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AN ANALYSIS OF
THE LEVELS OF EDUCATIONAL ATTAINMENT OF THE
POPULATION 25 YEARS OF AGE
AND OVER IN MICHIGAN IN 1960

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
Anne Louise Berkey
1965

THESIS



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ABSTRACT

AN ANALYSIS OF

THE LEVELS OF EDUCATIONAL ATTAINMENT

OF THE POPULATION 25 YEARS OF AGE AND OVER

IN MICHIGAN IN 1960

by Anne Louise Berkey

Body of Abstract

One tenet of the "American Dream" would have it that everyone has an equal opportunity for education and those who do not obtain the necessary education have not taken advantage of their opportunities. However, in actuality, differences do exist.

This study is concerned with some of the differences in the educational attainment of the adult population in Michigan in 1960. The primary focus is on differences by residence and by sex.

The data utilized in this study came from unpublished 1960 Census sources which emerged from additional programming of questions reported in the 1960 Census volume entitled General Social and Economic Characteristics. Census data utilized in this study were based on a 25% sample of Michigan's population 25 years of age and over and data were given for males and females, whites and nonwhites, and the rural-farm and nonfarm populations. (Rural-nonfarm and urban made up the nonfarm category.). Data for nonwhites were not used throughout the study since some counties have no nonwhites and others have very few.

Since educational level attained decreases with increasing age, proportions of the population completing various levels are influenced in varying degrees by age structure. Because of this the data were standardized for age for the white population of each SEA using the white male and female populations of Michigan as a base.

Using data on median years of school completed for those 25 and over in each county, it was found that generally females have higher levels of educational attainment than males.

Using percentages of whites and nonwhites 25 years old and over in each level of schooling in each SEA, it was found that levels of educational attainment were generally lower for nonwhites than for whites regardless of sex.

In analyzing the first hypothesis, standardization for age served to reduce the range in completion levels among the 18 SEA's in Michigan. Both the actual and standardized data supported the hypothesis that levels of educational attainment are generally higher for the nonfarm population than for the farm population for each sex.

Standardized data were not used in the analysis of the second hypothesis. The actual data supported the hypothesis that levels of educational attainment are generally higher for rural-farm females than for rural-farm males while levels of educational attainment are generally higher for nonfarm females than for nonfarm males except that more nonfarm males than nonfarm females have completed one or more years of college.

AN ANALYSIS OF
THE LEVELS OF EDUCATIONAL ATTAINMENT
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IN MICHIGAN IN 1960

By

Anne Louise Berkey

A Thesis

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Sociology

1965

Dedication
To my husband, Art

Acknowledgements

The author wishes to express appreciation to the members of her committee, Dr. J. Allan Beegle, chairman, Dr. Duane L. Gibson, and Dr. Charles R. Hoffer. Special thanks are due to Dr. Beegle for his interest, his many useful suggestions, and his unselfish willingness to help at all times.

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Chapter 1

Introduction

This study is concerned with differentials in educational attainment of the adult population. The analysis of differentials is limited to the state of Michigan and to one point in time, 1960. This study focuses primarily upon two types of differentials in attainment, namely, differentials by residence and by sex. While some interest also is attached to differences between the State Economic Areas (SEA's) and to differences according to color, the primary focus centers upon the white adult population.

The data utilized in this study derive from the 1960 Census of Population. They come from Census sources but emerge from additional programming of questions reported in the 1960 Census Volumes entitled General Social and Economic Characteristics. Hence, the data used here have not been published as a part of the 1960 program of publication.

Background and Justification

One dimension of the "American dream" asserts that through education the American democratic way of life can be preserved and perpetuated. Theoretically everyone has equal opportunity for an education and those who do not obtain the necessary education have not taken advantage of their opportunities.

Perhaps the overall success in the education of the masses can be attributed to the "American dream" concerning education. In the words of Folger and Nam: "In half a century this nation had achieved an educational objective that no country had before achieved--and few, if any, are likely to achieve in the near future."¹

¹ John K. Folger and Charles B. Nam. "Educational Trends from Census Data," Demography, 1 (1964), 252.

The level of educational attainment has been continually rising in this country and most predictions indicate a continuation of this trend for several decades. In the twentieth century there has been both a major increase in the proportion of children starting school and a persistent upward trend in the proportion of children remaining in school after passing the age of compulsory school attendance.

Nearly all children between the ages of 7 and 14 are now attending school since the laws of almost every state compel attendance at these ages. There is a continuing trend toward an ever increasing proportion of children completing high school and also a tendency for a larger share to go on to college.

The following table for Michigan supports the above statements.

Table 1. School Enrollment, by Age for Michigan, Urban and Rural: 1960²

Age	The State %	Urban %	% Rural Nonfarm	Rural Farm %
Total 5 to 34	56.5	56.2	55.4	65.1
5 and 6	83.9	84.8	81.4	81.6
7 to 13	98.2	98.3	98.0	98.6
14 and 15	95.8	95.8	95.3	96.9
16 and 17	84.7	85.0	82.8	88.1
18 and 19	44.2	46.6	35.9	42.2
20 and 21	21.7	25.8	9.6	8.9
22 to 24	10.8	12.9	5.2	4.1
25 to 34	4.5	5.1	2.9	2.0

Table 1 shows that nearly all children aged 7 to 13 are enrolled in school and the vast majority of those 5 to 17 are enrolled. After age 17 the percentage enrolled in school declines sharply. It should be noted that from ages 7 to 17 there is a higher proportion of rural-farm than of either urban or rural-nonfarm children enrolled in school. At ages 5 and 6, the proportion of rural-farm enrolled

²United States Census of Population 1960, Michigan General Social and Economic Characteristics, PC(1) 24C, p. 190.

is higher than the rural-nonfarm although lower than the urban.

In earlier decades school attendance for most persons was completed before they were 20. However, in recent years, many persons in their late 20's or 30's are still attending school perhaps because of the emphasis now placed on postgraduate study.

The educational level of adults of an age cohort is fairly constant. Throughout American history each cohort has tended to be somewhat more educated than the cohort before it. Thus, at any given time, youth have more education than the middle aged while the middle aged have a higher attainment than the aged.³ Because of this, some of the data in this study have been standardized for age.

This increase in educational attainment can also be seen within occupations where the rise in the educational level of the workers is a much more important factor than the change in the occupational structure of the labor force. During the past few years professional, technical and managerial people have displaced the blue collar workers as the largest group in the American working population. Signs point to a greater growth of this group in the future and job opportunities in many areas are readily available to people with high educational levels.⁴

Today the trend toward fewer and fewer jobs for the unskilled and uneducated can be seen in the group of unemployed which is predominantly composed of those with little formal education. High school graduation is an increasingly important influence in early job placement and a person's initial job is a good indicator of his subsequent occupational career. "A high school diploma may be not so much a qualification for many jobs as the lack of a diploma may be a disqualification."⁵

The importance of the level of schooling is seen in that educational attainment is highly correlated with occupation, income,

³Conrad Taeuber and Irene B. Taeuber. The Changing Population of the United States, New York: John Wiley & Sons, Inc., 1958, p. 195.

⁴W. B. Brookover, "Educational Policies and Educational Practices," paper presented at the University of Mississippi, p. 2.

⁵James D. Cowhig. "Early Occupational Status as Related to Education and Residence," Rural Sociology, 27(1962), 21.

status or social position in the community, economic and social mobility, certain buying habits, many attitudes and opinions, and a great variety of other elements in human life.

According to the "American dream" there should be equality of educational opportunities and the uneducated and unskilled are so because they did not take advantage of their opportunities. Increased education with succeeding generations would produce different levels of educational attainment between different age groups but within an age group there should be no difference in educational attainment among different segments of the population.

However, in actuality many differences do exist. Existing differences include those between regions, social classes, status groups, males and females, whites and nonwhites, rural and urban populations, between states and within states.

The following tabular data summarize some major group differences in the educational attainment in the United States.

Table 2: Median Years of School Completed in the United States: 1940, 1950, 1960 and in Michigan: 1960

	United States			Michigan
	1940	1950	1960	1960
Total	8.6	9.3	10.6	10.8
Male	8.6	9.0	10.3	10.4
Female	8.7	9.6	10.9	11.1
White	8.7	9.7	10.9	11.0
Male	8.7	9.3	10.7	10.6
Female	8.8	10.1	11.2	11.1
Nonwhite	5.8	6.8	8.2	9.1
Male	5.4	6.4	7.9	8.7
Female	6.2	7.2	8.5	9.6

Source: United States Statistical Abstract of 1963 and United States Census of Population 1960, Michigan General Social and Economic Characteristics PC(1) 24C. p. 191.

Table 2 shows a higher median attainment for females than males and for whites than nonwhites in each category, for all three years, and for both Michigan and the United States as a whole. In each category the median attainment of Michigan's population is higher than the median national attainment.

Of the many differences that exist, the present study attempts to analyze the data and present some explanations for the differences in educational attainment between males and females, whites and nonwhites, rural-farm and nonfarm, and between various areas within the state of Michigan as of 1960. While much of the literature deals with educational levels in various ways, none has done what this study attempts to do, certainly not for Michigan.

With increasing demands for specialized training, with changing occupational structure, with a long history of rural-urban migration, and with demand for education in agriculture, what are the present differentials between males and females and between rural-farm and nonfarm residents? What is the situation when a given population is adjusted for age?

Methodology

The data in this study are based on a 25% sample of Michigan's population 25 and over and are derived from the following Census questions:⁶

What is the highest grade (or year) of regular school this person has ever attended?

(Check one box).

If now attending a regular school or college, check the grade (or year) he is in. If it is in junior high school, check the box that stands for that grade (or year).

⁶United States Census of Population 1960, Michigan General Social and Economic Characteristics, PC(1), 24C, p. XV.

Never attended school	☐							
Kindergarten	☐							
Elementary School (Grade)	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐	8 ☐
High School (Year)	1 ☐	2 ☐	3 ☐	4 ☐				
College (Year)	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 or more ☐		

Did he finish the highest grade (or year) he attended?

Finished
this grade

Did not finish
this grade

Never attended
school

Before describing the methodology used in this study, it is necessary to define some of the terms used.

