high prestige and high paying jobs, and to what extent they expect to get the jobs desired. The study focuses on sixth, eighth, and eleventh grade students.

Inequality in the distribution of jobs and pay between men and women has existed for years. These inequalities have often been accepted as right and "natural," but in the past decade there has been a concerted effort by many groups, including women's groups, to provide for equal occupational opportunities and remunerations. More and more women are combining marriage and career. However, little research has been done on the ways in which females choose occupations or develop their career aspirations. Most of the literature in career aspirations and occupational choices focuses on the male. In many cases women were eliminated from the studies so as not to contaminate the data. (See: Reiss 1961; Opinion News 1947).

Females are losing ground in the battle for equal occupational status and the average pay difference is increasing when compared to males. According to articles in Time (1973) and Newsweek (1973)
magazines, there is an over representation of women in low status occupations and an under representation in professional and managerial occupations. According to the U.S. Department of Labor (1972), women who work at full time jobs receive on the average only $3.00 for every $5.00 earned by similarly employed men. While this ratio varies slightly from year to year, the gap was greater in 1970 with women's median wage 59 percent of men's, as compared to 1955 with the median wage of women at 64 percent of men's earnings. While sex discrimination may explain some of the occupational differences for men and women, the situation is quite complex. The small proportion of women in some fields, such as engineering, may be a result of a lack of interest or willingness on the part of women to prepare for the given occupation. It may also reflect the sharing by women of a cultural definition of occupations appropriate for a female.

According to Theodore (1971) cultural values determine appropriate roles for females including which occupations should be selected and practiced. Although females do better academically in school than males, high academic achievement is not followed by a record of high achievement in business, industry or the professions. Career choices for females are less influenced by intellectual ability and academic achievement than they are for males. Females usually wait for signals (approval or disapproval; encouragement or
discouragement) from significant others before choosing a career. (Theodore 1971) Education for women beyond a bachelors degree is seen by them and their family and peers as a calculated risk. Practically speaking, according to Theodore there is some doubt that further training and experience will lead to a professional practice worthy of the time and money expended. The deeper involvement in courtship during the college years contributes to the recognition of the realities of marriage and family that make the serious pursuit of the career a questionable process.

Female socialization may in part explain the reason why females are employed in some occupations and not in others. Sex role socialization is started at birth and is carried on throughout life. For example, the female child is supplied such toys as dolls, dishes, small appliances, cradles and the home making tools. These supply the necessary aids to act out the traditional mother/wife role. Boys are supplied with trucks, trains, building sets, chemistry sets, balls and bats with which to play. Some of these toys are useful in developing muscle coordination and strength, while others are useful in building and creating things. Girls are encouraged to look pretty, stay clean and act like mommy. Boys are expected to be tough, not sissy, be a man and to act like daddy. If the birth rates remain low in the future, the average girl probably will spend more time as an apprentice mother playing
with dolls than she will taking care of her own babies as an adult.

There is nothing intrinsically feminine about typing or teaching grade school or masculine in medicine, law, investment counseling or just thinking. However, according to Horner (1972:157), "The prevalent image of women found throughout history... has with few exceptions converged on the idea that femininity and individual achievements which reflect intellectual competence or leadership potential are desirable but mutually exclusive goals." Feminine stereotypical behavior includes such characteristics as passivity, dependence, following rather than leading, home orientation and possession of traits necessary for nurturing children. The characteristics attributed to the stereotypical masculine rule include aggressiveness, leadership ability, independence dominance, logical thinking and competitiveness. A female displaying the masculine characteristics to achieve success in a profession may risk being defined by society as less able to be successful in the more traditional role as wife and mother. However, the more successful a male is in the work world the more attractive he is as a spouse and father.

Traditionally the female role has been defined as primarily that of wife and mother. Historically women have always worked, but only in the past few decades has the occupational role been distinctly separated from the family unit. Females encounter
difficulty entering certain occupations because many occupations are culturally defined as belonging to males only. Females as well as males accept their position in society and their place in the work world, and as a result may only infrequently be found in male occupations.

Girls as well as boys start preparing for many occupational roles in high school. Choices are made in school that can influence the availability or opportunities in later life. For example, a college preparatory course may enhance one's ability to enter college, or foundation work in mathematics may be helpful for an engineering career. Although changes can be made, necessary changes may be more difficult as time goes by. Extra work may compensate for deficiencies, but other demands may make this difficult or impossible.

Entry into many high prestige occupations, for example, doctor, lawyer, dentist, etc., require special training which is expected to begin in high school. Other better paying occupations require experience which may entail an apprenticeship type of training or working up through the ranks which also requires career planning. Unless females start during or soon after high school preparing for these occupations they are unlikely to achieve as high a level in the same general occupational categories as males who have an earlier start. If females are to change the sex distribution
of jobs, they will need to perceive an occupational structure in which they can obtain jobs, aspire to particular occupations or careers, and gain the necessary preparation to enter the field.

Future occupations are salient interests of both boys and girls of school age. Teachers, peers, family and friends ask children what they will do when they "grow up." Consideration, though perhaps not realistic planning, begins early, probably even pre-school. Many crucial curricular decisions must be made in junior high and high school for maximization of alternatives. Though reversible, in many cases these decisions will have lifelong importance. In terms of decision making importance within the school, three grades have been chosen: sixth, eighth, and eleventh. The sixth grade is the last elementary grade. At the end of this grade decisions about junior high curricular choices will be made by and for the students. These decisions, which have logical consequences, will affect further curricular and, possibly, occupational alternatives. The eighth grade is the grade preceding entry into "high school" curricular course line. It also represents a turning point in the kinds of choices to be made. The eleventh grade is the last point in a regular high school course in which earlier choices can be changed or rectified.

Students may or may not consider these grades as crucial. They are, however, in terms of the structure of the school
organization and it is for this reason that they were chosen.

A comparison of female and male students' occupational choices is made in order to locate differences which may help account for the apparent differences in the sexual distribution of the occupational structure in the larger society. The objective of this study, therefore, is to determine whether the desired and expected occupational choices of female students differ from those of male students at the same grade level and to what extent these choices vary among the three grade levels. The influence of a working mother as a role model on the choices of the female students will also be examined.

Questions to be explored by this study include:

1. To what extent do girls desire and expect to obtain jobs that are of high prestige and high pay?

2. Do their occupational choices differ from the choices made by boys in the same grade level?

3. Do the occupational choices of female students differ at different grade levels?

4. Does a working mother as role model make a difference in the choice of occupations made by the daughter?

The following operations are to be carried out in this research to test the hypothesis and answer the questions posited above. In Chapter II pertinent literature including the historical perspective of
women and work, previous research on adolescent girls concerning occupational choices, sex role socialization, and the theoretical perspective will be discussed. The sample selection, the survey instrument, the measurement scale, coding, and the statistical methods for analyzing the data and testing the hypotheses will be discussed in Chapter III. In Chapter IV the findings of this research will be described. A summary of the research and discussion of the findings, limitations of the research, and suggestions for further research will be found in Chapter V.
CHAPTER II

LITERATURE AND THEORY

Introduction

In this chapter pertinent literature will be reviewed and a theoretical basis developed for investigating the occupational choices of females in the sixth, eighth and eleventh grades. Distribution of females in the occupational structure is different than that of males. To provide background for the current occupational distribution, the first section of this chapter deals with the participation of females in the labor force during the past century. Many changes have occurred which are reflected in the current definition of women's place in the occupational structure. There are also many traditional attitudes and practices that limit participation.

In previous studies female students in high school have been shown to indicate occupational choices which differ from male choices in the same grade or same sample. Although most research focusing of career or occupational choices is done using only male respondents, this chapter reviews only those studies which emphasize the female or the differences between males and females.

The socialization processes prepare females for a subordinate role in society which diminish the likelihood of their choosing
and preparing for particular occupations. Representative material focusing on the differences in socialization of males and females is reviewed. The cultural definitions of sex appropriate behavior combined with the tradition of assigning occupational positions according to sex will affect the occupational choices of students.

The Historical Perspective

The division of labor as defined by a society specifies not only the tasks to be accomplished within that society, but also the appropriate categories of people to carry out these tasks. Most societies specify, therefore, among other categories, the appropriate sex categories for fulfilling certain tasks. (Durkheim 1964; Linton 1945) Translation of the basic division of labor into occupational structure typically has led to the definition of certain occupations as more or less exclusively appropriate for males and females.

Changes in the United States occupational structure during the past century and the increase of females in the labor force have not resulted in the sexual desegregation of various occupations. Rather, women are still disproportionately employed in occupations that have been or have come to be held by females. Nursing has traditionally been a woman's occupation; clerical and sales work have changed from predominately male to female; new occupations such as keypunch operator have emerged as female. On the whole, however, little has been changed in the over-all sex segregation of the
occupational structure. (Oppenheimer 1973; Gross 1968)

One factor contributing to the sex distribution of employment lies in the tradition that females fulfill those occupational roles which have characteristics similar to their traditional familial roles related to the care of the home and children. According to Parsons (1942: 609), "The woman's fundamental status is that of her husband's wife, the mother of his children, and traditionally the person responsible for a complex of activities in connection with the management of the household, care of the children, etc." In the case where the woman does regard her major roles or her future roles as those of wife and mother, this should be reflected in her attitude toward her occupational plans. If the wife-mother role is most important to her then she probably will not select an occupational role that would be seen in conflict with her major role.

When the society was predominantly rural agricultural, wives and children were part of the basic production unit. All members of the family typically worked together to produce whatever the family consumed. The farm was the last stronghold of the family as a production unit. Today, with the majority of the society being urban, work is commonly defined as paid employment and the consumption unit is no longer synonymous with the production unit.

During the 19th century, with growing urbanization and industrialization men began moving into industry in greater numbers. By
1890, only two-fifths of the men still worked on farms. Wives, for the most part, stayed at home. Some married women did work for money, but this work was home-based, for example, selling excess food and produce, doing laundry for people outside the immediate family, taking in boarders, and sewing.

By the end of the 19th century, however, increasing numbers of women were hired by business and industry. Rarely were men and women employed to perform the same work, however. According to Smuts (1959), a woman hired as a sales clerk was usually found in the bargain basement selling low priced items, or in departments selling clothing and accessories for women. Smuts implies that men have "better" sales jobs. Even in those areas where all the employees were female, the supervisor was male. However, domestic service was the largest occupation pursued by women who worked outside the family unit. (Chafe 1972)

In the 1890's, the average female employee was single and under 25. She worked on the average of six to eight years, then left her job to be married, and, it was assumed, to be supported by her husband. Most of these employed women were from lower class, minority or immigrant groups. These women worked because of economic necessity.

With the population of the cities nearly doubling between 1880 and 1920, the new mass production industries had a cheap labor
source. During this time there was a substantial upsurge in the number of women employed. The growing demands for labor for the new consumer products, namely food, clothing and other things formerly produced at home, coincided with the mass influx of European and Southern European migrants. From 1900 to 1910, the proportion of all women who held jobs jumped from 20.4 percent to 25.2 percent. Then this proportion remained almost constant, falling to 23.3 percent in 1920, rising slightly to 24.3 percent in 1930, and up again to 25.7 percent in 1940. Although the total number of employed females increased by slightly more than two million during the 1920's, this growth was reflective of the growth rate of the population and the economy rather than a radical change in women's proportionate economic activity. (Chafe 1972)

While it is often believed that the World Wars and the Depression altered the economic role of women this is not necessarily substantiated by the statistics. The proportion of women in the labor force had reached a stable point before the passage of the Nineteenth Amendment and World War I. Women were employed in large numbers during World War I in jobs previously held by men, for example, in iron and steel industries, as streetcar conductors, bricklayer helpers, and elevator operators. Female lawyers were appointed to the government's legal advisory committees and for the first time female doctors gained access to the United States Public
Health Service. However, only five percent of the female war workers joined the labor force for the first time during the war years; the remainder had transferred from other lower-paying jobs and were expected to return to those jobs after the emergency conditions had passed. Despite the need for women in industry, the Federal Board for Vocational Education only provided training for women in traditional female occupations such as dressmaking. Only nine percent of the women replacing men workers in New York received the equal pay to which the Labor Board said they were entitled. (Chafe 1972)

Whatever gains might have been realized were short lived. In 1919, the Central Federated Union of New York said: "The same patriotism which induced women to enter industry during the war should induce them to vacate their positions after the war." (Chafe 1972: 53) Male employees went on strike to force the women out of the "men's" jobs. The federal government continued to discriminate in its hiring and pay practices despite its formal commitment to non-discrimination. A Women's Bureau study in 1919 showed that females were excluded from 60 percent of all civil service exams. (Chafe 1972)

There were, however, important changes in the type of work performed by women. Prior to the turn of the century almost all employed females worked as domestics, farm laborers, unskilled factory operatives and teachers. By 1940, white-collar work,
especially clerical, had emerged as an important area of employment. Stenography and typing had moved from the eighth largest occupational category in 1910 to the third largest in 1930. The increase in the number of white-collar jobs gave opportunities for employment to middle and upper class girls who had previously been unable to find positions consistent with their social status. (Chafe 1972)

White-collar clerical jobs, then, were class appropriate whether or not they were educationally appropriate.

Important changes in age and marital status of employed females also took place. From 1900 to 1940, the median age of women working increased to over 30 years. In 1900, only 5.6 percent of the nation's wives worked outside the home. This proportion climbed to 10.7 percent by 1910, 11.7 percent in 1930, and then up to 15.2 percent in 1940. The increase in the numbers of married females seems to have had little to do with their perception of personal freedom to pursue a life outside the home. According to Chafe (1972), the biggest jump occurred during the depression for financial reasons. Most of the jobs women occupied were menial types with 36 percent of the married women working as domestics or in personal service. Most of the married women who worked during the depression were black or foreign born.

By the end of the 1930's the Depression had brought a wave of reaction against any change in woman's traditional roles. Laws
were enacted restricting the employment of married women. Labor, government and the mass media joined efforts to discourage women from taking jobs. The majority of the population including women showed little interest in modifying the existing distribution of sex-appropriate roles. (Chafe 1972)

With World War II, the demands for new workers increased, wages jumped upward, and the unionization of women grew. More importantly, public attitudes seemed to have changed with the government and the mass media encouraging women to enter the labor market. At first, employers were reluctant to hire women to do "men's" work; however, with the attack on Pearl Harbor and the dwindling number of male workers, there was increased demand for women employees. Women responded to the crisis with an unprecedented display of skill, with the greatest change taking place in those areas of the country where defense industries were concentrated. Women functioned to most's satisfaction and more and more females were treated as equals by the male coworkers on the job. Perhaps the most important but unintended consequence was that already-employed women experienced their first occupational mobility. Many shifted to better paying and more highly skilled jobs. (Chafe 1972)

Although great strides appear to have been made toward economic equality, at the end of World War II a substantial number of citizens believed that working women should return to the home.
Public opinion surveys indicated that most Americans, men and women, believed in perpetuating a sharp division of labor by the sexes. Men were expected to support a family and the woman to take care of the home. However, many employed women preferred to remain employed. Even though many were laid off with the lessening of defense demands, within two years they had regained most of the losses suffered immediately following the war. (Chafe 1972)

In industry, women's place has remained relatively unchanged with the largest proportion found in the manufacture of light, non-durable goods. Their work is much the same today as it was in 1890, consisting of making or assembling small parts, packaging, labeling, inspecting or machine tending. Few have supervisory or highly skilled jobs. For the most part there is still sex bias in the assigning of jobs, with the best ones according to Smuts (1959) reserved for men.

Historically there have been relatively few females who have gained prominence in any field. Even in those areas dominated by women, men have occupied the highest-ranking positions, so that in the clothing industry women are seamstresses, men are the designers; women usually do the cooking, but men become chefs. (Tyler 1965)

Wife and mother were seen as a woman's primary role and this is true today. Although some women were professionals, the
professional role was usually seen as mutually exclusive with the roles of wife and mother. With increased participation in business and industry the definition of the primary role of the female did not change. Both society and individuals saw females as a less important and less stable element in the labor force.

The history of women in the labor force explicates the background of the cultural and historical forces operating at the present time with which women must deal. It may be tempting to describe historical phenomena from a present day perspective and say that increased employment of women is a step toward economic equality. However, at the turn of the century the rapid expansion in numbers of women employed by business and industry included mostly poor women who worked because of economic necessity. With the release of women from the rural production unit came no mass migration of women from home to industry, nor was there a significant change in the definition of appropriate jobs for the women who did work. The present structure of the sex distribution of occupations is the result of cultural tradition. A few changes have been made which reflect many years of effort by individuals and groups working for a more equitable distribution of jobs, wages and opportunity. Girls who have not yet reached the point of making the decision to enter the labor force are affected both by tradition about women and the effort being made for change. The definitions of the place of women
in society will be reflected in their perceptions of opportunities that are available for them.

Summary of Historical Perspective

The picture of employment for women has changed in the past century. Prior to 1900 an employed female was usually single, under 25 and worked because of financial need. She was most often employed as a domestic, farm labor or unskilled factory operative. Today the proportion of women employed has increased; all ages are included in the labor force; the woman worker may be married or single; and, while many still work because of need, some work because they want to be employed.

The attitudes of much of the society still define woman's primary role as that of wife and mother. Areas of employment are still sex-segregated with society defining which occupations are appropriate for women. There have been times when women have been called upon to fill "men's" jobs, namely during the World Wars. However, at the end of both wars women were expected to give up those jobs and return to the home.

Economic necessity of the society, not the individual, has determined the extent to which women as a category have been incorporated into the occupational structure. Those women who were employed at the end of the 19th century were usually poor, minority women or immigrants who worked because of need in any
job available. When men were not available during the wars women were recruited to fill those positions. During the Depression when more men were unable to find work to support their families more married women entered the labor market; however, there were strong sentiments and regulations against two breadwinners in one family. The end of World War II brought another demand that women return to their homes and give up their employment. The attitude toward working women began to change only when inflation hit almost everyone and the working wife was defined as adding to the quality of family life, and economic need of the family included the quest for a better life. It is significant, however, that women still went to work because of financial need.

**Literature Review**

**Introduction**

In 1940, 29 percent of all women over 16 years of age were employed. This proportion has grown continuously until in 1970 41 percent of all females were employed. The increase in the number of married women, who comprise almost three-fifths of all full time employed females, has contributed most to the growth. (Theodore 1971) In 1971, 42.3 percent of all females over 16 were employed with the group having the smallest representation being that of 16-17 year olds, with 34 percent. The group ranging in age
from 20 to 24 had 57.1 percent employed and in the age range 25 to 34, 45.5 percent were employed. (U.S. Department of Labor 1972)

Despite the growth in female employees, women are found most often in the low prestige, low paying occupations, and least often in high prestige, high income occupations. The proportion of females at the professional and semi-professional levels has declined. Women are holding only 40 percent of the technical jobs in 1970, whereas they held 45 percent of the technical jobs in 1940. Only 10 percent of the professional workers were women in 1970, as compared to 12 percent in 1900. (Theodore 1971) Although the proportion of bachelor's degrees granted to women remains the same as in 1940, and in the 1960's (roughly 40 percent), masters' degrees granted to women declined from 40 percent to 35 percent during that time period, and doctoral degrees from 15 percent to about 12 percent. However, the number of masters and doctoral degrees has increased slightly for both males and females since 1960. (Ferriss 1971) Females have, however, made very little inroad into such male strongholds as medicine, law and engineering. (See Table 2.1)

Sex role socialization provides the basic training in cultural attitudes and assumptions undergirding the occupational participation of women. Though this study focuses on girls in the sixth, eighth, and eleventh grades, children by the sixth grade have already been trained in sex-appropriate behaviors and expectations. Thus, we
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*In the 1970 census the categories of physicists and astronomers are combined.
will consider the socialization process as it apparently affects occupational choices and expectations.

**Previous Research**

Little research has been done on occupational aspirations or occupational choices of the adolescent female. Since it is usually assumed that a male takes his status and identity from his occupation, but the female role is traditionally seen as wife and/or mother and it is assumed that she takes the status of her husband, little emphasis has been placed on the occupational choices of females. (Acker 1973)

Employment for females is most often considered in terms of providing supplemental family income. Work for women is often seen as temporary, it is something to do until a female marries or bears children. After marriage the importance of work depends on a combination of circumstances including the presence and ages of children, attitude of the husband, financial situation and the extent of her skill and availability of appropriate work. (Theodore 1971)

Richard M. Stephenson (1957) studied 1000 ninth-grade male and female students in four New Jersey communities. Desired and expected occupations were categorized according to the Alba Edwards occupational scale. Females tended to cluster in the categories of professionals, and clerical and kindred workers. Although 70 percent of the females aspired to professional occupations, only 33 percent actually planned for a professional occupation. In the
category "clerical and kindred" occupations 22 percent of the girls aspired to these occupations with 59 percent planning for them. More than half (57%) of the boys aspired to professional occupations with 33 percent who planned for the occupations. However, the remainder were more evenly distributed across the ranks. The next highest ranking category for aspirations of males is "owners, managers and officials" with 17 percent, with 16 percent planning for these occupations. For females, nurse, teacher, and secretary are the occupations most often planned for and aspired to.

Edlefsen and Crowe (1960), studying all students in four school districts, report that boys increasingly prefer higher status jobs as their education increases. The reverse was true for girls. Occupational preferences were classified either white or blue collar, with white collar jobs being further divided into high and middle status positions. The lumping together into two large categories obscures the types of occupations desired. The preferred occupations could all fall in the lowest part of the higher or middle range of occupations.

The preference among girls for the role of housewife increases from the seventh to the twelfth grade, but it is not apparent whether the category of housewife is seen as exclusive of other occupations. Seventh and eighth grade girls prefer high and middle status occupations and least preferred the occupation of housewife.

The classification of housewife is difficult to deal with in surveys.
of female career or occupational choices. In the literature it is
usually unclear whether it is an exclusive category. Questions about
the nature of occupations desired may try to exclude the category of
housewife and in the process obscure the true aspiration of the female
involved.

A study by Wallace and Leonard (1971) of 6200 high school girls
in Louisiana showed a highly significant relationship between high
school girls' educational aspirations and expectation levels, and
occupational aspiration and expectation levels. Most girls had made
their occupational and educational choices by the time they were in the
eleventh grade with more choices being made in the ninth grade that at
any other grade level.

The findings by Edlefsen and Crowe would seem to be in agree-
ment with a study by Richard Mowsesian (1972) of 436 female students
in the ninth, tenth, eleventh, and twelfth grades in a high school in
Texas. It was found that regardless of plans following high school
no female chose an unskilled occupation according to a crude classifi-
cation as indicated in the Dictionary of Occupational Titles. Ninth
and tenth graders tend to choose professional and semi-professional
occupations; eleventh and twelfth graders tend to distribute occupa-
tional choices across all classifications and show decreased interest
in four-year college and an increase in preference for two-year
schools. The conclusions reached by the author indicate that girls
recognize and aspire to post-high school educational experience before entering the work world, although the older they are the lower the educational aspirations. It was indicated that perhaps they choose more "realistic" occupations as they get older. (Mowsesian 1972)

This study does not indicate what types of jobs the girls actually chose, nor what was meant by more "realistic" orientation. The implication is that lower aspirations for education and occupation are more realistic for girls. It would be interesting to know to what extent the girls differed from boys in the same development period.

Studies have been conducted using college students or those already finished with college as a sample, often looking at a particular occupation. Examples of these kinds of studies include a study of females in engineering (Robin 1969), the female clergy (Jones and Taylor 1971), and the female physician in public health (Kosa and Coker 1965). These studies are limited to small segments of the population of potentially employed females. Since occupational preparation begins long before both males and females reach college, research at the high school level and lower may provide a broader perspective of the process of occupational choices.

**Summary of Research**

The studies investigating adolescent female occupational choices or career aspirations indicate that there is some difference in the choices they make as compared to those choices made by the males in
the studies. Females appear to aspire to occupations essentially defined as traditional female occupations. Females make occupational and educational plans in high school but older girls have lower aspirations than younger girls.

The classification systems used in these studies may obscure further differences since they are not sensitive enough to discriminate among a large range of occupations. Both medical doctor and elementary teacher are considered professional and white collar jobs, although the occupations differ greatly in income and prestige.

Sex Role Socialization

Introduction

There are many theoretical approaches to the socialization process. It is evident that most people are socialized to behave in socially acceptable ways. The norms, rules and values are passed on in such a way that people learn to respond appropriately to the expectations of others. There is controversy over this point, however, with some believing there is and others that there is not a biological basis for the differences in behavior of the sexes. There is no conclusive evidence for solving this dilemma. This section of the study considers socialization to appropriate sex-role behavior.

Socialization to Sex Roles

Studies have been made concerning sex-role socialization of
infancy and early childhood. (Joffee 1971; Kagan 1964) Children are
treated differently by sex starting at birth. (Lynn 1971) Differences
in expectations are reinforced by family, friends, strangers, schools
and in institutional and social settings. Mussen (1969) states that
while boys show earlier and sharper awareness of sex appropriate
behavior and interests, girls are somewhat more variable and less
clear cut. Most girls eventually do adopt behaviors which are con­
gruent with feminine expected behaviors, but many girls between
ages three and ten show rather strong preference for masculine games
and activities. Very few boys at this age, however, prefer feminine
activities. Kagan and Moss (1962) assert that the tendency to act in
sex-appropriate ways is highly stable from early childhood.

Lynn (1971) says that young children of both sexes are generally
socialized by the mother. Girls have the same sex role model avail­
able more hours per day than boys have the masculine role model
available. Much of the socialization of appropriate masculine is the
responsibility of female teachers and mothers. This is often done
by admonishment or punishment to extinguish girl-like behavior.
Since girl-like activities are punished, Lynn postulates that boys
should develop a dislike or hostility for girl-like activities and this
may generalize to a hostility toward females. There is less pressure
for girls to avoid masculine activities, nor are they punished as early
or as severely.
Girls generally have the same sex role model available to them as do boys. The roles to which girls are most exposed by the role model are those of housewife and mother. Even if the mother is also employed outside the home, the roles of wife and mother are the most visible.

Studies have been made of children's choices of toys. Girls will often choose boys' toys, however, boys usually do not choose toys designated typically as girls' toys. (Hartup and Zook 1960; Brown 1957) Similarly when asked about sex preference, a much larger percentage of girls preferred to be male than boys preferred to be female. Lynn (1971) also postulates that as girls grow older they become disenchanted with the female role because of prejudices against their sex and the privileges and prestige offered the male and therefore show a preference for the male role.

In a study by Komarovsky (1950), college girls reported that there was differential training in the parental home of the sexes. Boys were more quickly pushed out of the nest to get a job and allowed more freedom earlier to play away from home or go to a movie. On the other hand, they reported that there was much closer supervision of girls and a lesser degree of freedom. Girls were encouraged to take jobs or go to colleges near their parental home. Daughters were expected to hold more to kinship obligations like
running errands and more often subjected to pressure to attend family gatherings.

According to Horner (1970), the role of the female in American society has been little understood and much ignored by psychologists. While the educational system in theory formally prepares both sexes for identical careers, social and psychological pressures really limit the occupational choices of women as compared to men.

There is some doubt that schools are as equalitarian as indicated by Horner. Since schools reflect attitudes of the larger social system which brings pressure, both explicit and implicit, to encourage appropriate sex-typed behavior, it seems unlikely that the educational system really prepares both sexes for similar careers. Although girls may be found in some classes previously considered strictly in the male domain (for example, shop), they will probably be the exception rather than the general rule. Girls do take girls’ shop classes, but often such classes are abbreviated or a separate modified version of the male shop class. A girl enrolled in a regular class of boys may be treated differently than the other (male) class members. Typing classes are likely to be predominantly female, while shop and drafting classes are usually predominantly male. Although theoretically education is seen as the same for both sexes, it may differ both in quality and in meaning.

A study of children's school readers by the organization...
Women on Words and Images (1972) looked at the treatment of females, both adult and children. Out of 2760 stories surveyed, 1152 featured males, 413 featured females and 390 featured boys and girls.  

Although these readers are found to be lacking in many areas pertaining to a realistic picture of life, the focus of the study was how life is presented to females. The female is most often shown in the traditional role of mother. In these books girls are not shown excelling in school work, something they actually do better than boys. Girls remain passive; they watch the boys, who are the "doers."  

Men are shown in a total of 147 different occupations. Women hold 26 different occupations including one doctor. However, women are usually presented exclusively as job holders or mothers, but rarely both. Jobs shown for females are overwhelmingly the lower prestige and lower paying occupations like cafeteria worker, cashier, dressmaker, secretary, along with the traditional teacher, nurse and librarian models. Girls in the readers rehearse the domestic routine of cooking and cleaning. The room most frequently illustrated is the kitchen. The authors state that boys are considered to be demeaned by association with girls. This type of textbook material may further reinforce the feminine role as subordinate and passive.  

It is assumed that school systems assigning these types of texts are

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1The remainder are animal stories, science stories, etc.
giving approval for the sex roles portrayed by these readers.

Thomas and Stewart (1971) studied high school counselors' responses to females with deviate or conforming career goals. Deviate careers are those usually identified as traditionally masculine careers, while conforming careers are traditionally feminine. Findings revealed that conforming career goals for female students were perceived by counselors as being more appropriate than deviate career goals. Those girls indicating a deviate career goal were perceived by counselors to have significantly greater need for further counseling that those with conforming career goals.

According to Tyler (1965) girls may be more successful in school for a number of reasons. Docility and submissiveness, considered female traits, may make a better impression on teachers, and thus be reflected in grades. There may be differences in special aptitudes, for example, girls consistently would not be continuous with assuming positions of leadership in business or world affairs. Thus females may be inappropriately encouraged and rewarded by teachers at least in terms of those characteristics most desired in high quality labor force participation.

Horner (1970) also indicates that although this society is achievement oriented and stresses individual freedom and self-realization, females who do pursue occupations that are not traditionally defined as appropriate female occupations feel anxious, guilty,
unfeminine and selfish. Further, the values projected in most middle class homes view femininity and individual achievement as two desirable but mutually exclusive ends.

Women today make up a smaller proportion of college graduates than 30 years ago even though the number is increasing. Horner (1970) attributes the decline to the "motive to avoid success." This motivation receives its impetus from expectations held by women that success achievement will bring negative consequences including social rejection and the sense of losing one's femininity. The most threatening situation is competition between a male and female because the expectation that females will play subordinate roles is held in general by most of the society and what may be most feared by an achieving woman is social rejection by both males and females. Femininity is determined by consensus of the society of what is considered appropriate behavior for a female. While doors are open legally to females, society teaches them to fail to achieve outside the home. According to Horner, nobody objects to a woman being educated as long as the objective is to make her a better wife and companion, but pressure is against the woman whose objective is personal achievement or a career.

Empirical evidence from Horner's study in which females were given the verbal cue that, "After first-term finals, Anne finds herself at the top of her medical school class," indicate that the reaction most frequently displayed was fear of social rejection. The second largest
category included explanations of denial of the possibility of the cue. Over-all the most prevalent themes were of "Anne's" unattractiveness and her lonely Saturday nights. (Horner 1970)

Alper (1974) criticizes Horner's method and reveals contradictory findings. According to Alper, in a sample of undergraduates tested in academic year 1970-1971 using the same stimulus, females still showed a high proportion of avoidance stories. However, when the occupation was omitted and the stimulus was changed to "After first-term finals, Anne finds herself at the top of her class," there was a significant drop in the avoidance stories. By dividing the samples into traditional and non-traditional role-oriented women, those scoring more traditionally role-oriented relate stories of instrumental success (the achievement is instrumental to the gratification of a need other than achievement); woman as man's helper; and women have to work harder to achieve than men. On the other hand those less traditionally role-oriented tell success stories including the themes that hard work pays off, support of an achieving model, achievement through cooperative effort, and achievement facilitated by rivalry or competition.

Alper's study goes beyond Horner's. Horner focuses on situations where achievement exemplified by success in a predominantly male occupation is threatening to the female. Alper's study, using the stimulus of being top of the class, would invoke less avoidance because it is a less threatening situation. Women are more likely to
be threatened by success following academic success, or success in those occupations traditionally male. It has been shown that females do enjoy academic success.

In another study of college girls, Komarovsky (1946) pointed out that female role strain is caused by incompatible roles imposed on college women. The inconsistencies arise from family and boy friends, between personality and cultural demands. On the one hand they are expected to fulfill the feminine role described variously as the glamour girl, young lady, home girl with a common core of attitudes to men, family, work and love with a set of personality traits often described with reference to the male sex role of dominant or aggressive. On the other hand she says there are demands to fulfill a modern role which obliterates sex differences and demands of women the same virtues as man in the way of patterns of behavior and attitudes. Those responding to the study tell of a variety of incidents where they played down their intelligence to be acceptable as a female or a girl friend.

Summary of Sex Role Socialization

Sex role socialization is a process that starts at birth. Appropriate sex role behavior is learned in the same way as other social behavior. Early socialization of both sexes is usually by the mother but from birth boys and girls are treated differently.
Girls have continuous socialization from the same sex role model. Since there is no need to change role models there is less ambiguity. Inappropriate sex role behavior is tolerated at an early age, however girls are given less freedom as they grow older. Girls are kept nearer home and are expected to be more involved with the family than boys. They are socialized to be less independent, more passive, sweet, pretty and lady-like.