According to the 1960 Census, "the urban population comprises all persons living in urbanized areas and in places of 2,500 inhabitants or more outside urbanized areas."⁷ "The rural population, which comprises all rural residents living on farms, and the rural-nonfarm population, which comprises the remaining rural population. In the 1960 Census, the farm population consists of persons living in rural territory on places of 10 or more acres from which sales of farm products amount to \$50 or more in 1950 or on places of less than 10 acres from which sales of farm products amounted to \$250 or more in 1959."⁸

In this study the rural-nonfarm and urban populations have been combined into the nonfarm category. Hence, the residence components used in this study refer to the rural-farm versus nonfarm populations.

"SEA's are relatively homogeneous subdivisions of States. They consist of single counties or groups of counties which have similar economic and social characteristics."⁹ "In the establishment of SEA's factors in addition to industrial and commercial activities were taken into account. Demographic,

⁷United States Census of Population 1960, Michigan Detailed Characteristics, PC(1) 24D, p. VII.

⁸Ibid, p. VIII.

⁹United States Census of Population 1960, State Economic Areas, PC(3)-1A, p. IX.

climatic, physiographic, and cultural factors, as well as factors pertaining more directly to the production and exchange of agricultural and nonagricultural goods, were considered....Areas of this type are well adapted for use in a wide variety of studies in which State data are neither sufficiently refined nor homogeneous and in which the manipulation of county data presents real difficulty."¹⁰

The median number of school years completed is that number which divides the population equally with one-half having higher and one-half lower completion levels. In this study, median years of school completed by males and females, white and nonwhite nonfarm and white rural-farm by county in Michigan were taken from unpublished Census data.

A much more adequate measure of educational attainment than median years of school completed is a percentage distribution which shows what proportion of the population has completed each level of schooling. Percentages having completed no school years, 1 to 8 years of elementary school, 1 to 3 years of high school, 4 years of high school, and one or more years of college for males and females, whites and nonwhites, rural-farm and nonfarm for each county in Michigan were calculated from unpublished Census data. Data for rural-farm nonwhites were not used in this study because there are very few rural-farm nonwhites in Michigan.

It would be too complicated and probably not very meaningful to use attainment categories listed in the Census. The categories mentioned in the above paragraph seem most meaningful for this study from a social and economic standpoint.

It is relatively easy to imagine the social and economic plight of a person who has never attended school. Whether a person has completed three or six years of elementary school would make little difference to an employer, and a person who has completed some high school is in a relatively better position than someone with only an elementary school education. High school graduation is increasingly a requirement for more and more jobs and some college training places one

¹⁰ Ibid., p. X.

in an even better social and economic position. Although more and better opportunities are available for the college graduate than for the person who has not finished college, only one category for one or more years of college was used in this study. Eckland and others for instance, have found that a large proportion of those who drop out of college eventually return and many of those who return graduate.

The following categories were used in the unpublished Census data:

- 0: no school years completed
- 1: elementary 1 to 4
- 2: elementary 5 and 6
- 3: elementary 7
- 4: elementary 8
- 5: high school 1 to 3
- 6: high school graduation
- 7: college 1 to 3
- 8: college 4 or more

Categories 1 to 4 were combined to obtain numbers completing 1 to 8 years of elementary school and categories 7 and 8 were combined to obtain the number having completed one or more years of college. All categories were added to obtain a total for the county and percentages were calculated from this total.

Numbers in each category of the counties were then added to obtain the numbers in each category for each of the 18 SEA's. From totals for each SEA percentages for each of the categories of the SEA's were finally calculated.

Total numbers and percentages for the whole state were calculated in the same manner from Table 47, p. 191 of the United States Census of Population: 1960, Michigan General Social and Economic Characteristics.

Since educational level decreased with increased age, proportions of the population completing various levels are influenced by age structure. Therefore, we have the problem of how to standardize for age differences in areas so that we can say, for example, if Area X had an age composition like that of the state of Michigan, then Y percent would have completed high school and other levels.

An attempt was made to solve the problem by using what Barclay calls "indirect standarization"--applying a standard set of rates to different populations by age. The object was to calculate the number in each age group of each SEA having completed high school and the other levels, on the basis of the number in each age group of Michigan having completed high school and the other levels.

The two standard populations used were Michigan white males and Michigan white females 25 and over in each age category 25 to 29, 30 to 34 up to 75 and over having completed each of the levels of schooling as of 1960.

Areas to be standardized were the white populations, males and females, rural-farm and nonfarm residing in the 18 SEA's in Michigan. Hence, 72 sets of "corrected" school completion rates were computed in this study.

The following formula was used:

$$\frac{\text{number in age group of Michigan white males (or females)}}{\text{number in that age group completing specified level of schooling}} : : \frac{\text{number in age group in SEA of white males (or females)}}{X \text{ (Number finishing specified level of schooling)}}$$

To obtain the number in each age group of Michigan white males and females, nonwhites were subtracted from the state totals in each age category listed in Table 103, p. 394 in United States Census of Population 1960, Michigan Detailed Characteristics.

To obtain the number of white males and females in each age group finishing high school and the other levels, nonwhites were subtracted from the total state population. Census categories were combined where necessary. For example, 1,2, and 3 years of high school were combined into one category. Calculations were done using data from Table 103, p. 394 in United States Census of Population 1960, Michigan Detailed Characteristics.

The number of white males and females, rural-farm and nonfarm, in each age group in each SEA was obtained by subtracting nonwhites from the total population. In each area urban and rural-nonfarm were combined to obtain the nonfarm population. Calculations were done

using the data from Table 5, Pp. 219-224 in United States Census of Population 1960, State Economic Areas.

When all of these operations were done, the problem was solved for x--the number of white males and females in each age category of each SEA finishing high school and the other levels. Totals and percentages were then calculated for each level of schooling in each SEA. The standardized data can now be compared with the actual data.

Statement of Hypotheses

A brief statement of the hypotheses to be tested in this study is mentioned here. Amplification will occur in Chapter 3 where the hypotheses are analyzed.

1. Levels of educational attainment are generally higher for the nonfarm population than for the farm population regardless of sex.

2. Levels of educational attainment are generally higher for rural-farm females than for rural-farm males. Levels of educational attainment are generally higher for nonfarm females than for nonfarm males except that more nonfarm males than nonfarm females have completed one or more years of college.

Limitations of the Study

The following are among the main limitations as viewed by the author:

1. The data in this study were obtained from the 1960 Census and the situation has undoubtedly changed in the last five years. The data are for the population 25 and over. This could distort the picture of educational attainment somewhat because for some people, schooling is finished at age 14 while others are still going to school at age 40.

However, the use of Census data has advantages. The data are obtained from a superior random sample and those who gathered the data were very carefully trained.

2. It should be noted that some people over 25 will eventually return to school and complete higher levels of education.

3. The literature referred to in this study may provide quite adequate explanations for the educational aspirations and attainment of

youth today but these explanations may be inadequate when considering the population 25 and over and particularly those at the upper age levels.

4. Some of the literature referred to in this study was based upon the 1950 Census. It should be noted that there was a change in the Census definition of rural-farm in 1960.

5. The data in this study are broken down only into rural-farm and nonfarm residence categories. It might be more meaningful to have it broken down into rural-farm, rural-nonfarm and urban. Some Census data combine rural-farm and rural-nonfarm in a rural category while the data used in this study combined urban and rural-nonfarm to make a nonfarm category.

6. It was difficult to provide explanations for the findings from the literature since most of the studies were concerned with high school dropouts, whether students were planning on going on to college, and what their aspirations were, but few studies were concerned with educational attainment. Of these studies more had male subjects than female.

7. The fact that no other studies were found that attempted to analyze and explain existing differences in educational attainment among various segments of the population had both advantages and limitations.

Among the advantages were the lack of restrictions or confinement placed upon this study by the methodology or procedures used in other studies. Nor were there problems of duplication, interpretation or comparison of another's work with the present study. Limitations included the fact that there were no guidelines to follow, many of the limitations were unknown, and no other identical studies were available for comparison.

Order of Presentation

Chapter 2 provides background statements for the hypotheses. Levels of educational attainment for rural-farm white males and females and nonfarm white and nonwhite males and females are discussed using medians for each county. The attainment of nonfarm white and nonwhite

males and females is examined using percentages in each level of schooling category for each SEA. Possible explanations for the findings are suggested from the literature.

Chapter 3 analyzes the hypotheses and attempts to provide some explanations for the findings from the literature. The findings, calculated from unpublished Census data, consist of the percentages in each level of schooling in each SEA as compared with the age control data in Hypothesis 1. The age control data is not utilized in Hypothesis 2.

Chapter 4 summarizes and concludes the study and presents suggestions for future research.

Chapter 2

Educational Attainment: The Situation

This chapter provides a background for the hypotheses to be tested in this study. We first examine levels of school enrollment and educational attainment for males and females and then for whites and nonwhites in Michigan. Enrollment data relate to the population aged 5 to 34 years and the educational attainment data are for the population 25 years of age and over in Michigan as of 1960.

Male-Female Differences

Many writers on this subject have stated that enrollment rates are consistently higher for girls than for boys up to ages 14 or 15. However, at ages above 17 years, a much higher proportion of males than of females are enrolled in school.

The following table indicates that this situation as of 1960 may have changed somewhat.

Table 3 shows that a higher proportion of males than of females between ages 5 to 34 were enrolled in school in 1960. In each residence category the differences in the proportions of males as compared to females enrolled was very slight from ages 5 to 17. At these ages there was slight variation among residence groups as to whether a higher proportion of males or females was enrolled at a given age. The greatest consistency was the variation between sexes and among residence groups. Only at age 12 was there a higher proportion of females than of males enrolled in each of the residence groups, and at age 15 a higher proportion of males than of females in each residence group was enrolled.

From ages 18 to 34 a substantially higher proportion of males than of females were enrolled in all residence groups except the rural-farm where differences in the proportions of males as compared to females enrolled were, relatively speaking, not as great. At ages 30 to 34 in

Table 3: Percentage Enrolled in School for Persons 5 to 34 Years Old, by Single Years of Age by Sex and Residence for Michigan in 1960.¹

Age	The State		Urban		Rural-Nonfarm		Rural Farm	
	M	F	M	F	M	F	M	F
5-34	59.3	53.8	59.5	53.1	57.0	53.7	65.7	64.5
5	71.0	71.4	73.0	73.0	66.0	67.1	63.3	66.1
6	97.0	96.9	97.0	97.1	97.1	96.2	96.1	97.1
7	98.4	98.4	98.4	98.5	98.2	98.3	98.4	98.6
8	98.5	98.5	98.6	98.5	97.8	98.5	99.1	98.7
9	98.4	98.4	98.5	98.5	98.3	98.2	98.7	98.4
10	98.3	98.4	98.4	98.5	97.7	98.2	99.1	98.4
11	98.4	98.2	98.4	98.3	98.2	98.0	98.4	98.7
12	97.8	98.3	98.0	98.2	97.2	98.3	98.3	99.2
13	97.5	97.7	97.5	97.8	97.0	97.4	98.5	98.0
14	96.2	96.5	96.2	96.6	95.6	96.2	97.5	97.1
15	95.3	95.1	95.3	95.2	94.8	94.4	96.8	96.2
16	89.1	89.3	89.9	89.6	86.5	86.7	90.6	93.0
17	81.9	78.7	82.2	78.5	80.1	77.8	84.0	84.2
18	60.9	46.4	63.2	47.2	55.6	40.8	55.8	54.8
19	40.9	27.1	46.5	30.7	27.7	13.7	26.0	17.5
20	30.7	18.5	36.5	21.8	16.0	7.2	13.5	6.5
21	26.0	13.9	31.9	16.5	10.8	5.5	7.6	5.3
22	20.3	7.3	24.4	8.8	10.2	2.7	5.5	5.0
23	16.7	5.0	20.2	5.8	7.5	2.6	5.2	3.1
24	13.8	4.1	16.7	4.7	6.2	2.4	3.3	1.8
25-29	9.4	3.2	10.9	3.5	5.0	2.2	3.3	1.9
30-34	4.0	2.1	4.4	2.2	2.7	1.9	1.4	1.8

¹United States Census of Population 1960, Michigan Detailed Characteristics, PC(1)240, Pp. 382-389.

the rural-farm population, a slightly higher proportion of females than of males were enrolled. From ages 19 to 34 the State as a whole and the urban population had substantially higher proportions of males and females enrolled in school than did the rural-farm and rural-nonfarm populations.

These enrollment data suggest that in the future there will be smaller proportions of the total population who have only an elementary school education than there are today. The data also indicate that there may be a change in the differential attainment of males as compared to females particularly at the lower attainment levels.

Several writers have stated that in 1960 levels of educational attainment were generally higher for females than for males regardless of color or residence, if judged by high school graduation. This is supported by the following median years of school completed for the United States and Michigan in 1960.

United States	
Total male	10.3
Total female	10.9
White male	10.7
White female	11.2
Nonwhite male	7.9
Nonwhite female	8.5
Michigan	
Total male	10.4
Total female	11.1

Source: United States Statistical Abstract of 1963.

This table shows higher educational attainment for females than for males in each of the categories. The statement that females generally have higher attainment levels than males is also shown for Michigan counties in unpublished Census data. See Table 4.

Table 4 shows that in the white rural-farm population in 82 of the counties, females had higher median attainment than males and in one county, Ontonagon, males and females had equal attainment; in the white nonfarm population females had higher attainment in 81 counties,

Table 4: Median School Years Completed by the Population 25
and Over in Michigan by County: 1960

County	Rural- Farm White Males	Rural- Farm White Females	Nonfarm White Males	Nonfarm White Females	Nonfarm Nonwhite Males	Nonfarm Nonwhite Females
Alcona	8.4	9.9	9.1	10.8	7.4	4.6
Alger	8.4	8.8	8.8	10.2	7.2	8.0
Allegan	8.7	9.4	9.6	10.6	8.5	8.8
Alpena	8.2	8.7	9.5	10.6	---	---
Antrim	8.8	9.7	10.1	11.2	7.5	8.0
Arenac	8.6	9.0	9.1	10.5	8.5	12.5
Baraga	7.8	8.5	8.9	10.9	6.5	8.4
Barry	9.6	11.7	10.5	11.3	12.5	12.5
Bay	8.4	8.7	10.2	10.6	8.5	9.4
Benzie	9.0	10.2	10.2	11.1	6.1	7.0
Berrien	8.8	9.0	10.6	11.1	7.8	8.3
Branch	9.1	11.2	9.6	10.9	7.8	0.8
Calhoun	9.5	11.5	11.1	11.8	8.8	9.6
Cass	9.4	10.9	10.0	10.9	8.2	8.5
Charlevoix	8.7	10.6	10.3	11.7	8.0	4.6
Cheboygan	8.4	8.7	9.0	10.4	10.5	7.8
Chippewa	8.3	9.4	10.4	11.3	8.4	8.2
Clare	8.6	9.2	10.0	11.2	---	8.5
Clinton	8.9	11.2	10.2	11.3	8.9	9.8
Crawford	6.8	9.0	10.0	11.5	9.9	6.0
Delta	8.2	8.7	10.1	11.0	7.4	10.0
Dickinson	8.5	9.5	10.1	11.3	10.5	9.3
Eaton	9.5	11.8	11.0	12.0	7.5	6.0
Emmet	8.8	11.3	10.8	11.7	9.0	8.4
Genesee	9.3	11.1	10.6	11.3	9.0	9.8
Gladwin	8.6	9.9	9.4	10.4	---	---
Gogebic	8.5	10.0	10.0	11.0	5.8	9.4
Grand Traverse	8.9	11.4	10.5	11.2	7.0	8.8
Gratiot	8.9	10.6	10.4	11.3	8.8	12.6
Hillsdale	10.2	11.8	10.9	12.1	7.8	7.5
Houghton	8.2	9.0	8.9	10.1	0.5	9.2
Huron	8.4	8.7	8.9	9.4	---	---
Ingham	10.0	11.9	12.1	12.2	10.1	10.6
Ionia	9.0	11.7	9.9	11.3	7.0	6.5
Iosco	8.7	9.3	11.5	12.1	10.2	12.3
Iron	8.8	10.1	9.9	11.1	---	6.0
Isabella	8.7	10.2	10.6	11.8	8.3	7.3
Jackson	10.3	11.9	10.7	11.6	8.2	8.8
Kalamazoo	10.3	11.6	11.5	12.0	8.7	8.9
Kalkaska	8.8	12.2	9.0	11.3	---	10.5

Table 4: Median School Years Completed by the Population
25 and Over in Michigan by County: 1960

County	Rural- Farm White Males	Rural- Farm White Females	Nonfarm White Males	Nonfarm White Females	Nonfarm Nonwhite Males	Nonfarm Nonwhite Females
Kent	8.9	10.9	10.9	11.4	8.8	9.2
Keweenaw	6.0	7.5	8.3	8.7	12.3	6.0
Lake	8.5	8.8	8.8	10.1	7.2	8.0
Lapeer	8.9	10.9	9.1	10.3	1.8	0.8
Leelanau	8.5	9.2	10.1	11.5	8.5	7.4
Lenawee	10.1	12.0	10.6	11.6	8.6	11.4
Livingston	10.0	12.0	10.5	11.6	7.9	10.2
Luce	8.6	8.7	8.7	9.1	3.8	7.5
Mackinac	8.6	8.8	9.5	11.0	7.9	8.6
Macomb	8.6	8.9	10.9	11.3	8.5	9.0
Manistee	8.9	9.9	9.6	10.2	8.3	7.8
Marquette	8.2	8.4	10.6	11.5	9.3	12.2
Mason	8.6	9.7	10.4	11.0	8.5	9.8
Mecosta	8.8	10.7	10.7	11.4	5.0	6.8
Menominee	8.5	8.8	9.8	10.7	3.9	5.6
Midland	8.8	10.1	12.2	12.2	17.1	12.5
Missaukee	8.5	8.7	9.5	10.2	6.0	---
Monroe	8.7	8.9	9.2	10.2	8.2	8.4
Montcalm	8.9	10.5	10.2	11.4	8.6	9.4
Montmorency	8.6	8.9	9.6	10.7	---	---
Muskegon	8.8	9.8	10.3	11.0	7.7	8.7
Newaygo	8.7	9.7	9.1	10.6	7.1	8.8
Oakland	9.8	11.3	12.0	12.1	8.5	9.3
Oceana	8.9	10.0	8.9	10.3	3.6	7.5
Ogemaw	8.5	9.2	9.0	10.3	---	12.5
Ontonagon	8.4	8.4	8.9	10.6	---	12.5
Osceola	8.6	10.2	9.3	11.2	12.0	7.5
Oscoda	8.8	10.0	9.4	10.8	---	---
Otsego	8.4	8.7	9.4	10.6	10.9	7.7
Ottawa	8.6	8.8	9.9	10.6	11.3	8.8
Presque Isle	8.2	8.6	9.0	10.1	---	8.5
Roscommon	9.6	10.8	10.4	11.5	10.5	---
Saginaw	8.6	8.8	10.4	11.0	8.0	8.7
St. Clair	8.6	8.9	10.0	10.9	7.8	8.5
St. Joseph	9.4	10.9	10.8	11.6	8.4	8.3
Sanilac	8.7	9.6	9.3	10.4	16.0	7.5
Schoolcraft	8.7	8.9	9.1	10.3	0.9	0.9
Shiawassee	9.1	11.2	10.4	11.2	13.9	10.3
Tuscola	8.7	9.7	9.0	9.9	4.6	6.7
Van Buren	9.2	10.4	10.1	10.9	8.5	8.9
Washtenaw	9.9	11.8	12.4	12.3	9.5	10.0
Wayne	8.8	10.0	10.6	11.0	8.8	9.8
Wexford	8.7	10.7	9.5	10.6	---	13.0

lower attainment by .1 year in Washtenaw County and equal attainment with males in Midland County. In the nonwhite nonfarm population, females had higher attainment in 43 counties, lower in 24, and equal attainment with males in 2 counties. There were 5 counties which had no nonwhite, 7 which had no nonwhite males and two which had no nonwhite females.