Boys, on the other hand, are first socialized by mother, but later must shift their sex role model. Socialization often is performed by females, who emphasize the extinguishing of girl-like behavior, often through the use of punishment or admonishment. At a fairly early age inappropriate sex role behavior is punished, and it is suggested that this punishment may possibly lead to a hostility toward females by boys. Boys are given more and earlier freedom from the home than girls. They are encouraged to get jobs, go away to college, and be independent.

Females may at an early age prefer masculine toys and games, but pressure by family and society will tend to discourage independence in pursuit of personal goals characteristic of commitment to a career, particularly a non-traditional career. As a result, girls are likely to feel that aggressive or competitive behavior is less feminine, or friends and family may try to pressure females into more appropriate sex role behavior. Femininity and success as a wife
and mother are often defined as exclusive of a successful professional career.

Theoretical Perspective

Introduction

Proportionate representation of women may be absent in some segments of the occupational structure because of women's early socialization and their identification with the subordinate subculture of females. Today's women still focus on the wife-mother roles. (Bell 1967)

According to Alice Rossi (1964), young women seem increasingly uncommitted to anything but early marriage. She sees study and preparation for a future job "in case I have to work" as poor preparation. Important as laws and regulations that legally open opportunity for participation are, they can be successful only to the extent that women exercise those rights, or are trained to be qualified for and aspire to the jobs they are now permitted to hold--laws and regulations must permit participation, but women must want and be able to participate.

Sex Role Socialization and Differential Occupation Choice

According to Linton (1945:63), "the division of the society's members into age-sex categories is perhaps the feature of greatest importance for establishing participation of the individual in culture."
In all societies there are particular occupations which are linked to a specific sex. (Shuval 1963) High ranking occupations are often those designated as belonging to males.

One rationale for females being assigned to particular types of occupation is their assumed greater ability to cope with repetitious tasks. One only needs to consider an auto assembly line to realize that males do cope with such tasks. Manual dexterity or fine muscle control in females is also used to justify the assignment to particular jobs. Men have better control over large muscles. In studies of manual dexterity females perform consistently better than males. (Tyler 1965) Differences in muscle control and use may influence and/or be influenced by socialization; for example, sewing sets for girls aid in the development of small muscle control, while balls and bats for boys aid in the development of large muscle control. Whether these activities are deemed appropriate because of muscle-use differentials or that differential muscle control is a function of these types of activities is a question which needs to be answered through further research.

Girls may choose a vocation but it may not be seen by them as a long term commitment in the sense of a career. Preparation may be made for short term or part time occupations. Women enter and leave the labor force. They have a choice of family, work, or a combination of the two. Men on the other hand have a primary role
function as breadwinner. While a wife can assume the status of her 
husband, a man's status is tied to his occupation. (Osipow 1968)

The problem of occupational choice for the female is seen by 
some as the relationship between sex roles and occupational roles. 
(Psathas 1968; Osipow 1968) Decisions about occupations are influenced 
by anticipated or actual plans. For the girl who plans to be married 
soon after high school, work is often viewed as only a short term 
engagement until the marriage or until children are born and there is 
little apparent commitment to the idea of a career. The effect of 
marriage on the boy's career choice was not discussed. It is assumed 
that the meaning for males is different than for females, but this 
difference is not specified.

Even females who are college graduates may not intend to work 
on a full time basis. A study by Fichter (1972) indicated that more 
black female college graduates (40%) than southern white female col-
lege graduates (19%) and other female graduates in America (14%) 
say they realistically intend to combine marriage and child rearing 
with gainful employment. Most white women say they expect to work 
only before they have children and after the children are grown.
Marriage was the principal goal of almost all of the women in the 
sample, and many felt that going on to graduate school would lessen 
their chances of finding a husband.

Educational and occupational attainments of parents also influence
the goals of children, according to Psathas (1968). Although generally children are expected to attain more education than their parents, those parents with less than the median amount of education for their own generation will be satisfied with less education for their daughters than parents who have higher levels of education.

Since the occupational role is considered more important for males than females, families with limited financial resources may be more inclined to educate male children than female children. Girls may opt for a six month secretarial course instead of a longer and more costly college preparation. The shorter training period would also put her on the job market earlier. A girl may also enter marriage as early as possible to escape her family's hardship. (Psathas 1968) These behaviors would also tend to limit her commitment to a career or the preparation for a career.

Occupational choice is also regulated by the knowledge of alternatives and the degree to which these are seen as a viable opportunity. This includes opportunity to meet potential husbands. Occupational choice is probably the result of the interplay of a number of factors, including the general value placed on an occupation, the cost of the occupational preparation, and knowledge of alternatives. A reasonable consideration for women whose prime goal is marriage is the perception of a particular occupation or type of occupation and the preparation for that occupation which may be seen as a hindrance to
the fulfillment of that goal.

Traditionally there has been an emphasis on father-son occupational choices, educational attainment, and mobility. However, DeJong, et al. (1971), show that there is in general no major difference in male and female intergenerational occupational mobility patterns when compared with the father's occupation.

It may be useful to look at the possible influence of a working mother on the girl's occupational choices. It is reasonable to assume that a person's perception may be influenced by the degree of actual role differentiation one experiences in their own family. The mother's employment status would seem to influence the role differentiation in the home. If the father is employed outside the home and the mother is a full time homemaker, their roles are more clearly polarized. However, if the mother is also employed outside the home the difference is less clear and they will be perceived as more similar. The results of the study by Broverman, et al. (1972), show that daughters of employed mothers, as opposed to daughters of full time homemakers, perceive less difference between men and women. Daughters of employed mothers perceived women less negatively on the competency characteristics than the daughters of homemakers. Other studies by Hartley (1964), Riley (1963), and Graham (1970) suggest that mother's employment status and history do influence the daughter's perception of sex role related behavior, increase the likelihood of her
expectation to combine marriage and career, and make her more likely to pursue a career.

**Career Choice**

Children at a very early age are aware of the stratification system and the relationship of occupations to that system. A study of third to twelfth grade children showed no noteworthy differences in the absolute ratings of jobs between the older and younger children. Younger children did rate jobs a little more favorably and were more unlikely to say any job was "poor" or "not very good," but did see some jobs as better than others. While children understand at an early age some jobs are better than others, as they get older they realize how much better. (Simmons 1971)

The understanding that some jobs are better than others does not in itself mean children will strive for the better jobs. They have to perceive the opportunity to get the jobs. When asked whether there existed equal opportunity for everybody, 70 percent of the elementary children who answered the question believed that some people are blocked. But when asked about the perception of their own opportunity, most felt they were not one of those blocked, and 52 percent believed they could get any job they wanted. (Simmons 1971) There was no significant difference between males and females in believing they could get any job they wanted. (Simmons 1973)

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1 Private communication with author

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According to Ginzberg, et al. (Osipow 1968), there are at least four important variables which operate in the process of career choice: 1) the reality factor which causes a person to respond to pressures in his environment which influence his decision regarding vocational choices; 2) education, the amount and kind will facilitate or limit opportunity; 3) emotional factors; 4) individual values. The authors view career choice as an irreversible process, occurring in reasonably well marked periods of compromise between what an individual wishes and the possibilities of attainment. According to Ginzberg, et al., children begin their vocational choice by asking themselves what they are interested in doing and what they would like to do. As they grow older they become more aware that some aspects of occupation are viewed as having more intrinsic or extrinsic value than others. Then, reaching a point of integrating likes and dislikes with the individual's capabilities, tempered by personal values and society's values, the young adult begins to devise ways to implement the still tentative choices.

Ginzberg, et al. (Osipow 1968), identifies periods in the child's life which correspond to the different levels of interest in a vocation. By age 12, the child is beginning to recognize the need to identify a career choice. At this stage both sexes may strongly reflect identification with the father's occupation. Between the ages of 12 and 14 children begin to introduce the notion of ability into their vocational
notions. This is coupled with a decrease in the identification with the occupation of the father. The 15 to 16 year old students undergo a change in their occupational notions which include a humanitarian or service idea. Toward the end of this time they are thinking in terms of day-to-day activity and begin to feel an urgency in their planning. At 17 to 18 the individual begins to face the need for immediate and realistic plans. At this stage they are able to try out some skills. There is a greater awareness of varying financial gains and differing life circumstances of careers. This is also the time of early marriage which may conflict with career preparation.

These ages are viewed as approximate as they will vary in individuals and with life circumstances. However, the progression is thought to be the same even though the time may vary. Some people choose one career early and stay with that choice, while others choose a number of occupational roles before settling on one. Ginzberg, et al. (Osipow 1968), assume that vocational choice processes occur primarily during adolescence.

In another study by Ginzberg, et al. (Osipow 1968), of a small group of college females, the recollection of these girls about the nature of their vocational plans during early development stages, age 11 to 15, corresponded closely to those of boys in the same stage. By the transition stage, age 17 to 18, girls are heavily oriented toward marriage and its implications, while boys are moving toward careers. Focus on marriage for girls begins at about age 17.
Osipow (1973) believes that a major portion of vocational choices occur after the adolescent period and criticizes the Ginzberg, et al., studies because no older people were included in the study—only adolescents and a few young adults. This may not necessarily be detrimental to this study since the focus is on the desired and expected future occupations of adolescents. He also criticizes the concept of irreversibility of the career development process, stating that it is too strongly put. While obviously early decisions and experiences cannot be erased, the direction of vocational process can be diverted.

Osipow also points out the importance of family influences on career choices. The family plays an important part in the determination of situational factors involved in career development, such as educational, economic, social support and the provision of a context for work.

Norton and Kuhlen (1952) compare the development of vocational choice of male and female teachers, and male factory workers. Factory workers said that they were older at the time of their first vocational interests and that they had fewer vocational interests during their development. Half of the female teachers reported a vocational preference by age 8 or 9, half of the male teachers had a vocational interest by age 10 or 11, while factory workers were 13 or 14 years of age before half of them had some vocational interest. While there were other early vocational interests, such as nurse and actress for the females and railroad engineer and professional ball-
player for males, the preference for teaching emerged early in adolescence. Norton and Kuhlen mentioned that teaching was a conventional vocation for females and that it would be of interest to study the development of less conventional occupational interests among females.

This study would seem to support Ginzberg, et al., to the extent that vocational interests and preferences do occur early in life. Both the Norton and Kuhlen and the Ginzberg, et al., studies indicate that preference may shift during the development period. Ginzberg is less specific about what influences vocational choices, but does say that the process is speeded up for lower class males, and that marriage plans or aspirations will affect female choices. Norton and Kuhlen indicate that school and teachers, family, and prolonged association with an occupation influence the particular choice. This may also account for the early preference of teacher. (Osipow 1973; Norton and Kuhlen 1952)

Summary

According to Ginzberg, et al., (Osipow 1968) and Norton and Kuhler (1954) people begin at an early age to show occupational interests and preference. Both males and females have career interests which may include one or more choices during the period of development. It is assumed that with the increased interest in
marriage, career plans become less salient to females since they may in theory choose to marry and not be employed outside the home.

Conclusion

Because of socialization and social structure, females are in a subordinate position in society. This subordinate position is reflected in the valuations of the types of behavior demanded of females, the place of the female as reflected in school books and in the acceptance of the traditional roles by females themselves. With this type of socialization to a subordinate position it would be discontinuous in general for females to plan for and participate in particular occupations which would demand that they take a superordinate position. This discontinuity may explain the low proportion of females in managerial type positions, school administration, as lawyers, doctors, and various other superordinate and high status positions.

While younger girls may have vocational ideas similar to same-age boys, mechanisms applied by the family and schools during adolescence will operate on the sexes differently. Boys are given more freedom in the way of part-time jobs and recreational opportunities; girls are encouraged to stay closer to home and to the family. Boys are expected to have jobs and are thus better able realistically to consider vocational choices. A man largely derives his social status from his occupation and most males expect to have
some type of occupation that takes up a large portion of his adult life. Females on the other hand have a choice between marriage and a career, or a combination of both. As has been shown, this ambiguity may leave the female unprepared to compete successfully in the occupational world.

Females who are seriously considering marriage or who are already married may also be influenced by their husband's or future husband's expectations of a working wife. Those who are working or plan to work after school may see it only as a short term occupation and secondary to the major role of wife and mother. Commitment to a career may be influenced by the husband and various other life circumstances.

The role model of the young female will influence the extent to which she will aspire to a particular role. If the role model fulfills the roles of wife and mother in addition to that of career women, the socialization of the girl will be different than if she has as a role model someone who does not fulfill both roles. Since the mother is most often a girl's role model we should see some relationship between the mother's roles and the anticipated roles of the girl.

In conclusion, girls are socialized from birth to act in sex-appropriate ways. This usually does not include preparation for a life time career, nor a high status occupation. This should be reflected in the kinds of occupational choices made by girls in schools.
for basic education.

Hypotheses

For the purpose of defining the limits of this thesis, this study is
being conducted on the basis of certain generalizations. These gen-
eralizations are based on information drawn from pertinent theoretical
literature and empirical studies of female occupational choices and
theoretical perspective.

Empirical Generalization A.

Occupational choices will be influenced by traditionally accepted
sex-appropriate roles for both males and females.

HYPOTHESIS I. The older the female student the lower in rank
her occupational choice.

II. The older the male student the higher in rank
his occupational choice.

III. The difference between the mean score of
occupational choices will be greater between
older male and female students than between
younger male and female students.

IV. Older female students will choose more tradi-
tionally accepted occupations than the younger
female students.

V. Female students who are married or engaged
will have lower ranked occupational choices than those in the same age group who are not married or engaged.

**Empirical Generalization B.**

Role models will influence occupational choices.

**HYPOTHESIS VI.** Female students whose mothers work will have higher ranked occupational choices than those whose mothers do not work.

**VII.** The higher the mothers' occupational rank the higher the occupational choices of daughters.
CHAPTER III

RESEARCH METHODS

Introduction

The purpose of this chapter is to discuss the research methods used to study the occupational choices of females in the sixth, eighth, and eleventh grades of public school. Included are the selection and characteristics of the sample, construction and procedures used in administering the survey instrument, the method of coding the data, the measurement scale utilized and the methods of statistical analysis adopted for this study.

The data for this study were collected with the cooperation of the Grand Rapids Public School System and the Grand Rapids Public Schools-Western Michigan University Center for Educational Studies in Grand Rapids, Michigan.

Grand Rapids is the second largest city and the second largest public school system in the state of Michigan and is the seat of Kent County government. A wide variety of business, industrial and government jobs are available in the area. In the city and within commuting distance are located several institutions of higher learning.

Sample

The Grand Rapids Public Schools-Western Michigan University
Center for Educational Studies assisted in the selection of the sample used in the study. They provided the necessary information needed to select a purposive sample, clerical services and initial and formal contact with the schools involved, thereby facilitating the data collection process.

Choice of Schools

Schools used in this study were selected on the basis of information provided about the socioeconomic status characteristics of the city and of the school system as well as minority enrollment within the given schools. Schools were selected which would be representative of the larger city population. These schools include a variety of types of neighborhoods. Although an effort was made to obtain a sample representative of the city population on race and socioeconomic status, no such items were included on the questionnaire to identify the student or his or her race. It was observed that there were minority students present when the questionnaires were being administered. However, since some of the questionnaires were not statistically analyzed for some of the hypotheses because of the lack of answers to questions related to occupational choices, it is

1 A representative sampling of schools requires intimate knowledge of the school system, and individual school characteristics. Mr. Emery Freeman, Director of the Grand Rapids Public Schools-Western Michigan University Center for Educational Studies, and long time administrator within the school system, provided consultation for this task.
not possible to verify that the sample is actually representative of
the larger city population with respect to racial distribution charac-
teristic.

There are four high schools located in the Grand Rapids public
school system. The high school chosen was the one which most
closely approximates the population of the city on characteristics
of socioeconomic status and minority enrollment. The area of the city
which supplies students to this school includes both older and newer
suburban neighborhoods, as well as some inner city, lower class
neighborhoods and a small business area. Some of the students are
bused from an area outside the school district to assure racial
balance.

The junior high schools and elementary schools were chosen
from those schools which feed students to the high school selected
for this study. Again an effort was made to choose schools which
would be representative of the characteristics mentioned above.

**Grade Level Selection**

According to Ginzberg, *et al.* (Osipow 1968), as discussed in
Chapter II, girls in the early developmental stage or in the age group
from about 11 to 15 years of age correspond closely to boys in the
same developmental stage in their choices for future occupations.
Females are heavily oriented toward marriage by the age of 17 or
The limitations of this study made it impossible to survey each grade, so one class is taken from each school level, elementary school, junior high school, and high school. Each class was selected at a point where more decisions are made by the students. The grade level is used as an indicator of maturity, rather than chronological age per se. Table 3.1 shows the age distribution of the students. As indicated there is some overlap in the age among the various grade levels. The total sample size is 534.