In the white rural-farm population of the 82 counties in which females had higher attainment than males, the difference in medians was a year or more in 51 of the counties and less than a year in 31; in the white nonfarm, of the 81 counties in which females had higher attainment, the difference in medians was a year or more in 45 counties and less than a year in 36. In the nonwhite nonfarm population, of the 43 counties where females had higher attainment, the difference in medians was a year or more in 19 of the counties and less than a year in 24, and in the 24 counties where males had the higher attainment, in 18 counties the difference was a year or more and in 6 counties it was less than a year.

Obviously, due to extremely small populations, some of the nonwhite medians are not very meaningful. For example, the counties where nonfarm nonwhite males had high median attainments than the nonfarm nonwhite females, had very small nonwhite populations. Among the smallest nonwhite populations were 4 males and 9 females in Dickinson County and 8 males and 4 females in Sanilac County. Among the largest nonwhite populations in the group were 224 males and 182 females in Chippewa County and 207 males and 199 females in St. Joseph County. Among the extremes in the group were 105 males and 4 females in Crawford County and 432 males and 64 females in Ionia County.

There were sizable differences in the medians for the various counties for whites and for nonwhites these differences were much greater. Medians ranged from 6.0 to 10.3 for rural-farm white males, from 8.4 to 12.0 for rural-farm white females, from 8.3 to 12.4 for nonfarm white males, from 9.1 to 12.3 for nonfarm white females, from 0.5 to 17.1 for nonfarm nonwhite males and from 0.8 to 13.0 for nonfarm nonwhite females. These extreme medians for nonwhites are not very meaningful when we see the numbers they represent. For males,

the median 0.5 stands for 8 people in Houghton County while the median 17.1 stands for 10 people in Midland County. For females, the median 0.8 represents 30 people in Branch and 80 people in Lapeer Counties while the median 13.0 represents 8 people in Wexford County.

To summarize, the data do support the statement that females in general have higher median educational attainments than males regardless of color or residence. What are some possible explanations for higher median female attainment?

Bertrand and Smith in a study done in Louisiana found that more girls than boys dropped out of school because of marriage and because they were needed at home. More boys than girls dropped out for financial reasons and because of lack of interest. Bertrand and Smith concluded the basic problem of drop-outs to be apathy of youth.²

Several authors who have written about educational attainment have stated that at all ages below 22 years, male students are more likely to be retarded than female students and this is true for both color groups, the three residence groups, and the four regions of the country. They are retarded either because they fail to master the material or because of illness or other factors which prevent steady school attendance.

Talcott Parsons has stated, "It seems to be a definite fact that girls are more apt to be relatively docile, to conform in general according to adult expectations, to be 'good', whereas boys are more apt to be recalcitrant to discipline and defiant of adult authority and expectations."³

Parsons⁴ in the 1940's suggested that girls were able to observe their mothers in their adult roles and it was possible for daughters to participate usefully and actively in many of their mother's activities.

²Alvin L. Bertrand and Marion B. Smith. "Environmental Factors and School Attendance, a Study in Rural Louisiana," Louisiana State University and Agricultural and Mechanical College in cooperation with Agricultural Marketing Service, U.S. Dept. of Agriculture, May 1960. Bulletin #533.

³Talcott Parsons, "Age and Sex in the Social Structure of the United States," American Sociological Review, 7(1942) 605.

⁴Ibid.

Boys, on the other hand, had no tangible meaningful model to emulate nor did they have the possibility of gradual initiation into activities of the adult male role. Especially in the urban middle classes where the father did not work at home, the son was unable to observe his work and participate in it from an early age. For some this may have been cause for apathy in school.

Sexton believes the school is often dominated by "female" attitudes, interests and standards of behavior which makes it difficult for lower-income boys to find a place in school life.⁵

White-Nonwhite Differences

Many writers note that nonwhite enrollment rates at most ages lag behind white enrollment rates although the differential is not as large below 14 years of age as it is above age 15. Census records have shown a steady reduction in the white-nonwhite enrollment differential during the past half century with the gap markedly narrowed in 1960. Bogue suggests "the recent urbanization of the nonwhite population may have been responsible, in large part, for the rapid rise of nonwhite school attendance rates and the resultant shrinking of the white-nonwhite differential."⁶

The following table indicates the differential in 1960 by comparing nonwhite enrollment rates with those of the State.

Table 5 shows that in general nonwhite enrollment rates lagged behind the rates of the State as a whole in 1960 although it must be kept in mind that State rates include nonwhites.

At age 5 nonwhite rates were higher than State rates while from ages 6 to 17 State rates were higher than nonwhite rates. From ages 18 to 29 males in the State had higher enrollments than nonwhite males although nonwhite males had a .1% higher enrollment than males 30 to 34 in Michigan as a whole.

⁵Patricia Cayo Sexton. Education and Income Inequalities in Our Public Schools, New York: The Viking Press, 1961.

⁶Donald J. Bogue, The Population of the United States, Glencoe, Ill.: The Free Press, p. 333.

Table 5: Percentage Enrolled in School for Persons 5 to 34 Years Old, by Single Years of Age for the State and Nonwhites: 1960.⁷

Age	The State		Nonwhites	
	Male	Female	Male	Female
5-34	59.3	53.8	57.5	52.1
5	71.0	71.4	83.4	82.6
6	97.0	96.9	95.8	96.5
7	98.4	98.4	97.2	97.3
8	98.5	98.5	97.1	97.2
9	98.4	98.4	97.3	97.0
10	98.3	98.4	96.9	96.7
11	98.4	98.2	96.9	95.9
12	97.8	98.3	95.2	96.8
13	97.5	97.7	95.2	95.1
14	96.2	96.5	92.0	93.2
15	95.3	95.1	92.0	93.2
16	89.1	89.3	83.6	82.1
17	81.9	78.7	71.6	68.1
18	60.9	46.4	48.6	37.7
19	40.9	27.1	29.1	23.2
20	30.7	18.5	16.7	13.6
21	26.0	13.9	13.8	10.3
22	20.3	7.3	12.7	6.6
23	16.7	5.0	10.1	5.1
24	13.8	4.1	10.1	5.1
25-29	9.4	3.2	6.7	4.4
30-34	4.0	2.1	4.1	3.2

⁷United States Census of Population 1960, Michigan Detailed Characteristics, PC(1)240, Pp. 382-385.

State females had higher enrollments than nonwhite females at ages 18 to 22 although from ages 23 to 34 female nonwhites had higher enrollments than females in the State as a whole.

These data indicate that in the future there will likely be a narrowing of the gap in educational attainment between whites and nonwhites.

The following medians show the substantial white-nonwhite differential for the United States and Michigan as of 1960:

United States	
White	10.9
Male	10.7
Female	11.2
Nonwhite	8.2
Male	7.9
Female	8.5
Michigan	
White	11.0
Nonwhite	9.1

Source: United States Statistical Abstract of 1963.

Levels of educational attainment are generally lower for nonwhites than for whites of both sexes and in all residence groups. Nonwhites comprise a disproportionately large share of the most poorly educated persons and a disproportionately small share of the most highly educated. However, in recent years, the upward movement of educational levels has been greater for nonwhites than for the white population.

To illustrate the white-nonwhite differential for Michigan more clearly, calculations have been made using data from unpublished Census data to obtain the percentages of nonfarm male and female whites and nonwhites having completed given levels of schooling in each of Michigan's SEA's. See Table 6.

Of the 18 SEA's in Michigan, in 17 of the SEA's for males and 14 of the SEA's for females there were higher percentages of nonwhites than of whites who had not attended school. In one SEA for males and 3 SEA's for females, a higher percentage of whites than of nonwhites

Table 6: Percentages of Nonfarm Males Having Completed Levels of Educational Attainment in Michigan by Color: 1960

SEA	No School		Elem School		1-3 Yrs HS		HS Grad		College	
	W	N	W	N	W	N	W	N	W	N
Area 1	2.6	2.0	42.4	48.0	19.4	30.2	23.3	16.6	12.3	3.2
Area 2	2.1	14.0	43.5	58.3	19.0	5.8	23.6	17.6	11.8	4.3
Area 3	0.9	5.2	43.7	75.0	16.4	8.2	24.8	10.1	14.2	1.5
Area 4	0.9	7.9	44.1	54.8	19.6	27.1	22.1	6.9	13.3	3.3
Area 5	1.6	12.3	40.5	53.5	17.3	22.3	22.6	0.0	18.0	11.9
Area 6	0.8	5.1	40.3	61.9	21.6	19.3	22.1	9.1	15.2	4.6
Area 7	2.4	12.4	40.0	55.9	21.6	15.4	24.2	10.3	11.8	6.0
Area 8	1.1	6.3	44.3	59.6	21.5	21.2	21.7	8.9	11.4	4.0
Area 9	1.3	3.4	36.0	54.1	22.6	21.6	25.6	14.5	14.5	6.4
Area A	1.4	2.3	37.2	63.3	23.8	21.3	23.9	9.9	13.7	3.2
Area B	0.9	3.7	34.1	48.8	23.5	25.9	22.1	12.8	19.4	8.8
Area C	1.1	6.9	39.5	54.7	23.5	18.9	22.3	8.2	13.6	11.3
Area D	0.8	2.3	36.2	47.9	24.4	27.2	24.6	15.3	14.0	7.3
Area E	0.6	3.3	30.1	38.0	19.5	24.6	25.3	15.8	24.5	18.3
Area F	1.6	2.4	33.7	50.8	22.7	23.7	22.8	15.0	19.2	8.1
Area G	1.0	6.0	31.4	48.4	21.0	22.4	23.5	14.1	23.1	9.1
Area H	0.8	3.4	34.2	59.1	25.9	26.7	23.3	7.8	15.8	3.0
Area J	0.7	1.9	26.2	44.9	16.1	21.0	19.4	10.0	37.6	22.2

Table 6: Percentages of Nonfarm Females Having Completed Levels of Educational Attainment in Michigan by Color: 1960

SEA	No School		Elem School		1-3 Yrs HS		HS Grad		College	
	W	N	W	N	W	N	W	N	W	N
Area 1	2.5	3.8	34.7	42.0	19.5	22.3	30.5	21.0	12.8	10.9
Area 2	1.6	14.3	36.2	44.9	20.3	29.8	30.0	8.5	11.9	2.5
Area 3	0.9	1.7	37.8	71.1	18.2	11.9	28.4	8.5	14.7	6.8
Area 4	0.5	1.6	35.7	63.3	21.2	19.9	29.3	9.8	13.3	5.4
Area 5	1.2	13.2	34.2	52.9	18.5	16.7	29.1	11.0	17.0	6.2
Area 6	0.8	2.1	35.1	56.0	22.3	25.7	28.7	11.9	13.1	4.3
Area 7	2.6	25.5	30.9	39.0	22.9	15.6	31.1	16.5	12.5	3.4
Area 8	0.8	2.2	37.3	58.3	22.7	22.3	28.7	13.5	10.5	3.7
Area 9	0.8	2.7	29.5	46.1	22.9	27.8	32.6	16.6	14.2	6.8
Area A	1.5	1.8	33.4	52.4	22.5	13.2	31.6	13.2	11.0	3.6
Area B	1.0	2.1	30.1	46.1	23.2	27.3	30.1	16.3	15.6	8.2
Area C	0.7	---	37.5	45.5	22.2	31.2	27.8	13.6	11.8	9.7
Area D	0.8	1.7	29.6	40.3	25.1	31.4	33.0	19.2	11.5	7.4
Area E	0.6	0.5	24.9	34.0	21.1	30.1	33.9	24.5	19.5	10.9
Area F	1.9	1.7	30.4	41.6	23.1	27.2	31.5	20.3	13.1	9.2
Area G	0.6	1.5	27.3	49.7	21.1	25.5	31.2	15.3	19.8	8.0
Area H	0.8	0.8	27.3	54.3	25.0	25.3	32.1	15.3	14.8	4.3
Area J	0.6	1.5	23.2	40.1	16.9	25.1	27.3	17.3	32.0	16.0

had not attended school and in one SEA an equal percentage of whites and nonwhites had not attended school.

In all 18 SEA's a higher proportion of nonwhites than of whites, both males and females, had only an elementary school education and in most SEA's the differences in percentages between colors were substantial.

In 11 SEA's for males and in 13 for females a higher proportion of nonwhites than of whites had completed 1 to 3 years of high school while in 8 SEA's for males and in 5 for females more whites than nonwhites had completed 1 to 3 years of high school.

In all 18 SEA's higher proportions of whites than of nonwhites, both males and females, had graduated from high school and completed one or more years of college and in most SEA's, in both categories, the differences between color groups were substantial.

It can be clearly seen from these data that a disproportionately large share of those with only an elementary school education are nonwhites while this group comprises a disproportionately small share of those who have graduated from high school and attended college.

Gist and Bennett, in a study of Mid-Western urban high school students, found no difference between Negro and white youths' aspirations or plans for occupation or education per se, although the Negro parents in the study were occupationally disadvantaged in relation to the white parents. Negroes, especially Negro girls, even revealed higher mobility aspirations than the whites.⁸

Yet the data show much higher levels of educational attainment for whites than for nonwhites. What are some possible explanations for this situation?

Although Census returns on age-grade enrollment suggest little difference between white and nonwhite rates of acceleration, backwardness in age-grade school progress is startlingly high among nonwhites. "In each age-sex category, the lowest nonwhite retardation rate (that of urban children) exceeded the highest white rate of retardation

⁸ Noel P. Gist and William S. Bennett Jr. "Aspirations of Negro and White Students," Social Forces, 42(1963), 40-48.

(that of rural-nonfarm children)."⁹

Bernert mentioned that nonwhites have a greater childhood dependency ratio than do whites. In her words, "most effective in seriously hampering the attainment of a satisfactory standard of education in a given area is its childhood dependency load, that is, large numbers of children in proportion to the numbers of adults who support them and who pay the bills for their education."¹⁰ At another place, she asserts:

"A high ratio of children and youth to adults of productive ages correlates highly with low family income and poor housing conditions, low expenditures for schooling, and poor educational performance."¹¹

Bogue suggested that in part color differences can be traced to the situation that existed after the Civil War. Despite efforts to extend education to newly-freed slaves and their children and grandchildren, it was a long time before nearly equal opportunities for enrollment in the elementary and high schools were provided and it is not certain whether they are available yet in some areas.¹²

Summary

Using 1960 enrollment data applying to those 5 to 34 years of age in Michigan, very slight differences in the proportion of males as compared to females enrolled from ages 5 to 17 were found. From ages 18 to 34 a substantially higher proportion of males than of females were enrolled in all residence groups, except the rural-farm where differences in the proportion of males as compared to females enrolled were, relatively speaking, not as great.

Using data on median years of school completed applying to those

⁹Age-Grade School Progress of Farm and Nonfarm Youth: 1960. Washington: Economic Research Service, Agricultural Economic Report Number 40, August 1963.

¹⁰Eleanor H. Bernert. America's Children, New York: John Wiley & Sons, Inc., 1958, p. 20.

¹¹Ibid., p. 21.

¹²Donald J. Bogue. The Population of the United States, Glencoe, Ill.: The Free Press, 1959.

25 and over by counties in Michigan, it was found that generally females had higher levels of educational attainment than males.

Enrollment data applying to the State and nonwhites 5 to 34 showed that in general nonwhite enrollment rates lagged behind the rates for Michigan as a whole.

Using percentages of whites and nonwhites 25 and over in each level of schooling in each of Michigan's 18 SEA's, it was found that levels of educational attainment were generally lower for nonwhites than for whites regardless of sex.

Chapter 3

Differences in Educational Attainment by Residence and Sex

This chapter is devoted to an analysis of data bearing upon the hypotheses of this study. The two major hypotheses concern levels of educational attainment according to residence and sex. Under the assumption that part of the differences in attainment may be due to age differences, age is controlled in one set of comparisons.

Enrollment

Sources using 1950 Census data state that school attendance rates are higher in urban areas than in rural areas and that this kind of urban-rural difference appears at almost every age, for both sexes and for both whites and nonwhites. Enrollment rates are frequently highest in urban areas and lowest in rural-farm areas.

Sources using 1960 Census data note that differentials between urban and rural enrollment rates have declined in the last decade. The rural residence group generally lags behind the urban residence group in proportion enrolled in school at each age and for each color and sex category. However, the proportion enrolled in the rural-farm population is generally higher than the proportion enrolled in the rural-nonfarm population. See Table 3.

The relatively high level of school enrollment at most ages in the rural-farm population in 1960 and the increased enrollment rates for this population in the decade is impressive although part of this change may be due to the Census' change in the definition of "rural-farm" in 1960. The Census states "Farm-nonfarm residence in 1950 was determined by respondents' answer to the question, 'Is this house a farm (or ranch)'" In 1960 farm residence was determined by more restrictive criteria including number of acres on the farm and amount of sales of farm products.

According to the Economic Research Service:¹

¹School Dropout Rates Among Farm and Nonfarm Youth: 1950 and 1960, Washington: Economic Research Service, Agricultural Economic Report No. 42, September 1963.

1. Among persons 14 to 24 years old, in 1950, 40% of farm youth and 28% of urban youth dropped out of school while in 1960, 23% of farm youth and 21% of urban youth were dropouts.

2. Among male farm residents 16 to 24 years old the estimated total white dropout rate was 54% in 1950 and 32% in 1960.

3. Contrary to the situation in 1950, in 1960, the total dropout rates for farm males were slightly lower than for rural-nonfarm males.

Educational Attainment

Beegle notes that the residential differential in educational attainment is more marked in all regions for white males than for white females. Generally both whites and nonwhites residing in urban areas have higher median levels of educational attainment than rural-farm residents although the urban-rural differential with respect to educational attainment is slowly narrowing.

While there has been extensive evidence from the past that educational attainment of farm people lags behind nonfarm, current indications are that these differences have narrowed. Marked alterations in the 1960 definition of the farm population also suggest that the nature of the residential differences in education have changed. Hence, the first hypothesis may be phrased as follows:

Hypothesis 1: Levels of educational attainment are generally higher for the nonfarm population than for the farm population for each sex.

Tables 7,8,9,10 and 11 show both actual percentages and those corrected for age for each level of schooling in each SEA of Michigan in 1960. A map showing Michigan's SEA's appears on page 30.

Table 7: Range of Percentages in Actual and Corrected Data in Each Category of Educational Attainment, in Michigan's 18 SEA's.

	No School	Elem Sch.	1-3 Yrs HS	4 Yrs HS	College
<u>Nonfarm White Males</u>					
Actual	0.6-2.6	26.2-44.3	16.1-25.9	19.4-25.6	11.4-37.6
Corrected	1.2-1.8	23.2-40.6	20.5-22.2	21.0-24.9	16.1-18.5
<u>Rural-Farm White Males</u>					
Actual	0.2-4.4	40.0-79.9	8.7-22.4	7.3-26.7	2.9-14.8
Corrected	1.4-2.1	38.6-44.0	19.9-21.5	19.2-24.9	14.8-18.5
<u>Nonfarm White Females</u>					
Actual	0.5-2.6	23.2-37.8	16.9-25.1	27.3-33.9	10.5-33.0
Corrected	1.2-1.8	29.8-34.7	21.4-22.6	28.1-32.3	13.3-14.2
<u>Rural -Farm White Females</u>					
Actual	0.2-5.0	28.7-61.5	13.8-23.9	16.7-35.2	5.6-18.1
Corrected	1.4-1.8	31.9-37.0	21.4-22.3	26.5-30.7	13.2-13.7

Table 7 presents the range among the 18 SEA's in Michigan in 1960 with respect to percentages completing various levels of schooling, by residence and sex. Ranges are shown for actual school completion levels and for completion levels corrected for differences in age structure. It will be recalled from Chapter 1 that two base populations were used in standardizing local area completion levels. The first was the white male population of Michigan in 1960; the other was the white female population of Michigan in 1960. This standardization enables us to say what percentage of a given residence-sex sub-group would have completed each level of schooling if its age-specific educational levels were like those of the standard population.

As shown in Table 7, corrections served to reduce the range in completion levels among the 18 SEA's in Michigan. For example, the percentage of rural-farm white males completing some college ranged from a low of 2.9 to 14.8 percent. Due to the older age structure of farm males, the range when corrected was from 14.8 to 18.5 percent.