TABLE 3.1 --Age and grade distribution of the sample

<table>
<thead>
<tr>
<th>Age</th>
<th>6</th>
<th>8</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>12 &amp; under</td>
<td>89 (94)</td>
<td>89 (95)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>13</td>
<td>6 (6)</td>
<td>5 (5)</td>
<td>28 (30)</td>
</tr>
<tr>
<td>14</td>
<td>54 (57)</td>
<td>44 (55)</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>9 (10)</td>
<td>5 (6)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>16</td>
<td>2 (2)</td>
<td></td>
<td>25 (29)</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td>48 (56)</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td>9 (11)</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td>2 (2)</td>
</tr>
<tr>
<td>Totals</td>
<td>95</td>
<td>94</td>
<td>94</td>
</tr>
</tbody>
</table>
Grade 6 includes students as young as 11 years old, corresponding with the developmental stage in which Ginzberg, et al. (Osipow 1968), says occupational choices should be similar for boys and girls. This grade also marks the end of the elementary education. Junior high schools differ from elementary schools in structure of education. Students are given more freedom of choice in subject matter to be studied in junior high school than in the elementary schools. Thus we would anticipate that sixth grade students might have begun to plan, at least indirectly, for preparation for a job or career. All of the sixth grade classes from four elementary schools were included in the study.

The eighth grade is included from the junior high school level, again marking a place where students are making more choices about their education. The ninth grade has even more options opened to the students for elective classes and the credit earned is accumulated for graduation from high school. This age group, say Ginzberg, et al. (Osipow 1968), begins to assess their own ability in relation to career choices. There is also a lessening of identification with the father's occupation which influences younger children. All of the eighth grade students from two junior high schools along with one class from a third school were included to assure the racial balance of the sample.

The eleventh grade was chosen rather than the twelfth because
it is felt that many students in the twelfth grade are already employed or have made college plans. The answers to the questions concerning desired and expected occupational choices would reflect a situation in which they were already involved rather than what they were thinking about doing. While eleventh grade students may also be employed or making college plans, the probability is much lower and eleventh graders still have a year left in which to adjust plans.

Questionnaire

Data for this study were obtained through the distribution of a questionnaire to the students included in the sample. The questionnaire was constructed by modifying one used in a previous study by Dr. Herbert Smith, Associate Professor, Western Michigan University. Background data questions are used in the same form as Dr. Smith had used them. These included questions regarding students' ages, family characteristics, mothers' and fathers' education and occupation, and students education and occupational plans. (Questions 1, 2, 3, 5, 6, 8, 10, 11, 15, 16, 17 and 18; see Appendix A for the entire questionnaire) Specific questions were added to obtain information regarding the future expectations of females in marriage and occupational involvement. (These are questions 19, 20, 21, and 22.) Although the questionnaire was not pretested in its present form, the questions had been, as noted, used successfully in previous studies.
Four questions are included to determine the type of job held by each mother and father of the respondent. (Questions 6, 7, 8, and 9; and questions 11, 12, 13 and 14) Respondents were asked to specify the job title, the kind of work, the place of employment and the nature of the business for each parent. These questions are asked to better distinguish the nature of the job, for example, a retail salesman from a wholesale salesman, or an industrial sewer from a seamstress.

Three questions were included to determine if students were thinking of occupational preferences in terms of a long time commitment or viewed their choice only as a short time employment. Although girls are asked if they wanted a "career," the term career was not defined.

Administration of Questionnaire

The questionnaire was administered to all students during May and June of 1973, during regular class periods. After the questionnaire was distributed verbal instructions were given by the researcher and one assistant. Each class was given as much time as necessary to complete the questionnaire. Students were encouraged to ask questions concerning questions which were unclear to them. All students were urged to complete all questions pertaining to their class level. A total of 534 questionnaires were distributed and all of them were used in the analysis.
No attempt was made to contact those students who were absent. School personnel indicated that absence rates on days of questionnaire administration were normal. Since students were asked not to identify themselves by name on the questionnaire, it was felt that singling out absentees would violate anonymity.

The questionnaire was administered late in the school year so that normally course choices available for the following year for all students were already made. Some decisions in regard to or affecting future careers would have thus probably been made. Eleventh grade students were probably aware of whether their education and grades were adequate for college admission. This awareness may be reflected in the career choices indicated on the questionnaire.

Coding

All close-ended questions were precoded for computer analysis. Questions regarding parents' present occupation and the occupational choices of the students were open ended. Responses were coded by the researcher and one assistant (a graduate student in sociology) with the use of a measurement scale described below. A numerical value was assigned to all occupations.

For occupations missing from the scale, a value was assigned based upon the knowledge of the coders of the occupation. The value

1 Thanks to the Center for Educational Studies personnel

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was reflective of relative education required, income received and similarity to other occupations listed.

When more than one occupation was listed it was assumed that the first one listed was the first choice unless it was clearly indicated as a part-time occupation. The score given to the occupation is based on the first choice. If a general occupation, such as "factory worker," is listed, the numerical value assigned is that of a laborer category. It is assumed that had the respondent desired or expected a more prestigious occupation, for example, that of an inspector, machinist, or supervisor, it would have been indicated. It is further assumed that if any bias is reflected by the response it is in the direction of a more prestigious job since there would be a tendency to increase one's importance or prestige by way of job description or title. Therefore, the value assigned reflects a conservative measure.

The response of occupational choices by females are further coded as "traditional" or "non-traditional." Occupations are classified as traditional if they are more commonly held by women than men, for example, nurse, secretary and teacher. An exception is made if a specific type of teaching is mentioned in which men predominate, for example, shop teacher. Also included in the

1 The Statistical Abstract of 1973 indicates that there are 1,953,000 female and 912,000 male teachers excluding college teachers; 819,000 female nurses; male nurses are not listed but a classification of male health technologists and technicians lists 80,000; and 2,701,000 female secretaries; male secretaries not listed.
traditional category are those occupations that are reflective of the
traditional female role of nurturer or help mate, for example, "taking
care of children," or the specification of "helper" or "assistant" to a particular occupation. All job titles that include a feminine suf-
fix are included in the traditional category, for example, "charwoman," 
"waitress," and "seamstress." Those coded as non-traditional are occupations which are more commonly held by men, or have a mas-
culine suffix. In addition to the categories of traditional and non-tra-
ditional those females who failed to respond or answered "don't 
know" were placed in a separate category. Some answers to these questions were too vague to code numerically, but were recognizable as traditional or non-traditional. An example of this is the response "work with children." These responses are included in this analysis, but were not included in the analysis using the specific occupations.

A problem was incurred in coding question 20, "Under what circumstances do you think it would be all right for a wife to work? Check one." The answers listed are not mutually exclusive. Some respondents checked more than one answer and some checked "other" and then indicated more than one condition. Each possible response was coded "yes" or "no."

The coding was recorded on special sheets from which IBM cards were made. The code sheets were checked against the question-
naires for errors and corrections made.
**Measurement Scale**

A numerical value is assigned to the occupations of the parents and those occupations desired and expected by the respondents, with the use of a scale known as the Duncan Scale. (Reiss 1961, Appendix B) This measurement scale includes categories that reflect those of census data and includes a socioeconomic status score (S.E.S.) as well as a transformed NORC (National Opinion Research Center) prestige rating of occupations, also commonly known as the North-Hatt prestige scale of occupations. The S.E.S. scale is used for the statistical analysis of this study.

The North-Hatt prestige scale has been used frequently by researchers since its publication in 1947. This scale was developed by asking respondents to rate a list of occupations by indicating the "general standing" of the job. They were asked to rate it on a scale from excellent standing to poor standing. However, the North-Hatt scale alone is not satisfactory for this study for several reasons: 1. the occupational ranking scores are available for a limited number of occupations accounting for less than half of the labor force; 2. it was designed to represent a range of occupational prestige and was not intended to include all occupations; and 3. most importantly, it systematically excluded traditional female occupations. (Reiss 1961)

The scales developed by Duncan were based on the occupations
listed in the detailed classification of the \textit{1950 Census of Population}.

The index was designed to: 1. have face validity in terms of its constituent variables; and 2. sufficient predictive efficiency with respect to the North-Hatt ratings so that the Duncan scales can serve as an acceptable substitute for it. (Reiss 1961)

The socioeconomic index reflects a combination of educational and income levels of people engaged in the occupations with an adjustment made for age. According to Duncan there is a relationship between education, income and occupation. Education is preparation for a particular kind of occupation or qualifications for that occupation. The bulk of an individual's income is received as compensation for services rendered in pursuit of a particular occupation; therefore, occupation is the intervening variable between education and income. (Reiss 1961)

Alba Edwards states that the validity of the social-economic grouping can be shown to exist by comparing it with the education requirements and income. He presented income and education data indicating that "the social-economic status of the workers comprising them and that they do constitute a scale." (Edwards 1938)

In the development of the socioeconomic index portion of the Duncan scale the value assigned to income and education of each occupation was determined by the proportion of its incumbents falling toward the upper end of the respective distribution of all males in
the labor force. It was felt that no measure of central tendency would appropriately summarize the data for the problem being considered. The education variable is the percentage who are high school graduates, and the income variable is the percentage making $3500 or more in 1949. The two variables were expressed in roughly comparable percentage-point units. The scale is represented by a two digit number with a range of 00 to 96. (Reiss 1961)

Because the two variables are expressed in percentage-point units which would imply equal intervals on a scale of 100, the values assigned to the occupations listed for the parents and students are assumed to be interval data for the purpose of statistical analysis.

An adjustment in the scale was made for age. According to Reiss, youth are paid less on the average than men in their forties and fifties. Some incomes of still older men drop back from what they were in their peak. Some occupations held by youth are training for later better paying jobs. If all else is equal, two men of a different age in the same occupation would be expected to have different incomes. The adjustment for age was made by weighting the age distribution of each occupation using age-specific education and income patterns respectively as weights. In most cases this adjustment is slight, except for cases with a highly unusual age distribution.

There are limitations to the usefulness and reliability of this
measurement scale. Some occupations in the scale were grouped that actually should reflect a range. The most troublesome for this study was the grouping of typist, stenographer and secretary. Although an adjustment by the researcher may have been justified, none was made since it is felt that probably students were not making fine distinctions in their choices.

Bias is probably introduced in some areas in which ratings are given for female occupations or where a male occupation is grouped with a female occupation, for example, barber and beautician, since values were assigned based only on the male labor force. However, since other scales eliminate female occupations, this scale was chosen as the most useful.

Census categories have been used as a basis for comparison in previous studies. (See Stephensen 1957) This method, however, tends to obscure differences more than the use of the individual occupations listed. The category of professional, technical and kindred include medical doctor, engineer, college professor, nurse and teacher. Obviously these occupations vary a great deal in income and social prestige. Despite obvious shortcomings for the Duncan scale, it remains the best of those available for our purposes.

Testing Hypotheses

The method by which each hypothesis is statistically tested is indicated in this section.
HYPOTHESIS I - The older the female student the lower in rank her occupational choice.

Occupational choices were given in response to two questions concerning desired and expected occupational choices. These responses were coded with a numerical value to which is ascribed the characteristic of being interval data. For purposes of testing this hypothesis, questionnaires were eliminated which did not have a response that could be assigned a numerical value. Examples of this included answers or responses of "I don't know," or vague answers such as "help people."

Because we are essentially interested in the difference of means among various grade levels, the data is analyzed using the one-way analysis of variance which is an extension of the difference-of-means test and can generally be used whenever we are testing for a relationship between a nominal and an interval scale. (Blalock 1972) The level of significance is set at .05.

HYPOTHESIS II - The older the male student the higher in rank his occupational choice.

The same method of statistical analysis was used as described for Hypothesis I.

HYPOTHESIS III - The difference between the mean score of occupational choices will be greater between older male
and female students than between younger male and female students.

Since there are three variables involved in testing this hypothesis, the statistical method used is the two-way analysis of variance. Again the level of significance is set at .05. Two analyses were run to test the desired and expected occupational choices separately.

**HYPOTHESIS IV** - Older female students will choose more traditionally accepted occupations than the younger female students.

Occupational choices of female students are codes as to whether they were "traditional," "non-traditional," or "don't know/no response." A chi-square test is used to make a statistical analysis using these three categories and comparing the occupational choices of girls at various grade level. The level of significance is .05.

**HYPOTHESIS V** - Female students who are married or engaged will have lower ranked occupational choices than those in the same age group who are not married or engaged.

For testing this hypothesis, girls in the eleventh grade only were asked for their dating or marital status. Again using the questions concerning desired and expected occupational choices, a comparison is made using the one-way analysis of variance. Separate
analysis is made for the desired and expected occupational choices. The level of significance is .05.

**HYPOTHESIS VI** - Female students whose mothers work will have higher ranked occupational choices than those whose mothers do not work.

The responses to the question asking whether their mother worked were used as categories against which the numerical values of the occupational choices of the female students are compared. Again, both the expected and desired occupational choices were analyzed separately. A comparison was made using the one-way analysis of variance. The significance level is set at .05.

**HYPOTHESIS VII** - The higher the mothers' occupational rank the higher the occupational choices of the daughters.

The responses to the question concerning mother's occupation were given a numerical value using the same method as the students' responses to occupational choices. Only those mothers who were employed and their daughters were included in this analysis. Since we are trying to test the ability to predict the rank of the girl's occupational choice by the mother's occupation, the Pearson product-moment correlation was used to measure the amount of association. (Blalock 1972) Again the desired and expected occupational choices of the students are compared separately to the mother's occupation.
CHAPTER IV
FINDINGS

Introduction

The purpose of this chapter is to present the findings of the survey of occupational choices, particularly of girls in the sixth, eighth, and eleventh grades. The first section will present general characteristics of the sample, the educational levels desired and expected, and the extent to which they anticipate working. The next section presents the statistical analysis of the hypotheses. Then additional information and findings from the data related to the concern of this research are presented.

General Characteristics of the Sample

There are 534 students in the sample, 260 (49%) are female and 274 (51%) are male. (See Table 3.1 for the age and grade distribution) The educational levels of parents of male and female students are similar with most parents having at least a high school education and many having education beyond high school.

Tables 4.1 and 4.2 show the educational attainments of the mothers and fathers of the students divided by the sex and grade level of the respondent. Approximately 34 percent (N = 181) of the fathers have
only completed high school with an equal proportion of 34 percent
(N = 181) having education beyond high school. A higher proportion of
mothers than fathers having just a high school education (46%; N = 243),
but a smaller proportion of mothers have education beyond high school
(30%; N = 158). A smaller proportion of mothers have advanced college
degrees (4%; N = 19) than fathers (8%; N = 44).

TABLE 4.1. Education level of fathers

<table>
<thead>
<tr>
<th>Father's Education Level</th>
<th>Student Grade Level</th>
<th>6</th>
<th>8</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Some grade school</td>
<td>1 ( 1%)</td>
<td>---</td>
<td>1 ( 1%)</td>
<td>4( 5%)</td>
</tr>
<tr>
<td>Completed grade school</td>
<td>4 ( 4%)</td>
<td>7 ( 7%)</td>
<td>3 ( 3%)</td>
<td>1 ( 1%)</td>
</tr>
<tr>
<td>Some high school</td>
<td>11 (12%)</td>
<td>12 (13%)</td>
<td>12 (13%)</td>
<td>14 (18%)</td>
</tr>
<tr>
<td>Completed high school</td>
<td>34 (36%)</td>
<td>34 (36%)</td>
<td>35 (37%)</td>
<td>26 (33%)</td>
</tr>
<tr>
<td>Special school - not college</td>
<td>3 ( 3%)</td>
<td>5 ( 5%)</td>
<td>2 ( 2%)</td>
<td>4( 5%)</td>
</tr>
<tr>
<td>Some college</td>
<td>8 ( 8%)</td>
<td>7 ( 7%)</td>
<td>9 (10%)</td>
<td>5 ( 6%)</td>
</tr>
<tr>
<td>Completed college</td>
<td>13 (14%)</td>
<td>11 (12%)</td>
<td>10 (11%)</td>
<td>10 (13%)</td>
</tr>
<tr>
<td>Advanced college degree</td>
<td>12 (13%)</td>
<td>9 (10%)</td>
<td>10 (11%)</td>
<td>3 ( 4%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 ( 1%)</td>
<td>1 ( 1%)</td>
<td>---</td>
<td>1 ( 1%)</td>
</tr>
<tr>
<td>DK - NR</td>
<td>8 ( 8%)</td>
<td>8 ( 9%)</td>
<td>12 (13%)</td>
<td>4( 5%)</td>
</tr>
</tbody>
</table>

In Chapter II it was indicated that an occupation was considered
more important for a male than a female and that if money is limited a
son may be given additional education rather than a daughter. Sixty
percent of the females have older brothers and 55 percent have younger brothers. Only 4 percent (N = 11) of the females have no siblings, and 3 percent (N = 7) of the male respondents have no siblings.