Tables 8,9,10 and 11 show the actual and standardized data of those having completed each level of schooling in each SEA in Michigan

in 1960. Table 8 shows nonfarm white males; Table 9, rural-farm white males; Table 10, nonfarm white females; and Table 11, rural-farm white females.

For nonfarm white males, percentages in more SEA's in the standardized data than in the actual data were higher in the no school and college categories, lower in the elementary and high school categories, and approximately the same in the 1 to 3 years of high school category.

For rural-farm white males, percentages in more SEA's in the standardized data than in the actual data were higher in all categories, except elementary. In the elementary category, proportions in the standardized data were lower than in the actual data in more SEA's.

For nonfarm white females, an approximately equal number of SEA's had higher as lower percentages in the standardized data as in the actual data in the elementary, 1 to 3 years of high school, and college categories, although standardized data percentages were higher in more SEA's in the no school category and lower in more SEA's in the high school graduation category.

For rural-farm white females, standardized data percentages were higher than actual data percentages in more SEA's in the no school and 1 to 3 years of high school categories and lower in the elementary category in more SEA's. Approximately the same number of SEA's had higher as lower percentages in the standardized data in the high school graduation and college categories.

We will first examine actual level of completion data.

In the No School completed category the difference between percentages for the rural-farm and nonfarm populations was generally quite small. The percentages of the rural-farm population which had completed no school were higher than the nonfarm population in 7 of the SEA's for males and in 6 of the SEA's for females; lower than the nonfarm population in 10 SEA's for males and in 9 SEA's for females; and the same as the nonfarm population in one SEA for males and in two SEA's for females. One SEA had no rural-farm females in the No School Completed category.

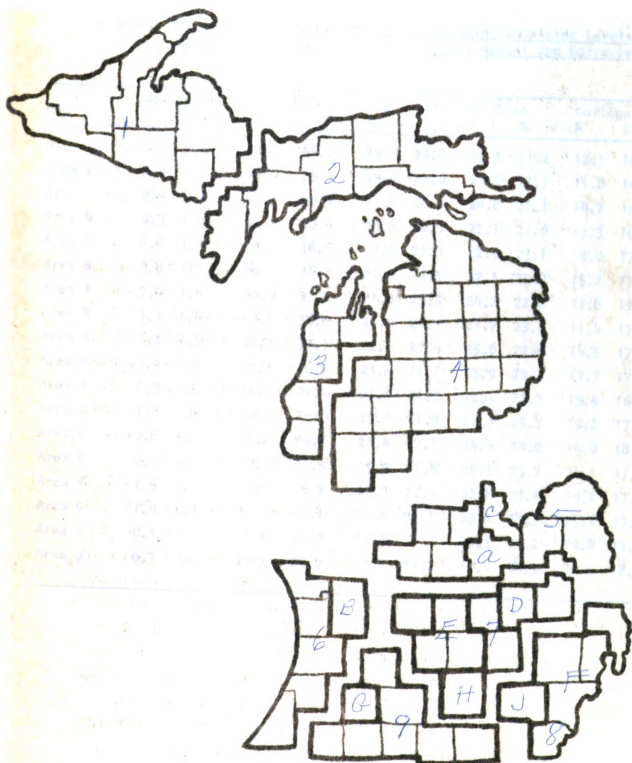


Table 8: Percentages of Nonfarm White Males Having Completed Levels of Educational Attainment in Michigan, Actual and Corrected Data, 1960

SEA	No School		Elem School		1-3 Yrs HS		HS Grad		College	
	A	C	A	C	A	C	A	C	A	C
Area 1	2.6	1.7	42.4	40.2	19.4	20.8	23.3	21.2	12.3	16.1
Area 2	2.1	1.7	43.5	39.1	19.0	21.0	23.6	21.7	11.8	16.5
Area 3	0.9	1.7	43.7	40.4	16.4	20.7	24.8	21.1	14.2	16.1
Area 4	0.9	1.8	44.1	40.6	19.6	20.5	22.1	21.0	13.3	16.1
Area 5	1.6	1.5	40.5	36.6	17.3	21.5	22.6	23.1	18.0	17.3
Area 6	0.8	1.4	40.3	36.7	21.6	21.6	22.1	23.0	15.2	17.3
Area 7	2.4	1.5	40.0	37.0	21.6	21.5	24.2	22.8	11.8	17.2
Area 8	1.1	1.4	44.3	36.6	21.5	21.7	21.7	23.0	11.4	17.3
Area 9	1.3	1.5	36.0	37.1	22.6	21.4	25.6	22.8	14.5	17.2
Area A	1.4	1.4	37.2	36.2	23.8	21.7	23.9	23.3	13.7	17.4
Area B	0.9	1.5	34.1	37.4	23.5	21.5	22.1	22.7	19.4	16.9
Area C	1.1	1.3	39.5	36.1	23.5	21.9	22.3	23.3	13.6	17.4
Area D	0.8	1.2	36.2	34.7	24.4	22.1	24.6	24.0	14.0	18.0
Area E	0.6	1.3	30.1	35.5	19.9	21.8	25.3	23.7	24.5	17.7
Area F	1.6	1.3	33.7	36.2	22.7	21.9	22.8	23.2	19.2	17.4
Area G	1.0	1.4	31.4	36.1	21.0	21.7	23.5	23.3	23.1	17.5
Area H	0.8	1.4	34.2	36.2	25.9	21.7	23.3	23.2	15.8	17.5
Area J	0.7	1.2	26.2	23.2	16.1	22.2	19.4	24.9	37.6	18.5

Table 9: Percentages of Rural-Farm White Males Having Completed Levels of Educational Attainment in Michigan, Actual and Corrected Data, 1960

SEA	No School		Elem School		1-3 Yrs HS		HS Grad		College	
	A	C	A	C	A	C	A	C	A	C
Area 1	4.4	1.5	68.5	41.7	12.1	21.5	12.0	20.1	3.0	15.2
Area 2	1.4	1.6	68.7	41.1	10.9	20.9	15.2	20.7	3.8	15.7
Area 3	2.0	2.0	55.7	43.8	13.3	20.2	22.5	19.2	6.5	14.8
Area 4	1.3	1.8	64.9	42.4	13.6	20.6	15.7	20.0	4.5	15.2
Area 5	1.2	1.8	59.8	41.2	13.7	20.7	20.4	20.7	4.9	15.6
Area 6	1.6	1.8	57.9	41.9	16.3	20.7	17.5	20.2	6.7	15.4
Area 7	0.8	1.8	49.5	41.6	16.5	20.6	25.8	20.5	7.4	15.5
Area 8	2.0	2.1	61.5	44.0	13.8	19.9	17.9	19.2	4.8	14.8
Area 9	0.9	1.9	44.3	42.0	19.6	20.5	26.7	20.2	8.5	15.4
Area A	0.9	1.8	66.5	41.7	15.3	20.6	13.9	20.3	3.4	15.6
Area B	0.6	1.8	52.6	41.9	20.0	20.5	17.7	20.3	9.1	15.5
Area C	1.2	1.4	79.9	38.6	8.7	21.5	7.3	22.0	2.9	16.5
Area D	0.8	1.9	47.1	43.4	20.8	20.4	21.8	19.3	9.5	15.0
Area E	0.7	1.7	47.5	41.2	18.2	20.7	26.2	20.7	7.4	15.7
Area F	1.2	1.8	55.5	42.7	16.1	20.5	17.6	19.9	9.6	15.1
Area G	0.2	1.8	40.8	42.2	20.5	20.5	23.7	20.1	14.8	15.4
Area H	0.5	1.7	40.0	41.0	22.4	20.8	27.1	20.7	10.0	15.8
Area J	0.8	2.0	44.0	43.2	17.5	20.2	23.6	24.9	14.1	18.5

Table 10: Percentages of Nonfarm White Females Having Completed Levels of Educational Attainment in Michigan, Actual and Corrected Data, 1960

SEA	No School		Elem School		1-3 Yrs HS		HS Grad		College	
	A	C	A	C	A	C	A	C	A	C
Area 1	2.5	1.7	34.7	34.7	19.5	21.8	30.5	28.4	12.8	13.4
Area 2	1.6	1.6	36.2	33.5	20.3	21.9	30.0	29.4	11.9	13.6
Area 3	0.9	1.8	37.8	35.4	18.2	21.4	28.4	28.1	14.7	13.3
Area 4	0.5	1.7	35.7	34.6	21.2	21.6	29.3	28.7	13.3	13.4
Area 5	1.2	1.5	34.2	32.1	18.5	21.9	29.1	30.8	17.0	13.7
Area 6	0.8	1.4	35.1	31.8	22.3	22.2	28.7	30.8	13.1	13.8
Area 7	2.6	1.5	30.9	32.4	22.9	21.9	31.1	30.5	12.5	13.7
Area 8	0.8	1.4	37.3	31.2	22.7	22.3	28.7	31.2	10.5	13.9
Area 9	0.8	1.6	29.5	32.9	22.9	21.8	32.6	30.1	14.2	13.6
Area A	1.5	1.4	33.4	31.8	22.5	22.1	31.6	30.9	11.0	13.8
Area B	1.0	1.5	30.1	32.9	23.2	21.9	30.1	30.0	15.6	13.7
Area C	0.7	1.5	37.5	31.8	22.2	22.1	27.8	30.9	11.8	13.7
Area D	0.8	1.2	29.6	29.8	25.1	22.6	33.0	32.2	11.5	14.2
Area E	0.6	1.4	24.9	31.4	21.1	22.1	33.9	31.2	19.5	13.9
Area F	1.9	1.3	30.4	30.8	23.1	22.5	31.5	31.4	13.1	14.0
Area G	0.6	1.5	27.3	31.9	21.1	22.1	31.2	30.7	19.8	13.8
Area H	0.8	1.5	27.3	32.7	25.0	21.9	32.1	30.2	14.8	13.7
Area J	0.6	1.3	23.2	30.1	16.9	22.3	27.3	32.3	32.0	14.0



Table 11: Percentages of Rural-Farm White Females Having Completed Levels of Educational Attainment in Michigan, Actual and Corrected Data, 1960

SEA	No School		Elem School		1-3 Yrs HS		HS Grad		College	
	A	C	A	C	A	C	A	C	A	C
Area 1	5.0	1.5	50.6	35.0	15.9	22.3	20.4	27.7	8.1	13.5
Area 2	1.6	1.5	53.2	33.4	15.3	22.2	23.6	29.2	6.3	13.7
Area 3	1.3	1.7	44.2	35.8	13.8	21.6	24.8	27.6	15.9	13.3
Area 4	1.0	1.5	46.2	34.0	19.2	22.2	23.1	28.7	10.5	13.6
Area 5	1.1	1.6	45.6	34.8	16.3	21.8	26.1	28.4	10.9	13.4
Area 6	1.1	1.6	47.7	34.6	17.0	22.0	23.5	28.3	10.7	13.5
Area 7	0.6	1.6	33.4	34.9	20.3	21.8	31.6	28.2	14.1	13.5
Area 8	1.8	1.8	50.7	37.0	18.0	21.4	22.0	26.5	7.5	13.3
Area 9	0.8	1.7	31.7	35.2	20.9	21.7	32.3	28.0	14.3	13.4
Area A	1.2	1.7	56.5	35.6	15.2	21.6	20.6	27.7	6.5	13.4
Area B	0.4	1.6	37.0	35.0	20.3	21.7	29.2	28.2	13.1	13.5
Area C	0.8	1.4	61.5	31.9	15.4	22.3	16.7	30.7	5.6	13.7
Area D	0.5	1.7	34.1	36.6	21.6	21.6	28.5	26.8	15.3	13.3
Area E	0.5	1.6	32.1	34.6	19.8	21.9	32.3	28.4	15.3	13.5
Area F	1.4	1.6	41.8	35.3	19.4	21.9	25.0	27.7	12.4	13.5
Area G	---	1.6	29.2	35.1	23.9	21.7	30.3	28.1	16.6	13.5
Area H	0.6	1.6	28.7	35.3	21.5	21.8	35.2	27.8	14.0	13.5
Area J	0.2	1.7	35.2	35.6	15.7	21.7	30.8	27.8	18.1	13.2

The percentages completing some elementary school were higher for the rural-farm than for the nonfarm in each of the 18 SEA's for both males and females.

The percentages completing 1 to 3 years of high school were higher for the nonfarm than for the rural-farm in each of the 18 SEA's for males and in 17 of the SEA's for females. In one SEA a higher percentage of rural-farm females had completed 1 to 3 years of high school.

The nonfarm had a higher percentage of high school graduates in 12 of the SEA's for males and in 15 of the SEA's for females, while in 6 of the SEA's for males and in 3 of the SEA's for females the rural-farm population had a higher percentage of high school graduates.

In all of the SEA's for males and in 14 of the SEA's for females the nonfarm population had a higher percentage than the rural-farm population who had completed one or more years of college while in 4 SEA's, rural-farm females had higher percentages than nonfarm females in the college category.

Thus, the actual data support the hypothesis that the nonfarm population generally has a higher level of educational attainment than the rural-farm population.

Although the overall picture is unchanged, there are several shifts within categories when the data are standardized for age.

If the age-specific educational levels attained by the entire white population of Michigan, separately for males and for females, were applied to the residence-sex group of each SEA the results would be as follows: in 15 of the SEA's for males and in 13 of the SEA's for females, a higher percentage of rural-farm than of nonfarm would have attended no school; in 2 SEA's for males and in 5 SEA's for females, a higher percentage of nonfarm than of rural-farm would not have attended, and in one SEA equal percentages of rural-farm and nonfarm males would have completed no school years.

In all of the SEA's for males and in 16 SEA's for females, a higher percentage of the rural-farm than of the nonfarm would have only an elementary school education while nonfarm females would have a higher proportion than the rural-farm females in this category in two of the SEA's.

A higher percentage of nonfarm than of rural-farm would have completed 1 to 3 years of high school in 16 SEA's for males and in 13 SEA's for females while in two SEA's for males and in 5 SEA's for females a higher percentage of the rural-farm than of the nonfarm would have acquired this level of schooling.

In all of the SEA's for males and in 17 of the SEA's for females a higher percentage of the nonfarm than of the rural-farm would have graduated from high school while equal percentages of rural-farm and nonfarm females in one SEA would have graduated.

In all of the SEA's for males and in 13 of the SEA's for females a higher proportion of the nonfarm than of the rural-farm would have attended one or more years of college. A higher proportion of rural-farm than of nonfarm females in 3 SEA's would have been in this category and in two SEA's equal percentages of rural-farm and nonfarm females would have attended one or more years of college.

Both the actual and standardized data support the hypothesis that levels of educational attainment are generally higher for the nonfarm population than for the farm population regardless of sex although the data for males support it more consistently than do the data for females.

Do the data indicate any significant information concerning level of schooling or age structure in various areas of Michigan?

In the standardized data, the only SEA's where a higher percentage of nonfarm than of rural-farm males had not attended school, were Areas 1 and 2, both of which are in the Upper Peninsula.

The actual data show that all SEA's where a higher proportion of rural-farm than of nonfarm males had graduated from high school, were in the southeast and south-central parts of the State.

In the standardized data for females who either had not attended school, or who had completed 1 to 3 years of high school or who had attended one or more years of college, Areas 1,2,3,4 and C were consistently different from the rest of the State. (See the map, page 30.)

In these five areas a higher proportion of nonfarm than of rural-farm females had not attended school while in the rest of the State a higher proportion of rural-farm than of nonfarm females had not attended.

A higher proportion of rural-farm than of nonfarm females in these five areas had completed 1 to 3 years of high school while a higher proportion of nonfarm than of rural-farm females were in this category in the rest of the State.

A higher proportion of nonfarm than of rural-farm females had attended one or more years of college in all areas of Michigan except these five. In Areas 1,2, and 4 a higher proportion of rural-farm than of nonfarm females had attended and in Areas 3 and C, equal proportions of rural-farm and nonfarm females were in this category.

The above statements indicate that females in Areas 1,2,3,4 and C are generally older than females in Michigan as a whole.

What are some possible explanations for lower rural-farm than nonfarm educational attainment?

Several writers have noted that retardation occurs to a considerably greater extent among pupils living in rural areas than among those living in urban areas. However, rural-farm youths, although 18 years old and retarded by two or more grades, are likely to be more persistent in remaining in school than are definitely retarded 18 year olds in urban and rural-nonfarm areas.

Bernert has mentioned that urban areas have lighter dependency ratios than rural-farm and rural-nonfarm areas. In other words, the total age structure of the urban population makes it more favorably balanced in regard to its supporting capacity than is either the rural-farm or rural-nonfarm population.²

In Elder's words,

"American studies have found that individualistic, competitive achievement is valued highly by urban middle-class, and Protestant or Jewish families. Familism, acceptance of social position, and a belief that events affecting oneself are externally determined tend to be more prevalent among rural, working-class, and Catholic families. Parental dominance also tends to be more common in the latter categories, and evidence in several countries indicates that the

²Eleanor H. Bernert. America's Children, New York: John Wiley & Sons, Inc., 1958.

educational attainment of youth from these families is relatively low."³

Elder describes the situation of farm youth as follows:

"A youth who comes from a large low-income farm family, who is needed for work on the farm, who has the opportunity to take over the farm, who attends a low-income school, who is enrolled in a vocational curriculum, who does not live near a public college, and who is not the eldest child in the family is likely to experience very few opportunities for going on to college."⁴

Elder describes the farm boy who experiences little incentive in the direction of education beyond high school:

"He comes from a large family and lives on a farm which his father owns and operates in a low-income farming area. College is not encouraged by his father since he would like his son gradually to take over the farm; his mother is relatively indifferent to a college education. The school he attends is small, understaffed, and is largely focused on a vocational training program in which he is enrolled. Although the probability of such a boy entering college is relatively small, other factors may make a difference in his life chances. The motivation and ability to achieve, as well as social-psychological competence, are dimensions of a youth's achievement potential which may override all obstacles in his path."⁵

In a study done by Burchinal comparing farm-oriented boys, non-farm-oriented farm boys, small-town boys, and urban boys, farm-oriented boys least frequently reported definite encouragement from either fathers or mothers to continue with their education.⁶

Burchinal, Haller, and others have done studies on the educational and occupational aspirations of rural youth.

³Glen H. Elder. "Family Structure and Educational Attainment: A Cross-National Analysis," American Sociological Review, 30(Feb. 1965)85.

⁴Glen H. Elder. "Achievement Orientations and Career Patterns of Rural Youth," Sociology of Education, 37(Fall 1963) 42.

⁵Ibid., p. 50.

⁶Lee G. Burchinal. "Differences in Educational and Occupational Aspirations of Farm, Small Town, and City Boys," Rural Sociology, 27 (1962) 101-121.

Burchinal, using a sample of tenth and twelfth grade boys, found the lowest levels of educational and occupational aspirations among farm boys and the highest levels of aspirations among metropolitan boys at both grade levels. Planning to farm had a depressing effect on aspirational levels. Aspirational levels of nonfarm-oriented farm-reared boys were similar to those of rural-nonfarm and small town boys.⁷

Haller also found boys planning to farm have low levels of educational and occupational aspirations. He suggested to those wishing to increase levels of occupational achievement of farm-reared youth that they attempt to modify these boys' expectations that they will be farmers. Haller suggested that levels of educational and occupational achievement are correlated with levels of educational and occupational aspirations.⁸

Straus found that the farm-oriented group was not motivated toward higher education and so denied itself better agricultural training and the opportunity to enter favorable urban employment.⁹

Compared to urban youth, Elder found that rural youth were more likely to be disadvantaged in the opportunity to achieve, in achievement motivation, and in personality orientation.¹⁰

Cowhig mentions that for farm youths continuing to reside on the farm after graduation, high school graduation is not a statistically significant factor in early occupational placement.¹¹

⁷ Ibid.

⁸ A. O. Haller. "The Occupational Achievement Process of Farm-Reared Youth in Urban-Industrial Society," Rural Sociology, 25(1960) 321-333.

⁹ Murray A. Straus. "Societal Needs and Personal Characteristics in the Choice of Farm, Blue Collar, and White Collar Occupations by Farmers' Sons," Rural Sociology, 29(December 1964) 408-425.

¹⁰ Glen H. Elder, Jr. "Achievement Orientations and Career Patterns of Rural Youth," Sociology of Education, 37(Fall 1963) 30-58.