TABLE 4.2. --Education level of mother

<table>
<thead>
<tr>
<th>Mother's Education Level</th>
<th>Student Grade Level</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Some grade school</td>
<td>2 (2%)</td>
<td>- -</td>
<td>1 (1%)</td>
<td>1 (1%)</td>
<td>2 (2%)</td>
<td>1 (1%)</td>
<td></td>
</tr>
<tr>
<td>Completed grade school</td>
<td>4 (4%)</td>
<td>7 (7%)</td>
<td>1 (1%)</td>
<td>3 (4%)</td>
<td>1 (1%)</td>
<td>2 (2%)</td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>12 (13%)</td>
<td>16 (17%)</td>
<td>7 (7%)</td>
<td>11 (14%)</td>
<td>14 (16%)</td>
<td>14 (16%)</td>
<td></td>
</tr>
<tr>
<td>Completed high school</td>
<td>42 (44%)</td>
<td>36 (38%)</td>
<td>46 (49%)</td>
<td>33 (41%)</td>
<td>40 (47%)</td>
<td>46 (53%)</td>
<td></td>
</tr>
<tr>
<td>Special school - not college</td>
<td>6 (6%)</td>
<td>6 (6%)</td>
<td>2 (2%)</td>
<td>1 (1%)</td>
<td>3 (4%)</td>
<td>5 (6%)</td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>6 (6%)</td>
<td>11 (12%)</td>
<td>6 (6%)</td>
<td>8 (10%)</td>
<td>10 (12%)</td>
<td>8 (9%)</td>
<td></td>
</tr>
<tr>
<td>Completed college</td>
<td>15 (16%)</td>
<td>11 (12%)</td>
<td>16 (17%)</td>
<td>11 (14%)</td>
<td>7 (8%)</td>
<td>7 (8%)</td>
<td></td>
</tr>
<tr>
<td>Advanced college degree</td>
<td>4 (4%)</td>
<td>2 (2%)</td>
<td>6 (6%)</td>
<td>2 (3%)</td>
<td>3 (4%)</td>
<td>2 (2%)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>- -</td>
<td>1 (1%)</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td>- -</td>
<td></td>
</tr>
<tr>
<td>DK - NR</td>
<td>4 (4%)</td>
<td>4 (4%)</td>
<td>9 (10%)</td>
<td>10 (13%)</td>
<td>5 (6%)</td>
<td>1 (1%)</td>
<td></td>
</tr>
</tbody>
</table>

Educational Interests of Students

In Chapter I it was suggested that if females are to achieve equality in the labor force they must begin as early as males to prepare for those occupations which require special educational preparation. Questions were included in the questionnaire to ascertain the amount of education desired and expected. Tables 4.3 and 4.4 indicate the level of education
desired and expected by the student sample. While there is no effort made to discover the specific type of preparation needed for each occupation specified, we should be able to tell whether there is a difference in the degree to which females differ from males in regard to acquiring additional formal education which may be an indicator of occupational preparation.

**TABLE 4.3. --Level of education desired**

<table>
<thead>
<tr>
<th>Education Desired</th>
<th>6th Grade</th>
<th>8th Grade</th>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Quit now</td>
<td>2 (2%)</td>
<td>3 (3%)</td>
<td>2 (3%)</td>
</tr>
<tr>
<td>Some high school</td>
<td>---</td>
<td>4 (4%)</td>
<td>---</td>
</tr>
<tr>
<td>Grad high school</td>
<td>22 (23%)</td>
<td>14 (15%)</td>
<td>17 (18%)</td>
</tr>
<tr>
<td>Secretarial or trade school</td>
<td>5 (5%)</td>
<td>5 (5%)</td>
<td>7 (7%)</td>
</tr>
<tr>
<td>Some college</td>
<td>10 (11%)</td>
<td>7 (7%)</td>
<td>13 (14%)</td>
</tr>
<tr>
<td>Grad college</td>
<td>36 (38%)</td>
<td>42 (45%)</td>
<td>25 (27%)</td>
</tr>
<tr>
<td>Advanced college degree</td>
<td>17 (18%)</td>
<td>18 (19%)</td>
<td>28 (30%)</td>
</tr>
<tr>
<td>DK - NR</td>
<td>3 (3%)</td>
<td>1 (1%)</td>
<td>---</td>
</tr>
</tbody>
</table>

Most of the females in the sample both expected and desired to obtain education or special training beyond high school. This is essentially true for male respondents also. More male and female students desired education beyond high school than expected to get it. There are differences between the sexes, and among the grade levels. In each grade a larger proportion of girls than boys desire and expect to
graduate from college. In the sixth grade a slightly larger proportion of girls desire and expect advanced college degrees, however, in the eighth and eleventh grades a larger proportion of boys than girls desire and expect advanced college degrees.

TABLE 4.4. --Level of education expected

<table>
<thead>
<tr>
<th>Education Expected</th>
<th>Grade Level</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>8</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Quit now</td>
<td>---</td>
<td>2 ( 2%)</td>
<td>1 ( 1%)</td>
<td>1 ( 1%)</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Some high school</td>
<td>1 ( 1%)</td>
<td>6 ( 6%)</td>
<td>2 ( 2%)</td>
<td>2 ( 3%)</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Grad high school</td>
<td>27 (28%)</td>
<td>21 (22%)</td>
<td>27 (29%)</td>
<td>32 (40%)</td>
<td>32 (38%)</td>
<td>30 (35%)</td>
</tr>
<tr>
<td>Secretarial or trade school</td>
<td>6 ( 6%)</td>
<td>3 ( 3%)</td>
<td>7 ( 7%)</td>
<td>6 ( 8%)</td>
<td>4 ( 5%)</td>
<td>10 (12%)</td>
</tr>
<tr>
<td>Some college</td>
<td>13 (14%)</td>
<td>7 ( 7%)</td>
<td>10 (11%)</td>
<td>8 (10%)</td>
<td>19 (22%)</td>
<td>9 (10%)</td>
</tr>
<tr>
<td>Grad college</td>
<td>34 (36%)</td>
<td>43 (46%)</td>
<td>28 (30%)</td>
<td>30 (38%)</td>
<td>15 (18%)</td>
<td>31 (36%)</td>
</tr>
<tr>
<td>Advanced college degree</td>
<td>9 ( 9%)</td>
<td>11 (12%)</td>
<td>19 (20%)</td>
<td>1 ( 1%)</td>
<td>15 (18%)</td>
<td>6 ( 7%)</td>
</tr>
<tr>
<td>DK - NR</td>
<td>5 ( 5%)</td>
<td>1 ( 1%)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

In the eleventh grade 35 percent of the females are enrolled in a college preparatory curriculum as compared to 28 percent of the male students. (See Table 4.5) A similar proportion (27%) of males are enrolled in a vocational curriculum, while only 8 percent of the females are enrolled in a vocational program. Sixty-one percent of the females are enrolled in programs which emphasize preparation for occupations outside the home (college preparatory, business, vocational) and only 7 percent are enrolled in home economics, although home economics
may also be early preparation for a professional career.

TABLE 4.5. --High school curriculum of eleventh grade students

<table>
<thead>
<tr>
<th>Curriculum</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>College prep</td>
<td>24²</td>
<td>30³</td>
</tr>
<tr>
<td>Business</td>
<td>10¹</td>
<td>22⁴</td>
</tr>
<tr>
<td>Vocational</td>
<td>23⁴</td>
<td>8²</td>
</tr>
<tr>
<td>General</td>
<td>20¹</td>
<td>15</td>
</tr>
<tr>
<td>Home economics</td>
<td>6³</td>
<td>(27%)</td>
</tr>
<tr>
<td>None</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>DK - NR</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

¹ includes one who indicated more than 1 curriculum
² includes two who indicated more than 1 curriculum
³ includes three who indicated more than 1 curriculum
⁴ includes four who indicated more than 1 curriculum

Occupational Interests of Females

Most females indicated that they expect to have a career or to work in the future. In response to how they saw themselves 15 years into the future, 61 percent think they will have a career with 47 percent expecting to combine a career with marriage and a family. At each grade level more than 50 percent indicated they saw themselves combining marriage and career, either with or without children. Table 4.6 seems to indicate that older females are most likely to see
themselves married while 17 percent of the females in the sixth grade see themselves as unmarried with a career.

TABLE 4.6. --How female students see themselves 15 years in the future

<table>
<thead>
<tr>
<th>Future expectations</th>
<th>Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Unmarried with career</td>
<td>16 (17%)</td>
</tr>
<tr>
<td>Housewife, no children</td>
<td>3 (3%)</td>
</tr>
<tr>
<td>Housewife, with children</td>
<td>26 (28%)</td>
</tr>
<tr>
<td>Married career woman</td>
<td></td>
</tr>
<tr>
<td>no children</td>
<td>9 (10%)</td>
</tr>
<tr>
<td>Married career woman</td>
<td></td>
</tr>
<tr>
<td>with children</td>
<td>39 (41%)</td>
</tr>
<tr>
<td>Other - with career</td>
<td>---</td>
</tr>
<tr>
<td>Other - no career indicated</td>
<td>---</td>
</tr>
<tr>
<td>DK - NR</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Totals</td>
<td>94</td>
</tr>
</tbody>
</table>

When asked how long they expected to work, about one-third or fewer of the girls in each grade indicate "2 years or less." In the eleventh grade 42 percent say they expect to work more than 5 years. (See Table 4.7)

When asked about conditions under which it is all right for a wife to work only 2 percent (N = 6) of the girls indicated that a wife should
not work at all, while 5 percent ($N = 15$) of the boys thought a wife should not work at all. (See Table 4.8) Eighteen percent ($N = 48$) indicated a wife should work if she wanted to work and most of the respondents indicated that if she had no obligations at home, for example, either no children or the children were in school, it would be acceptable for a wife to work. On the other hand, 13 percent ($N = 15$) of the boys indicated a wife should work if she wanted to and 57 percent ($N = 158$) if she had no obligations at home. (See Chapter V for further discussion)

**TABLE 4.7.**--Number of years female students expected to work

<table>
<thead>
<tr>
<th>Years</th>
<th>Grade Level</th>
<th>6 (10%)</th>
<th>8 (9%)</th>
<th>11 (2%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td></td>
<td>9</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>1-2 years</td>
<td></td>
<td>25</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td>3-5 years</td>
<td></td>
<td>21</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>More than 5 years</td>
<td></td>
<td>36</td>
<td>23</td>
<td>36</td>
</tr>
<tr>
<td>DK - NR</td>
<td></td>
<td>3</td>
<td>10</td>
<td>13</td>
</tr>
</tbody>
</table>

**Summary**

Most of the girls indicated that they expected to work in the future and most saw themselves combining work with marriage and a family. Most of them are enrolled in school programs which are preparatory for work or further education, and most have expectations
TABLE 4.8.--Circumstances under which it is all right for wife to work

<table>
<thead>
<tr>
<th>Circumstances</th>
<th>Male N</th>
<th>%*</th>
<th>Female N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>If she has no children</td>
<td>67</td>
<td>24</td>
<td>62</td>
<td>24</td>
</tr>
<tr>
<td>If all her children are in school</td>
<td>74</td>
<td>27</td>
<td>91</td>
<td>35</td>
</tr>
<tr>
<td>If family needs money regardless of age of children</td>
<td>26</td>
<td>9</td>
<td>36</td>
<td>14</td>
</tr>
<tr>
<td>If she wants to regardless of age of children</td>
<td>36</td>
<td>13</td>
<td>48</td>
<td>18</td>
</tr>
<tr>
<td>She should not work unless her family needs money</td>
<td>41</td>
<td>15</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>She should not work away from home at all</td>
<td>15</td>
<td>5</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>No obligations, or children grown</td>
<td>15</td>
<td>5</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Children in school or can care for themselves and need money</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

*Because some students indicated more than one choice the percentages add up to more than 100%.

of getting education beyond the high school level. Only a very few of the female respondents indicated that married women should not work. The implications are that they expect to work and for many a relatively long period. It seems reasonable to assume that they are making plans and preparing for some future occupation.
Statistical Analysis of Hypotheses

Hypothesis I  The older the female student the lower in rank her occupational choice.

According to the procedures described in Chapter III, this hypothesis is tested by the one-way analysis of variance comparing the occupational choices of the eleventh grade with the sixth and eighth grade female students. (See Table 4.9) The desired occupational choice and the expected occupational choices are analyzed separately, so there are two tests of this hypothesis.

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Mean Score Desired Occupation*</th>
<th>Mean Score Expected Occupation**</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>52.45</td>
<td>42.82</td>
<td>55</td>
</tr>
<tr>
<td>8</td>
<td>52.47</td>
<td>47.70</td>
<td>47</td>
</tr>
<tr>
<td>6</td>
<td>55.51</td>
<td>49.58</td>
<td>69</td>
</tr>
</tbody>
</table>

\*F = 0.374, P = 0.6886  \*\*F = 1.306, P = 0.274

This hypothesis is not supported. There is no significant difference at the .05 level, in the occupational choices of older female and younger female students. This is true whether looking at the desired or expected occupation. However, the slight difference between the younger and older girls is in the direction predicted.
Hypothesis II  The older the male student the higher in rank his occupational choice.

This hypothesis was analyzed statistically by using the one way analysis of variance, and using the .05 level of significance, to compare the older with the younger boys. Both the desired and the expected occupational choices were analyzed separately, which constitute two tests of this hypothesis. (See Table 4.10)

TABLE 4.10. --Level of occupational choices of males by grade

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Mean Score Desired Occupation*</th>
<th>Mean Score Expected Occupation**</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>55.45</td>
<td>38.38</td>
<td>53</td>
</tr>
<tr>
<td>8</td>
<td>59.60</td>
<td>48.45</td>
<td>55</td>
</tr>
<tr>
<td>6</td>
<td>51.33</td>
<td>41.76</td>
<td>72</td>
</tr>
</tbody>
</table>

*F = 1.534, P = 0.219  **F = 1.614, P = 0.202

This hypothesis is not supported since the mean values of the occupational choices, desired and expected, of the eleventh grade males were lower than for the eighth grade males. The mean value of both the desired and expected occupations show a curvilinear relationship with the eighth grade showing the highest value in each case.
Hypothesis III  The gap in the rank between the occupational choices will be wider between older male and female students than between younger male and female students.

The desired and expected occupational choices of the respondents were analyzed separately using the weighted two way analysis of variance at the .05 level of significance. (See Tables 4.11 and 4.12)

There are two tests provided for this hypothesis.

TABLE 4.11. --Comparison level of desired occupational choices of males and females by grade

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Mean Score for Male Students</th>
<th>Mean Score for Female Students</th>
<th>Difference Female Score less Male Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>55.45</td>
<td>52.45</td>
<td>-3.00</td>
</tr>
<tr>
<td>8</td>
<td>59.60</td>
<td>52.47</td>
<td>-7.13</td>
</tr>
<tr>
<td>6</td>
<td>51.33</td>
<td>55.51</td>
<td>+4.18</td>
</tr>
</tbody>
</table>

F = 0.89,  P = 0.490

TABLE 4.12. --Comparison of level of expected occupational choices of males and females by grade

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Mean Score for Male Students</th>
<th>Mean Score for Female Students</th>
<th>Difference Female Score less Male Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>38.38</td>
<td>42.82</td>
<td>+4.44</td>
</tr>
<tr>
<td>8</td>
<td>48.45</td>
<td>47.70</td>
<td>-.75</td>
</tr>
<tr>
<td>6</td>
<td>41.76</td>
<td>49.58</td>
<td>+7.82</td>
</tr>
</tbody>
</table>

F=1.59,  P = 0.162

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There is no significant difference in the choices of males and females for either the desired or expected occupations. However, it is interesting to note that the mean value of girls' occupational choices in the sixth grade for both the desired and expected occupations are somewhat higher than that of the sixth grade boys. According to the information in Chapter II, it would have been expected that in the sixth grade occupational choices for both boys and girls would be similar.

In the eleventh grade male respondents show a mean score for desired occupation slightly higher than the female respondents, while the females show a slightly higher mean score for expected occupational choices than the male students. In the eighth grade males show a higher mean score for both desired and expected occupational choices, but with the expected occupation reflecting a minimum of difference.

Hypothesis IV  Older female students will reflect more traditionally accepted occupations than the younger female students.

Most female students did select an occupation classified as a traditional female occupation. Of the 260 female respondents, 165 desired traditional occupations, while 68 desired non-traditional occupations. In response to the expected occupational choice, 162 chose traditional and 33 chose non-traditional occupations. (See Table 4.13) There are two tests provided for this hypothesis.

Looking at the proportion of females who chose traditional as
opposed to non-traditional occupations, there is no significant difference between the older and the younger female students for either the desired or expected choice of occupations, using the chi square statistical test.

(See Tables 4.14 and 4.15)

**TABLE 4.13. --Types of occupations desired and expected by females**

(N = 260)

<table>
<thead>
<tr>
<th></th>
<th>Traditional</th>
<th>Non-Traditional</th>
<th>DK-NR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desired</td>
<td>165</td>
<td>68</td>
<td>27</td>
</tr>
<tr>
<td>Expected</td>
<td>162</td>
<td>33</td>
<td>65</td>
</tr>
</tbody>
</table>

**TABLE 4.14. --Females desiring occupations by traditional and non-traditional categories and grade**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Traditional</th>
<th>Non-Traditional</th>
<th>DK-NR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>11</td>
<td>57</td>
<td>66</td>
<td>18</td>
</tr>
<tr>
<td>8</td>
<td>46</td>
<td>58</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>62</td>
<td>66</td>
<td>26</td>
</tr>
<tr>
<td>Totals</td>
<td>165</td>
<td>68</td>
<td>27</td>
</tr>
</tbody>
</table>

*Chi Square = 4.353, P = 0.36*
TABLE 4.15. --Females expecting occupations by traditional and non-traditional categories and grade

<table>
<thead>
<tr>
<th>Grade</th>
<th>Traditional</th>
<th>Non-Traditional</th>
<th>DK-NR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>11</td>
<td>54</td>
<td>63</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>47</td>
<td>59</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>61</td>
<td>65</td>
<td>17</td>
</tr>
<tr>
<td>Totals</td>
<td>162</td>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

Chi Square = 8.034, P = 0.09

The proportion of females in each grade indicating a traditional occupation is relatively stable. The most noticeable difference between the desired and expected occupations with regard to those choosing a traditional or non-traditional occupation is the increase in those females responding either "don't know/no response" to the question of expected occupation, and the decrease in the proportion selecting non-traditional occupations. In the eleventh grade over one quarter of the females and nearly a third of the eighth grade females gave no response to their expected occupational choice. Further analysis shows the types of changes made from the desired to expected occupational choices. (See Table 4.16)

According to Table 4.16 most of those who indicated a traditional occupation in response to the question concerning desired occupation (N = 165) also chose a traditional expected occupation (N = 129). Only...
four respondents went from a traditional desired occupation to a non-traditional expected occupation.

**TABLE 4.16.** --Changes between desired and expected occupation of females

<table>
<thead>
<tr>
<th>Expected Occupations</th>
<th>Traditional</th>
<th>Non-Traditional</th>
<th>DK-NR</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Traditional</td>
<td>129</td>
<td>78</td>
<td>28</td>
<td>41</td>
</tr>
<tr>
<td>Non-Traditional</td>
<td>4</td>
<td>2</td>
<td>28</td>
<td>41</td>
</tr>
<tr>
<td>DK-NR</td>
<td>32</td>
<td>20</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>Totals</td>
<td>165</td>
<td>100</td>
<td>68</td>
<td>100</td>
</tr>
</tbody>
</table>

Of the 68 females who desire non-traditional occupations, 28 (41%) also expected non-traditional occupations. There are also 28 (41%) who desired non-traditional occupations who expected traditional occupations, and 12 (18%) who desired non-traditional occupations who did not indicate an expected occupation. Most of those who do not list a desired occupation (N = 27) do not indicate an expected occupation (N = 21, 77%).

When examining the degree of change by each grade level the pattern changes in the types of occupations indicated. (See Tables 4.17, 4.18 and 4.19)

Sixth grade girls usually indicate the same type of occupation for both the desired and expected occupational choice. Of the 62 who desire
traditional occupations, 52 expect traditional occupation. Also, of the 26 who desire non-traditional occupations, 15 expected non-traditional occupations, with 7 expecting traditional occupations and 4 indicating that they do not know what they expect. (See Table 4.17)

In the eighth grade 46 desired traditional occupations. Forty-seven expected traditional occupations, including 11 moving from a desired non-traditional occupation to an expected traditional occupation and 10 going from a traditional desired occupation to a no response for expected occupation. Of the 24 who desired a non-traditional occupation only 6 expected a non-traditional occupation, while 7 moved to the don't know/no response category. (See Table 4.18)

In the eleventh grade more than half, 10 out of 18, who indicated non-traditional desired occupations expected traditional occupations. Seven both desired and expected non-traditional occupations. (See Table 4.19) Of the 57 who desired traditional occupations 41 also expected traditional occupations.

**TABLE 4.17. --Grade 6 - changes between desired and expected occupations of females**

<table>
<thead>
<tr>
<th>Expected Occupations</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Desired Occupations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Traditional</td>
<td>Non-Traditional</td>
<td>DK-NR</td>
<td>Totals</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Traditional</td>
<td>52</td>
<td>84</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>Non-Traditional</td>
<td>2</td>
<td>3</td>
<td>15</td>
<td>58</td>
</tr>
<tr>
<td>DK-NR</td>
<td>8</td>
<td>13</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Totals</td>
<td>62</td>
<td>100</td>
<td>26</td>
<td>100</td>
</tr>
</tbody>
</table>

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TABLE 4.18. --Grade 8 - Changes between desired and expected occupations of females

<table>
<thead>
<tr>
<th>Expected Occupations</th>
<th>Desired Occupations</th>
<th></th>
<th></th>
<th>DK - NR</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Traditional</td>
<td>Non-Traditional</td>
<td>DK - NR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traditional</td>
<td>36</td>
<td>11</td>
<td>46</td>
<td>-</td>
<td>47</td>
</tr>
<tr>
<td>Non-Traditional</td>
<td>--</td>
<td>6</td>
<td>25</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>DK - NR</td>
<td>10</td>
<td>7</td>
<td>29</td>
<td>9</td>
<td>90</td>
</tr>
<tr>
<td>Totals</td>
<td>46</td>
<td>24</td>
<td>100</td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

These findings seem to indicate that the sixth grade females are more likely to indicate a non-traditional occupation for both the desired and expected occupational choice than either the eighth or eleventh grade. In both the eighth and eleventh grade those who indicate a desired non-traditional occupation are more likely to expect a traditional occupation, than to expect a non-traditional occupation.

The biggest change in those who desired a traditional occupation is to the don't know/no response category for all three grades with those in the eleventh grade having the largest proportion of those moving in that direction. This would seem to indicate that while females may desire an occupation, they are less sure of what to expect in the way of a job. This may be an indication that they see the future as unsure or are waiting to see what circumstances prevail at a later time. This may also indicate that they are not seriously considering or preparing
for an occupation or career at this stage in their life.

TABLE 4.19. --Grade 11 -- changes between desired and expected occupational choices

<table>
<thead>
<tr>
<th>Expected Occupation</th>
<th>Desired Occupation</th>
<th>Traditional</th>
<th>Non-Traditional</th>
<th>DK - NR</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>41</td>
<td>72</td>
<td>10</td>
<td>56</td>
<td>3</td>
<td>27</td>
</tr>
<tr>
<td>Non-Traditional</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>38</td>
<td>-</td>
</tr>
<tr>
<td>DK - NR</td>
<td>14</td>
<td>24</td>
<td>1</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Totals</td>
<td>57</td>
<td>100</td>
<td>18</td>
<td>100</td>
<td>11</td>
</tr>
</tbody>
</table>

Hypothesis V  Females who are married or engaged will have lower ranked occupational choices than those in the same age group who are not married or engaged.

Since there are only 13 engaged and no married females in the sample there is insufficient representation to analyze the data statistically. However, the occupations indicated by those girls who are engaged are overwhelmingly traditional female occupations including 2 teachers, 2 secretaries and a typist, a social worker, and a cashier to store clerk. All of the girls who are engaged expected occupations which are traditionally female occupations with 3 indicating "don't know" and one "none." Eight out of the 13 indicated they wanted to combine marriage with a career.
While it is not possible to support or refute the hypothesis, it is evident that while most of these respondents expect to work none of them anticipate professional or high prestige occupations.

Hypothesis VI Females whose mothers work will have higher ranked occupational choices than those whose mothers do not work.

To test this hypothesis, two tests were included. Both the expected and desired occupational choices were analyzed separately using the one-way analysis of variance to test the difference in means between girls whose mothers work and those whose mothers do not work. Of the 260 females surveyed there were 146 (56%) with working mothers.

There is no significant difference between those whose mothers work and those whose mothers do not work.

TABLE 4.20.--Level of occupational choices of females whose mothers work vs. those whose mothers do not work (N = 171)

<table>
<thead>
<tr>
<th></th>
<th>Mean Score of Desired Occupation*</th>
<th>Mean Score of Expected Occupation**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>54.18</td>
<td>47.68</td>
</tr>
<tr>
<td>No Work</td>
<td>52.89</td>
<td>46.29</td>
</tr>
<tr>
<td>DK - NR</td>
<td>65.25</td>
<td>48.25</td>
</tr>
</tbody>
</table>

*F = 0.603, P = 0.548
**F = 0.7562E-01, P = 0.927

Tables 4.21 and 4.22 indicate the distribution of daughter's
occupational choices as compared to the mother's occupation. This distribution is reflective only of those mothers who are currently employed and of the female respondents who indicate an occupation to both desired and expected occupational choices (N = 99). As shown in the tables, there is little relationship between the level of mothers' occupations and the daughters' occupational choices. The highest ranked occupation held by a mother is teacher. There is only one female respondent whose mother is a teacher, who also desires to be a teacher, and no student whose mother is a teacher expects to be a teacher. With this one exception the mothers with the highest level jobs all have daughters who expect lower level jobs than that of the mother. Mothers in the lowest category have daughters who desire and expect occupations across the range of occupations except the two highest categories. When comparing the marginal frequencies daughters desire and expect low ranking occupations (categories 0 and 1) in fewer numbers than the mothers found in these level occupations. Daughters also appear to desire and expect the higher ranking categories (categories 6 through 9) to a greater extent than the number of mothers that are employed in these categories.

1Representative occupations of the categories: 0, factory laborers; 1, waitress, nurses aide; 2, stewardess; 3, store clerk, modeling; 4, dental assistant, nurse; 5, photographer, music teacher; 6, secretary; 7, teacher, veterinarian; 8, reporter, psychologist; 9, doctor, lawyer.
### TABLE 4.21. --Level of mother's occupation as compared to daughter's desired occupation

<table>
<thead>
<tr>
<th>Mother's Occupation Category</th>
<th>Daughter's Desired Occupational Choice Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3 4 5 6 7 8 9 Total</td>
</tr>
<tr>
<td>0</td>
<td>3 1 1 2 4 1 1 4 0 0 17</td>
</tr>
<tr>
<td>1</td>
<td>3 2 0 3 7 1 3 7 1 0 27</td>
</tr>
<tr>
<td>2</td>
<td>0 0 0 0 0 0 0 1 0 0 1</td>
</tr>
<tr>
<td>3</td>
<td>0 1 0 0 2 0 1 4 1 0 9</td>
</tr>
<tr>
<td>4</td>
<td>0 0 1 1 8 0 6 3 2 2 23</td>
</tr>
<tr>
<td>5</td>
<td>0 0 1 0 0 1 1 0 0 0 3</td>
</tr>
<tr>
<td>6</td>
<td>0 0 0 2 4 0 3 4 0 1 14</td>
</tr>
<tr>
<td>7</td>
<td>0 1 0 1 0 0 2 1 0 0 5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6 5 3 9 25 3 17 24 4 3 99</td>
</tr>
</tbody>
</table>

### TABLE 4.22. --Level of mother's occupation as compared to daughter's expected occupation

<table>
<thead>
<tr>
<th>Mother's Occupation Category</th>
<th>Daughter's Expected Occupational Choice Category</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3 4 5 6 7 8 9 Total</td>
</tr>
<tr>
<td>0</td>
<td>2 5 1 3 2 0 2 1 1 0 17</td>
</tr>
<tr>
<td>1</td>
<td>2 5 0 4 8 0 1 7 0 0 27</td>
</tr>
<tr>
<td>2</td>
<td>0 0 0 0 0 0 0 1 0 0 1</td>
</tr>
<tr>
<td>3</td>
<td>0 1 0 1 3 0 2 2 0 0 9</td>
</tr>
<tr>
<td>4</td>
<td>2 1 0 2 7 0 5 4 2 0 23</td>
</tr>
<tr>
<td>5</td>
<td>0 1 0 0 0 0 2 0 0 0 3</td>
</tr>
<tr>
<td>6</td>
<td>0 1 0 2 4 0 3 3 0 1 14</td>
</tr>
<tr>
<td>7</td>
<td>1 1 0 1 1 0 1 0 0 0 5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7 15 1 13 25 0 14 20 3 1 99</td>
</tr>
</tbody>
</table>

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Hypothesis VII The higher the mothers' occupational rank
the higher the occupational choices of daughters.

To test the relationship of the mothers' occupation and the
daughters' desired and expected occupational choices, the Pearson
product-moment correlation is utilized to measure the degree of associ-
ation.

The daughters' desired occupational choices compared to the
mothers' occupations gives a value of $r = .21$. Comparing the daughters' expected occupational choices with the mothers' occupations gives a value of $r = .19$. Therefore, we cannot account for the differences in girls' occupational choices by looking at the mothers' occupation.

Additional Findings

Although the difference in the mean scores of the occupations
chosen by males and females is not great, there is a striking difference
in the nature and variety of occupational choices between the sexes
which is obscured by looking at just the numerical values. In summar-
izing the types of jobs reflected in the survey, female respondents in the
eleventh grade ($N = 86$) indicated 20 different traditional occupations and
14 different non-traditional occupations or a total of 34 different jobs
as desired. These included 11 choices for secretary, four office
workers (including typists), nine nurses, six teachers, a waitress,
three child care workers and three social workers. These occupations
accounted for 37 choices out of an N = 55 traditional occupational choices. The non-traditional choices (N = 21) included two psychologists, one foreign diplomat, a certified public accountant, a person in food management, five veterinarians, and one person indicated a choice of either mathematics of chemistry.

### TABLE 4.23. --Number of categories of occupational choices of eleventh grade female students

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Desired</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Non-traditional</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Totals</td>
<td>34</td>
<td>28</td>
</tr>
</tbody>
</table>

In response to the question pertaining to the expected occupation there were 21 different traditional occupations and 7 different non-traditional occupations indicated for a total of 28 different occupations. Included in the occupations classified as traditional were eight secretaries, six office workers, six nurses and two nurses aides, five teachers and two teacher aides, seven child care workers and a social worker. These eight categories accounted for 46 out of the 67 students responding to this question or more than 68 percent.

Looking at the differences between the desired and expected occupational choices, there is an increase in those who expected to be office
workers, nurses aides, waitresses, and child care workers. There was also a decrease in the number choosing secretarial, nursing or teaching, and a decrease in those who chose to be veterinarians.

Conspicuously missing from the list of desired occupations by females is management type positions (except that of food management), medical doctor or dentist, owners of businesses, athletes, lawyers, and engineers. The hard sciences are missing with the exception of the one response of mathematics or chemistry. There are no choices for pilot although there are two who desire to be stewardesses. With the exception of police work there is no interest shown in any outdoor type of work. Although females are credited by some with better fine muscle control or dexterity than males, it appears that only beauticians and office or secretarial work would require a great deal of this skill. It is apparent from the responses that these junior and senior high school females desire or expect to help people but not to help create or fix "things."

In comparing eleventh grade girls' jobs desired and expected to the job choices of the male students in the eleventh grade (see Table 4.24), there were 45 different occupations (N = 77) listed as desired and 40 different occupations (N = 67) listed as expected. The desired occupations included president, two medical doctors and one dentist, two lawyers, two architects, two owners of business, and seven indicated choices in science or engineering. Fourteen chose "outdoor"
types of work including policeman, fireman, game warden, athletes, etc., and 19 indicated occupations dealing with the repair or construction of "things." Missing from the list are the "helping" occupations, or those that assist someone else.

**TABLE 4.24. --Number of occupational categories chosen--11th grade**

<table>
<thead>
<tr>
<th></th>
<th>Desired</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>45 (N = 77)</td>
<td>40 (N = 67)</td>
</tr>
<tr>
<td>Female</td>
<td>34 (N = 76)</td>
<td>28 (N = 67)</td>
</tr>
<tr>
<td>Differences</td>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

In comparing the expected to the desired occupational choices of eleventh grade male students there is an increase in the number indicating non-specific factory jobs, a difference between 2 desired and 14 expected. This was the biggest difference noted. There was also an increase in the number of cooks and gas station attendants as expected jobs. There were decreases in the number who expected to be pilots and athletes and there were no males who expected to own businesses although 2 indicated a desire to do so.

In the eighth grade the distribution of occupations is similar to the eleventh grade. Females desire occupations in 12 different traditional categories and 17 different non-traditional categories, but they expect jobs in 13 different traditional categories and only 6 different
non-traditional categories. While they desire a wide variety of non-traditional occupations, including a doctor, three lawyers, three veterinarians, a zoologist and a pharmacist, only one person expects to be a lawyer and none of the others of this group expects to attain their desired occupation. The occupation of teacher was desired by 15 students (N = 72) and expected by 11 students (N = 51), while secretary was desired by four people and expected by eight people. These are the two largest categories.

TABLE 4.25. --Number of categories of occupational choices of eighth grade female students

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Desired</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Non-Traditional</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>Totals</td>
<td>29</td>
<td>19</td>
</tr>
</tbody>
</table>

The male respondents in the eighth grade desired 40 different occupations and expected 44 different occupations. (See Table 4.26)

The most desired occupations were doctor and athlete with nine students preferring each occupation and lawyer with eight students making that choice. The categories of doctor and lawyer each received four responses for expected occupation and three expected to be

1 The difference in the value of N between desired and expected reflects an increase in the DK - NR category.
TABLE 4.26. --Number of occupational categories chosen--8th grade

<table>
<thead>
<tr>
<th></th>
<th>Desired</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>40 (N = 84)</td>
<td>44 (N = 66)</td>
</tr>
<tr>
<td>Female</td>
<td>29 (N = 72)</td>
<td>19 (N = 54)</td>
</tr>
<tr>
<td>Difference</td>
<td>11</td>
<td>25</td>
</tr>
</tbody>
</table>

As was found in the eleventh grade, the eighth grade female students usually desired and expected occupations working with or helping people. And again, the male students showed a preference for building or repairing "things."

The sixth grade female student desired occupations in 16 different traditional occupational categories, and 18 non-traditional categories for a total of 34 categories. They expected occupations in 17 different traditional categories and 13 non-traditional occupational categories for a total of 30 categories. (See Table 4.27) Again teaching is the most preferred category with 20 desiring to be a teacher (N = 85) and 15 expecting to be a teacher. Nursing is the second most popular category with 12 desiring the occupation and 10 expecting the occupation.

The sixth grade boys desired occupations from 38 different categories and expected occupations from 38 different categories. Professional sports is the largest desired category with 16 choosing it,
while in response to the expected category there were 9 who chose factory work and 8 who chose professional sports.

TABLE 4.27. --Number of categories of occupational choices of sixth grade female students

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Desired</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>Non-Traditional</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>Totals</td>
<td>34</td>
<td>30</td>
</tr>
</tbody>
</table>

TABLE 4.28. --Number of occupational categories chosen--sixth grade

<table>
<thead>
<tr>
<th>Gender</th>
<th>Desired</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>38 (N = 85)</td>
<td>38 (N = 85)</td>
</tr>
<tr>
<td>Female</td>
<td>34 (N = 89)</td>
<td>30 (N = 76)</td>
</tr>
<tr>
<td>Difference</td>
<td>4</td>
<td>8</td>
</tr>
</tbody>
</table>

In all grades the male students indicated a larger number of occupational categories than the female students. (See Tables 4.24, 4.26, and 4.28) The female students in each grade desired occupations from a much larger number than they expected to obtain in later life. In each grade the female students showed a noticeable drop in the number of non-traditional occupations desired in relation to the number of non-traditional occupations expected, while for the male the number
of categories remained the same or actually increased from desired to expected occupational choices. For both males and females the range was wider for the eleventh grade than the eighth grade and sixth grade.

In each grade the categories of teacher, nurse and secretary accounted for a large number of female respondents. There is no grouping in categories to this extent in the male choices with the exception of a desired occupation of athletes in the younger boys and the expected occupation of factory worker for the eleventh grade boys. Teacher, nurse, and secretary are all in the upper portion of the measurement scale used for the statistical analysis.

It seems apparent from the choices desired by females that they are interested in some occupations that are not traditionally considered appropriate female occupations. However, many do not expect to actually attain these goals.

Summary

The findings of this study have failed to support the hypotheses. Statistically there is no significant difference in levels of occupational choices between male and female students, older and younger female students, female students whose mothers work as opposed to those whose mothers do not work; nor is there any influence of the status level of the mother's occupation.

The most noticeable difference between male and female occupational choices was in the types of jobs both desired and expected.
Females most often desired and expected the traditional female occupations. This by definition includes those that are an extension of the traditional female role as wife and mother, those that are most often held by women and those that are helper or assistant to a more prestigious occupation. Female students indicate a much narrower range of occupations as appropriate occupations and for the most part the choices are found clustered in a relatively few occupational categories.

This survey has shown that of the students in eight Grand Rapids schools a large proportion of both male and female students indicate that they desire and expect education beyond that of the level of high school graduate. This would seem to indicate that females are as willing to prepare for an occupation or career as male students. However, no attempt was made to ascertain whether females view post high school education as career preparation.

While the hypotheses were not supported, the results appear to support current female occupational choice in that there is an under-representation of females in higher level professional occupations, including medical doctor, dentist, lawyer, and scientists, and an over-representation of the quasi-professional levels. Although a few females indicated that they desired higher level occupations, they seldom expected to attain any of these occupations. This would seem to indicate that females do not perceive these occupations as viable opportunities or appropriate choices, and that, if these students are typical
of others in the society, there will probably continue to be an unequal
distribution of females over the occupational spectrum.
TABLE 4.29. --Summary of hypotheses and findings

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Test</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. The older the female student the lower in rank her occupational choice.</td>
<td>one way analysis of variance</td>
<td>not supported</td>
</tr>
<tr>
<td></td>
<td>F=0.374</td>
<td>F=1.306</td>
</tr>
<tr>
<td>II. The older the male student the higher in rank his occupational choice.</td>
<td>one way analysis of variance</td>
<td>not supported</td>
</tr>
<tr>
<td></td>
<td>F=1.534</td>
<td>F=1.614</td>
</tr>
<tr>
<td>III. The difference between the mean score of occupational choices will be greater between older male and female students than between younger male and female students.</td>
<td>two way analysis of variance</td>
<td>not supported</td>
</tr>
<tr>
<td></td>
<td>F=0.89</td>
<td>F=1.59</td>
</tr>
<tr>
<td>IV. Older female students will choose more traditionally accepted occupations than the younger female students.</td>
<td>chi square</td>
<td>not supported</td>
</tr>
<tr>
<td></td>
<td>$x^2=4.353$</td>
<td>$x^2=8.034$</td>
</tr>
<tr>
<td>V. Female students who are married or engaged will have lower ranked occupational choices than those in the same age group who are not married or engaged.</td>
<td>not tested</td>
<td></td>
</tr>
<tr>
<td>VI. Female students whose mothers work will have higher ranked occupational choices than those whose mothers do not work.</td>
<td>one way analysis of variance</td>
<td>not supported</td>
</tr>
<tr>
<td></td>
<td>F=0.603</td>
<td>F=0.7562E-01</td>
</tr>
<tr>
<td>VII. The higher the mothers' occupational rank the higher the occupational choices of daughters.</td>
<td>Pearson product- moment correlation</td>
<td>supported</td>
</tr>
<tr>
<td></td>
<td>$r=.21$</td>
<td>$r=.19$</td>
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CHAPTER V

CONCLUSIONS

Introduction

The objective of this research was to determine the effects of age, or grade level, and the influence of the mother as role model on the occupational choices of female children and adolescents. A comparison was made between male and female occupational choices, and between girls whose mothers work and those whose mothers do not work. The findings did not support the general hypotheses of this research. This could be because either the theory was inadequate, the method employed did not test the theory, there is actually no difference in male and female occupational choices, or some combination of these factors.

The unequal sex distribution in the occupational structure has been pointed out by many sources. Female workers are for the most part found in lower prestige and lower paying occupations than men. There are relatively few women professionals or managers of business. Discrimination has been suggested as a major factor in keeping the occupational structure essentially segregated. The sex segregation of occupations has had the support of cultural acceptance. More recently women's groups have pointed out the social inequalities and
laws have changed to permit a more equal system. Although discrimination may still play a part in the occupational distribution, to accomplish a more equal sex distribution women must also be willing to prepare for and enter occupations previously defined as masculine occupations. While it is recognized that not all "masculine" occupations are high prestige or high paying, most of the high prestige and high paying occupations are predominantly held by males and culturally defined as men's occupations.

Some of the occupations which are almost exclusively filled by men include such professions as doctor, lawyer, and engineer. These occupations also require specialized education for which early preparation helps to ensure entry into the field. Both males and females would need to start early preparing for occupations requiring special education or preparation.

In this chapter we will review the theoretical basis for this study, summarize the findings and attempt to explain the lack of support in these findings. This chapter will also include the limitations of this study, suggestions for further research and concluding statements concerning this study.

Review of the Theoretical Perspective

Cultural values determine the roles of people in the society. This includes the appropriate occupational roles. Traditionally most
high prestige and high paying occupations have been predominantly filled by men and hence are defined as inappropriate for females. The primary role of females has been traditionally and is yet today defined as wife and mother, while the primary role of the male is defined as "breadwinner." The roles of wife and mother have been seen as limiting the female in the degree to which she can be involved in the occupational structure.

Previous research has indicated that females expect to work most often in those occupations traditionally considered as female occupations, such as nurse, teacher, and secretary. According to Ginzberg, et al. (Osipow 1968), as girls approach the time to think about marriage, decisions about career are often set aside in favor of an anticipated marriage. While at an earlier age (around 11 or 12 years), both boys and girls make similar occupational choices, by age 17 and 18 girls are heavily oriented toward marriage and its implications.

The theoretical position taken in this thesis is that females are socialized to sex appropriate behavior. The wife and mother roles of women in society will structure the socialization of young girls in such a way as to exclude them from trying to enter some occupations. Because it was thought the mother would be a salient role model for the girl, the role played by the girl's mother in the occupational structure was considered a factor influencing the occupational choices of the
female students.

Findings

It was hypothesized that there would be a difference in the level of occupational choices between male and female students, older and younger female students, and between female students whose mothers work and those whose mothers did not work. To test these hypotheses data were collected from male and female students in grades six, eight, and eleven regarding their desired and expected occupational choices. A numerical value from the Duncan Scale (Reiss 1961) was assigned to each occupational choice to rank occupations by socio-economic status so that statistical comparisons could be made.

In the sample studied most students, both male and female, desired education beyond the college level and most, though a smaller proportion, expected additional education. The majority of female students indicated that they expected to work and most saw themselves as future married career women with children. This indicated that girls intend to work, are willing to prepare for an occupation, and expect to combine occupation with marriage and family.

The statistical analysis revealed no significant differences between males and females, among older and younger students, nor between girls whose mothers worked and those whose mothers did not work. The hypothesis that older girls would choose more tradi-
tionally accepted occupations than younger girls also was not statistically supported. However, a larger proportion of the sixth grade girls than the eleventh grade girls indicated that they desired and expected non-traditional occupations. For all grades the majority of girls did both desire and expect traditional female occupations. This indicated that most girls reflect choices of occupations that society supports as being appropriate for females. To this extent females are following the behavior patterns to which they have traditionally been socialized.

When examining the data on what they envisioned for themselves 15 years in the future nearly half (48%) selected the category "married career woman with children." The next largest category (33%) was "housewife with children." Thus these girls still give preferences for the traditional role of wife and mother although many have added another dimension of career to the role. We can only speculate on how they define their roles, since we did not ask why some occupations were selected. The role of successful career woman may no longer be defined as exclusive of the wife-mother role. Employment may be seen as necessary from a financial point of view as a means to fulfill the family roles. Employment for self-fulfillment may be the reason for indicating a career as desirable. There was no attempt to clarify the term "career" and we can only speculate the meaning imputed to it, so that it may be regarded as synonymous with occupation or it may also include the notion of a long-time commitment.
It was further hypothesized that mother as a role model would influence the occupational choice of female students in that girls whose mothers worked would have higher ranked occupational choices than those whose mothers did not work, and that the status level of the mother's occupation would be positively related to the level of occupational choices by the daughter. Neither of these hypotheses were supported. While the data was available to test these hypotheses in the form that they were written, the hypotheses may not be formulated in a way to test the effects of role model on the females' occupational choices. (See Limitation below)

Discussion

Although the hypotheses were not supported, this study does reveal differences in the occupational choices between males and females, and between older and younger girls. The large proportion of girls choosing traditional occupations supports that females are socialized in sex appropriate behavior which includes types of occupations that are appropriate for females. While the proportion of females in each grade desiring and expecting a traditional occupation are similar, the youngest group of girls in the study indicate a larger proportion of both desired and expected non-traditional occupations. While eleventh grade girls and eighth grade girls do indicate some desire for non-traditional occupations, a smaller proportion than the
sixth grade expect to obtain these jobs.

There are further differences in the distribution of occupations that may not show up in parametric statistics. The female occupational choices were essentially grouped in a smaller number of occupational categories than those of males. Additionally, their responses clustered in those occupations defined as traditionally female, such as teacher, nurse and secretary. Boys, however, chose occupations from a much wider range of occupations and these choices were more evenly distributed over the range of categories.

The graphs (Figure 5.1 and 5.2) indicate a distribution of occupations of male and female occupational choices. For both desired and expected occupational choices male and female choices are distributed in such a fashion that where male choices are most numerous female choices are found in relatively small proportion and conversely female choices are more frequently found where there is a low frequency of male choices. The use of parametric statistics assumes that the sample groups are from the same universe, and the statistical analysis was carried out with this assumption. However, these major differences in the distribution of occupational choices may render this assumption invalid.

The difference in the distribution of occupations may also be an artifact of the measurement scale. There is no adequate scale to compare male and female occupational choices. Since the primary interest
is in the status hierarchy of males most of the work has been done in this area. In addition to the obvious shortcomings in the measurement scale used (see Chapter III) of missing occupations and the grouping of occupations that actually represent a range of occupations, there is no way of telling if there is a difference in the ranking in a job occupied by a male or a female. According to Labor Department figures, females receive less income than males with the same occupational title. When viewing a particular occupation, for example, bookkeeper,
the sex of the job occupant may make a difference in the ranking of the occupation.

Because the measurement scale used in this study was constructed from census data which was reflective of income and educational levels of males in that category it may not be valid to apply it to females. The occupation listed typist received the rating reflected by the male secretary. This would inflate occupations that may realistically have a lower ranking. This may also be true of the occupational category of teacher, which included a large proportion of female respondents,
since we do not know if the numerical value is reflective of the actual ranking. Since female choices are grouped in a small number of categories any problem of inflating values is further increased.

In addition the measurement scale used is based on data almost 25 years old. This scale does not reflect changes in the occupational structure of new occupations, the possible change in education requirements or shifts in the income distribution. It is reasonable to assume that there have been the kinds of changes which would result in a reordering of the various positions.

To the extent that the measurement scale may obscure actual statistical differences in male and female occupational choices, together with the possibility that males and females constitute different populations, we may have not tested the hypothesis.

Implications of Hypothesis Testing for Theory

In this section we shall consider the impact of the hypothesis testing on the theoretical rationale of the hypotheses. We shall consider the rationale for each of the hypotheses and indicate the effect of the failure to find support for these hypotheses in the data. Since the first three hypotheses were based on the same rationale, they will be treated together. The fifth hypothesis is not discussed as it could not be tested. The last two hypotheses will also be treated together as they were based on similar rationale.
It was hypothesized that older female students would have lower ranked occupational choices than younger female students, and older male students would have higher occupational choices than younger male students. Further it was hypothesized that the difference between the rank of occupations would be greater between older male and female students than between younger female students. These hypotheses were not supported.

The theoretical basis for deriving these hypotheses was socialization to appropriate sex role behavior and occupational development theory. (Osipow 1968) Culture defines the appropriate sex role behavior including the appropriateness of occupational roles for the sexes. Children are socialized from birth to behave in sex appropriate ways. Occupational development theory indicates that about age 11 or 12 boys and girls will have similar occupational choices, but as girls approach the age of marriage the role of wife and mother become more salient. (Osipow 1968). Other research indicated that boys increasingly prefer higher status jobs with increasing education, while the reverse is true for girls. (Edlefsen and Crowe 1960)

The rationale on which the first three hypotheses was based is not supported by this study. A different specification of socialization theory would seem more productive to explain the lack of change over age for boys' and girls' occupational choices and to explain the lack of difference between these choices. The hypotheses, as
specified for this study, bear further testing; the underlying socialization theory seems to be adequate, but the specification of the rationale needs to be changed. The following are proposed as a better specification of rationale for these hypotheses.

Differential treatment according to sex begins in infancy. (Joffee 1971; Lynn 1971; Kagan 1964) Children are aware at a very early age of their sex identity. The same socializing process that brings awareness of one's proper sex identity also would include a variety of proper roles. The acceptable behavior of one sex is exclusive of the acceptable behavior of the other. Playing with certain toys or preferring a particular game that may be defined as more appropriate for boys does not mean that they cannot be appropriate for girls also. Sex role socialization includes a broad array of behaviors and expectations, some of which require more strict adherence than others. Some male type behavior may be sanctioned or rejected at a later time without changing the sex role identity of girls.

Since sexual identity includes proper role socialization and occupational roles are assigned culturally there is no reason to assume that girls would be confused at age 11 or 12 about the "proper" occupations to pursue. Socialization for appropriate occupational roles is probably so interwoven into the general socialization process that there may not be an age group that could be tested that would not know and reflect "proper" occupational roles according to sex. Increasing
knowledge of the existence of an occupation would probably indicate which sex occupies the role.

The approaching time of marriage does not mean that girls are suddenly aware of the primacy of the role of wife and mother. Girls are anticipating this role from a very early age and rehearse the role with "playing house" and other play activities at an early age. Along with the awareness and anticipation of this role is the anticipation or awareness that some women work outside the home and combine marriage with an occupation. This is knowledge available to the 11 and 12 year old female as well as the 17 year old.

To test adequately whether girls do change and lower occupational choices would probably require looking at an even younger group than this study, perhaps even preschool age children.

The occupational choices of boys have been shown to increase with increased education. (Edlefsen and Crowe 1960) Increased education could have different effects on various students. Those who have high success reflected in high grades may be reinforced to select occupations requiring further education with a high level of quality demanded, while those who have low grades may come to realize that they are limited in the kinds of occupations they may pursue. Boys' occupational plans may be more closely tied to ability and achievement in school, however, not all boys will go through school with a notion of increasing ability as this reasoning suggests.
What needs to be done is basic research that looks at occupational choices from an early childhood through adolescence, in an effort to determine the origins and effects of knowledge of "sex appropriate" occupations.

The third hypothesis concerning the increasing difference in level of occupational choices between boys and girls was derived from the logical extension of the two previous hypotheses. If there is not time when children are not influenced by the appropriateness of the occupational choices or if it is not appropriate to consider the rising and lowering levels of occupational plans in general, using only the independent variables of sex and age, then this kind of hypothesis may not be appropriate.

Hypothesis IV predicted that the older girls would indicate more traditional occupational choices than younger girls. This hypothesis was not supported. The rationale for this hypothesis was based on a developmental perspective that says girls will be involved in more "boy" type behaviors at an early age than at a later age, and the theoretical perspective that says boys and girls indicate similar occupational preferences at age 11 and 12 than at age 17. Since boys are less likely to indicate a preference for female behavior or roles then it is likely that similar job choices would be "men's" jobs. If approaching age of marriage includes more specificity of the traditional role then it would include a higher proportion of traditional
occupational choices for older girls than for younger girls.

As indicated in the discussion for the first three hypotheses, sex role socialization starts in infancy and by the end of sixth grade girls may already reflect the influence of appropriate sex role socialization in the understanding and selection of sex appropriate occupations. It may be inappropriate to assume that at age 11 or 12 girls begin separating sex appropriate occupations and would show a decline thereafter in the preference for predominately male occupations and an increase in preference for feminine occupations. Perhaps what we should be trying to explain is why any of the girls would indicate a non-traditional occupation.

Two hypotheses were formulated to test the influence of a working mother on the occupational choices of daughters: girls whose mothers work will have higher ranked occupational choices than those whose mothers do not work; and, girls whose mothers have higher ranked occupations will have higher ranked occupational choices than those whose mothers had lower ranked occupations. These hypotheses were not supported. The rationale for formulating these hypotheses consider mother as an important role model and mother's occupational role as an important influence in the occupational choices of girls by an extension of the findings of the relationship between father and son, and father and daughter occupational roles and mobility. The Broverman, et al. (1972), study shows that daughters of working mothers
perceive less role differentiation between men and women. Daughters of working mothers have seen the possibility of combining marriage and career, and thus it was predicted would be more likely to pursue a career. An increased expectation to pursue a career would increase the likelihood of preparing for a "better" occupation and a greater interest in the work world, thus minimizing the viewing of work as only a short term and relatively unimportant pursuit until marriage.

The rationale on which these hypotheses is based is not supported and it is suggested that the rationale takes too simplistic a view of the mother as role model. This suggests that the influence of role models is much more complex than stated previously. Girls come into contact with many working females, many who may have a more desirable role than that occupied by the mother. The occupational role is only one of several roles occupied by the mother. The combination of roles with the possibility of role conflict may be interpreted by the daughter as a difficult situation to handle. The relationship between the occupation of mother and the daughter's occupational choice may be a negative relationship. Therefore, it may not be appropriate to consider only one of mothers' roles when looking at the influence on the daughters' occupational choices.

Another influence affecting the level of choice is the idea of relative deprivation. If a mother works in a lower ranked occupation, then girls may "want something better" and indicate a preference for
a higher level of occupation than might otherwise be expected.

This rationale of role model is too limited and it is suggested that a more inclusive theoretical model needs to be formulated to consider the influence of other people influencing occupational choices. While it is accepted that mother is an important role model, the possibility of other role models and significant others could better explain the pattern of occupational choices. It may also be useful to consider the combination of mother's and father's occupational roles since the combination of roles may more accurately reflect the status and influence of the family.

Limitations of the Study

It was hypothesized that the mother's occupational role would influence the occupational choices of the female students. Of the 260 females surveyed, there were 146 with working mothers. There was no significant difference between the choices of girls whose mothers worked and those whose mothers did not work. It was also hypothesized that the rank of the mother's occupational choice would influence the level of occupational choices by the daughter. Again this hypothesis was not supported.

While the data that were collected tested the hypothesis it became apparent while working with the data that the hypothesis did not adequately meet the intent of the study. It is reasonable to assume that the
mother is a relevant role model and that the roles fulfilled by the mother will influence decisions made by the daughter. The questionnaire asked only for the mother's current employment status. This excludes mothers who would normally be working but for some reason were unemployed at the time the questionnaire was administered. To investigate the influence of the mother as a role model on the choices of daughters we may need to know more about the mother than was collected for this study.

It is also likely that the female students had other role models in addition to or instead of their mother. Evidence may be found in the high number of choices for teacher. To understand the relationship of a role model to the occupational choices of girls we would need to know who the role models are and the importance they hold for the female student.

The girls in the study were asked how they saw themselves 15 years in the future. Among the responses were references to "career." It is reasonable to expect that "career" would have several meanings to the respondents that may range from a lifetime pursuit of a professional occupation to part time or short term employment of any available job. The questionnaire uses both the terms of occupation and career without specifying a difference in meaning. This could add confusion to the kind of information desired from respondents.

It is also recognized that although distinctions are being made
by the research that the respondents are not making a distinction between the two terms. It would have been useful to clarify what students understood as a career and then how long they wanted to work and at what stage of life.

A question was asked (Question 19), "How long do you think you will stay at this job?" This question did not specify what job, or at what point in the respondent's life the job would be pursued. The question followed two questions asking for occupational choices and it is unclear which occupation it refers to. Some of the occupations required more training or education. It is impossible to tell if the question refers to part time summer work prior to the anticipated college enrollment or if it refers to an occupation which will be pursued at a later point in life.

Another question (Question 20) asked for the conditions under which it would be all right for a wife to work. The categories listed are not exclusive categories nor do they include enough categories. This is further complicated by instructing the respondents to "check one." This might better have been asked in two parts, one asking whether wives should work or not, and second under what conditions should a wife work.

When assigning occupations a numerical ranking according to income and education we may be overlooking a very important variable in the occupational choices of females. We have taken into considera-
tation whether or not an occupation is sex-appropriate, but we have not considered whether it is class-appropriate. Some occupations such as office worker, stenographer or secretary may be relatively low paying occupations as compared to some industrial jobs, yet may be preferred because they are regarded as appropriate occupations for middle class women. Historically women worked out of economic necessity, but there were few if any occupations for the middle class female. This may still be an implicit consideration being made by females who anticipate working outside the home.

Finally, because of the limitations of this sample the results may not be generalizable to a larger population. This sample included only three grades, sixth, eighth, and eleventh from a limited number of public schools in the Grand Rapids school system. Additionally, only 49 percent of the school age populations are enrolled in the public school system. (DeBlay 1970) Students are not randomly assigned to these schools and selectivity factors may introduce unknown bias.

Suggestions for Further Research

First, because of the difficulties incurred with the Duncan measurement scale in this study, research is urgently needed to test existing occupations ranking scales or to construct new ones which reflect more accurately the current occupational structure, and the position of female occupants of occupations within the occupational structure. This is needed for more accurate statistical testing, and,
more importantly, for better understanding of the occupational structure. At the present there appears to be no satisfactory scale for comparing female occupations, or females in occupations that are traditionally held by men.

Studies are needed to determine the various factors which influence career or occupational choices of females. The position taken in this study indicated that socialization to the female role and mother as a role model were the major factors. Although mother is an important role model, it is likely that she is not the only role model. A more inclusive study is needed to investigate the influence of mother and other role models and significant others who have a part in the shaping of the perception of appropriate occupations and influence the patterns of occupational choices.

It is also suggested that occupational socialization is part of more general sex role socialization and probably children are aware of "proper" occupational roles at a very early age. Research is needed which looks at children from an early age, perhaps preschool, through adolescence to investigate whether the differences in the kinds of occupations anticipated vary with age and sex of the child.

The findings of this study show that most girls indicated occupational choices reflective of those occupations traditionally thought of as being female occupations. Considering that sex role socialization would define traditional occupations as most appropriate it is suggested
that a study be made to determine the causes and patterns which lead to non-traditional occupational choices.

Social class may have more implications than are usually considered. For determining male social class, the occupation is taken as an indicator. According to Duncan (Reiss 1961), there is a relationship between income, occupation and education. This may not be true for employed women. An occupation, such as secretary, may be class appropriate but not income or educationally appropriate. Further research is required to determine the extent to which women choose occupations which are class appropriate without considering other aspects of that occupation such as income.

Finally, much of the work done in regard to female occupations has been in relation to specific occupations. This is not particularly useful when trying to determine why some people are selected out of specific occupations. Therefore, it is suggested that longitudinal studies be made to research the process by which people are channeled into occupations.

Conclusion

In the problem statement in Chapter I it was indicated that females were overrepresented in low status and low paying occupations and underrepresented in high status, high income occupations. It was also stated that while sex discrimination practices may play a part in
job distribution, females need to perceive the availability of particular occupations and prepare for them in order to change the sex distribution of the occupations.

Culture defines sex appropriate roles including occupational roles. Sex role socialization and a developmental theory of occupational choice would seem to indicate that there is a difference in the level of occupational choices between males and females, younger and older female students, and that a working mother as role model will influence the occupational choices of daughters.

This study has attempted to answer several questions. The first question is to what extent females desire and expect to obtain jobs which are high prestige and high pay. Second, do their choices differ from boys in the same grade level. Statistically there is no difference between the mean desired or expected occupational levels of males and females; however, further examination of the data shows that females do not in general desire or expect the same kinds of occupations as males. There is only slight interest shown by females in such high prestige occupations as medical doctor, dentist, lawyer, engineer, college professor and scientist. The majority of girls both desire and expect to obtain these occupations traditionally defined as appropriate female occupations. These choices are clustered in a small number of occupations including nurse, secretary and teacher. Male occupational choices are more evenly distributed over a wider number of occupations.
While females do not choose high prestige occupations, neither do they desire or expect low prestige occupations to any greater extent than males.

The second question asked if the occupational choices of female students differ at different grade levels. It was found that there is no difference in the level of occupations desired or expected by younger or older girls. Younger girls desire and expect to enter traditional occupations to the same extent as older girls. Younger girls do desire and expect non-traditional occupations more than older girls, but girls in each grade desire non-traditional occupations to a greater extent than they expect to obtain such jobs.

The final question to be answered is the extent to which a working mother makes a difference in the occupational choices of daughters. The hypothesis stated that females with working mothers would have higher occupational choices than those whose mothers did not work. There was no support for this hypothesis, nor for the hypothesis which stated that the higher the level of mothers' occupation, the higher the level of the occupational choices of daughters.

The implications of these findings would indicate that this study did not include a wide enough age range to see any change in patterns between younger and older students. It was further suggested that the developmental theory indicates an early similarity of occupational choices with a subsequent diverging of occupational interests according
to sex differences may not accurately portray the socializing process. The influence of the working mother is perhaps too narrow an interpretation of the influence of role model and should be expanded to include other possible role models and significant others.

A large proportion of females indicate a desire and an expectation for education beyond high school, but very few desire or expect advanced college degrees, a necessity for many of the highest paid and most prestigious occupations. A majority of the female students also indicate that they plan to work, often stating that they will combine a career with marriage and family. The girls in this study then in general expect to work, plan to obtain further education, but do not anticipate pursuing high prestige and high paying occupations. This would seem to indicate they will contribute to the maintenance of the present sex distribution of occupations.
Appendix A

Questionnaire

Name of your school__________________________________________

1. What is your age? Check one.
   1. ___ 12 years old or under
   2. ___ 13 years old
   3. ___ 14 years old
   4. ___ 15 years old
   5. ___ 16 years old
   6. ___ 17 years old
   7. ___ 18 years old
   8. ___ 19 years old
   9. ___ 20 years old

2. What is your sex? 1. ___ male 2. ___ female

3. What curriculum are you enrolled in? Senior high students.
   1. ___ None
   2. ___ College Prep
   3. ___ Business
   4. ___ Home Economics
   5. ___ Vocational
   6. ___ General
   7. ___ Other, specify what____________________________________

4. How many brothers and sisters do you have?
   1. ___ number of brothers older
   2. ___ number of sisters older
   3. ___ number of brothers younger
   4. ___ number of sisters younger
   5. ___ total

5. How many years of schooling did your father complete? Your
   mother? Check the highest grade level completed.
   Father (check one) Mother (check one)
   1. Some grade school
   2. Completed grade school
   3. Some high school
   4. Completed high school
   5. Special school but not college
   6. Some college
   7. Completed college
   8. Advanced college degree
   9. Other, explain what ______
6. What kind of work does your father do? _____________________________

7. What is the title of his job? ________________________________________

8. Where is your father employed? ________________________________

9. What kind of place is this? Check one.
   • 1. ____a factory
   • 2. ____an office
   • 3. ____store
   • 4. ____hospital
   • 5. ____other, explain what __________________________

10. Does your mother work outside the home for money?
    • 1. ____no (if no, skip questions 11, 12, 13 & 14)
    • 2. ____yes

11. If your mother works, what kind of work does she do? _________

12. What is the title of her job? ______________________________________

13. Where is your mother employed? ________________________________

14. What kind of a place is this? Check one.
    • 1. ____a factory
    • 2. ____an office
    • 3. ____store
    • 4. ____hospital
    • 5. ____other, explain what __________________________

15. How far would you like to go in school? Check one.
    • 1. ____Quit now
    • 2. ____Go to high school for awhile
    • 3. ____Graduate from high school
    • 4. ____Go to school to be a secretary or learn a trade
    • 5. ____Go to college for a little while
    • 6. ____Graduate from college
    • 7. ____More than 4 years of college

16. Sometimes what you expect to do isn't the same as what you would like to do. How far in school do you really expect to go? Check one.
    • 1. ____Quit now
    • 2. ____Go to high school for awhile
    • 3. ____Graduate from high school
    • 4. ____Go to school to be a secretary or learn a trade
    • 5. ____Go to college for a little while

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6. _____ Graduate from college
7. _____ More than 4 years of college

17. If you could have any job, which one would you like to have after you finish school? _______________________________________________________________________

18. Sometimes the job you get is not the job you wish for. What kind of job do you think you will get after you finish school? __________

19. How long do you think you will stay on this job? Check one.
   1. _____ Less than one year
   2. _____ One to two years
   3. _____ Three to five years
   4. _____ More than five years

20. Under what circumstances do you think it would be all right for a wife to work? Check one.
   1. _____ If she has no children
   2. _____ If all of her children are in school
   3. _____ If her family needs money regardless of the age of her children
   4. _____ If she wants to, regardless of the age of her children
   5. _____ She should not work unless the family needs the money
   6. _____ She should not work away from the home at all
   7. _____ Other, please explain ____________________________

21. For females only. Fifteen years from now I would like to be, check one.
   1. _____ unmarried career woman
   2. _____ housewife with no children
   3. _____ housewife with children
   4. _____ a married career woman with no children
   5. _____ a married career woman with children
   6. _____ other, please explain ____________________________

22. At the present I am, check one.
   1. _____ not dating
   2. _____ dating
   3. _____ going steady
   4. _____ engaged or have an "understanding"
   5. _____ married
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