¹¹ James D. Cowhig. "Early Occupational Status as Related to Education and Residence," Rural Sociology, 27(1962) 18-27.

Sewell also found farm youth to have lower educational aspirations than urban youth and he suggested the following reasons:¹²

1. There is greater access to higher education in urban areas.
2. The urban school generally has a more academically stimulating climate than the rural school because of better trained faculty, superior facilities, and more varied and challenging curricula.
3. The urban community has a much wider and more varied range of occupational opportunities than rural areas and many of these occupations require a minimum of college training for entry.
4. Farm boys' early socialization takes place in an environment in which farming is the principal, if not the only occupation.

In Chapter 2 it was found that generally females have higher median educational attainment than males.

Several writers have stated that a significantly higher proportion of females in all residence categories have completed high school although not as large a proportion of females as of males have completed college, except among rural-farm people. There is evidence that the differential is narrowing at all levels through high school graduation although the differential at the college level is not decreasing and may even be widening. Based on the 1960 Census, the second hypothesis may be phrased as follows:

Hypothesis 2: Levels of educational attainment are generally higher for rural-farm females than for rural-farm males. Levels of educational attainment are generally higher for nonfarm females than for nonfarm males except that more nonfarm males than nonfarm females have completed one or more years of college.

Standardized data will not be used in the analysis of this hypothesis since there is little difference in the age structure of rural-farm males as compared to rural-farm females or of nonfarm males as compared to nonfarm females.

The rural-farm data will be examined first using Tables 9 and 11. In 13 SEA's a higher percentage of males than of females had not

¹²William H. Sewell. "Community of Residence and College Plans," American Sociological Review, 29(1964) 24-38.

attended school and in 5 SEA's a higher percentage of females than of males had not attended. Higher proportions of males than of females had only an elementary school education in all 18 SEA's. In 15 SEA's a higher percentage of females than of males had completed 1 to 3 years of high school while a higher proportion of males than females had completed 1 to 3 years of high school in 3 SEA's. Higher percentages of females than of males had graduated from high school in all 18 SEA's and a higher proportion of females than of males had attended one or more years of college in each of the SEA's.

The data support the hypothesis that levels of educational attainment are generally higher for rural-farm females than for rural-farm males.

The nonfarm data will be examined below using Tables 8 and 10. In 9 SEA's a higher proportion of males than of females had not attended school, in 4 SEA's a higher proportion of females than of males had not attended, and in 5 SEA's equal percentages of males and females had not attended school.

In all SEA's a higher percentage of males than of females had only an elementary school education. A higher proportion of females in 14 SEA's and a higher percentage of males in 4 SEA's had completed 1 to 3 years of high school. A higher proportion of females than of males had graduated from high school in all 18 SEA's. In 13 SEA's a higher proportion of males than of females had attended one or more years of college; in 4 SEA's a higher percentage of females had attended; and in one SEA equal percentages of males and females had attended one or more years of college.

The hypothesis that levels of educational attainment are generally higher for nonfarm females than for nonfarm males except that more nonfarm males than nonfarm females have completed one or more years of college is supported by the data.

Several possible explanations for higher female than male educational attainment were mentioned in Chapter 2. Explanations for higher proportions of nonfarm males than nonfarm females and rural-farm females than rural-farm males having completed one or more years of college are

suggested below.

McDill and Coleman found that in the senior year of high school the effect of status in school is greater than family background for both sexes, with the discrepancy greater for boys than girls. The contribution of status in school to the variation in college plans increases for both sexes from the freshman to the senior year of high school, but the increase is greater for boys than for girls.¹³

"Thus for girls, the increase in the influence of status in school occurs concomitantly with a decrease in the influence of family background; for boys, the increase in the effect of status is accompanied by a very slight increase in the influence of family background. These findings suggest that family influences on educational plans are exerted earlier in the school careers of girls than of boys."¹⁴

McDill and Coleman also suggested that college attendance undoubtedly becomes more salient during the high school years for boys than for girls because a college education is more important in preparing males for a desirable education."¹⁵

Sewell's study in Wisconsin provides some explanation for the rural-farm situation. It is necessary to quote from this study at length in view of its applicability here:

"Briefly, the community of residence differences are generally eliminated or greatly reduced for girls. For boys, community of residence differences remain and are generally large for those in the high intelligence categories and for those in the higher socio-economic status groups. They are most marked for boys with high intelligence and high socio-economic status--the ones most able intellectually and economically to attend college. Finally, the failure of able rural boys, and particularly farm boys, to plan on college contributes most to the

¹³Edward L. McDill and James S. Coleman. "Family and Peer Influences in College Plans of High School Students," Sociology of Education, 38(Winter, 1965), 112-126.

¹⁴Ibid., p. 119.

¹⁵Edward L. McDill and James S. Coleman. "High School Social Status, College Plans, and Interest in Academic Achievement: A Panel Analysis," American Sociological Review, 28(1963), 917.

observed differences since the small city, medium city, and large city differences tend to vanish when intelligence and socio-economic status are partialled out. The conclusion is offered that factors other than sex, intelligence, and socio-economic status are needed to completely explain differences in college plans among the boys, but that the factors tested explain most of the differences among girls in the sample.

"Differences in the opportunity structures of rural and urban communities may underlie the differences in the educational aspirations of the group studied. The strong pull of farming as an occupational possibility for farm boys and the accompanying belief that college is not necessary for success in farming may go far in explaining the differences in college plans between farm and urban boys, but other factors must be sought to explain the differences between other rural boys and city boys. For girls, the lack of stable differences may well result from the fact that both rural and urban girls compete for a limited range of occupational opportunities, most of which are available mainly in the urban communities. Thus, rural girls must orient themselves not to the local but to the urban job market and are as likely as urban girls with similar intelligence and socio-economic status to seek the requisite education."¹⁶

Summary

Although there were some exceptions, both the actual and standardized data supported the first hypothesis that levels of educational attainment are generally higher for the nonfarm population than for the farm population for each sex.

Standardized data were not used in the analysis of the second hypothesis. Although there were a few exceptions, the data supported the hypothesis that levels of educational attainment are generally higher for rural-farm females than for rural-farm males and that levels of educational attainment are generally higher for nonfarm females than for nonfarm males except that more nonfarm males than nonfarm females have completed one or more years of college.

¹⁶William H. Sewell. "Community of Residence and College Plans," American Sociological Review, 29(1964) 37.38.

Chapter 4

Summary

One tenet of the "American Dream" would have it that everyone has an equal opportunity for education and those who do not obtain the necessary education have not taken advantage of their opportunities. However, in actuality, differences do exist.

This study is concerned with some of the differences in the educational attainment of the adult population of Michigan in 1960. The primary focus is on differences by residence and by sex.

The data utilized in this study came from unpublished 1960 Census sources which emerged from additional programming of questions reported in the 1960 Census volume entitled General Social and Economic Characteristics. Census data utilized in this study were based on a 25% sample of Michigan's population 25 years of age and over and data were given for males and females, whites and nonwhites, and the rural-farm and nonfarm populations. (Rural-nonfarm and urban made up the nonfarm category.) Data for nonwhites were not used throughout the study since some counties have no nonwhites and others have very few.

Data on median years of school completed were computed as a part of the re-programming in the unpublished Census material. Percentages having completed each level of schooling in each SEA were calculated from the unpublished Census data.

Since educational level attained decreases with increasing age, proportions of the population completing various levels are influenced in varying degrees by age structure. Because of this the data were standardized for age for the white population of each SEA using the white male and female populations of Michigan as a base.

The study had several limitations in addition to the problem of controlling for different age structures.

1. Data came from the 1960 Census.
 - a. Disadvantages
 - 1). The situation has changed in the last five years.
 - 2). Data apply only to the population 25 and over.
 - b. Advantages
 - 1). Superior random sample of a very large size.
 - 2). Carefully trained data gatherers.
2. Some persons 25 and over will eventually complete more schooling.
3. The literature may provide adequate explanations for educational attainment of today but not for those 25 and over.
4. Some of the literature was based on 1950 Census data and the Census definition of residence, particularly the rural-farm category, was changed in 1960.
5. Residence data in this study were broken down only into rural-farm and nonfarm.
6. It was difficult to derive explanations for the findings from the literature since few studies were concerned with educational attainment.
7. No other studies like the present study have been done.
 - a. Advantages
 - 1). Lack of restrictions placed by another's methodology or procedures.
 - 2). No problems of duplication, interpretation or comparison of another's work with the present study.
 - b. Disadvantages
 - 1). No guidelines.
 - 2). Many limitations unknown when the study was started.
 - 3). No other studies available for comparison.

Using this as a background, Chapter 2, presented the differential educational attainment of males as compared to females and whites as compared to nonwhites.

Using 1960 enrollment data applying to those 5 to 34 years of age in Michigan, very slight differences in the proportion of males as

compared to females enrolled from ages 5 to 17 were found. From ages 18 to 34 a substantially higher proportion of males than of females were enrolled in all residence groups, except the rural-farm where differences in the proportion of males as compared to females enrolled were relatively smaller.

Using data on median years of school completed for those 25 and over in each county, it was found that generally females have higher levels of educational attainment than males.

Some possible explanations for more males than females dropping out prior to high school graduation include:

1. More boys than girls drop out for financial reasons.
2. Apathy and lack of interest are causes for more boys than girls dropping out of school.
3. Males have higher retardation rates than females.
4. There is a greater likelihood for girls than boys to conform to parents' wishes especially at elementary and high school ages.
5. It is difficult for boys to emulate their fathers as models in modern society while girls have little difficulty in observing their mothers in adult roles.
6. The school may be dominated by female attitudes and interests.

Enrollment data applying to the State and nonwhites 5 to 34 years of age showed that in general nonwhite enrollment rates lagged behind the rates of Michigan as a whole.

Using percentages of whites and nonwhites 25 years old and over in each level of schooling in each SEA, it was found that levels of educational attainment were generally lower for nonwhites than for whites regardless of sex.

Some reasons for lower nonwhite attainment rates may include the following:

1. Retardation rates are much higher for nonwhites than for whites.
2. Nonwhites have greater youth dependency rates than whites.
3. Nonwhites have had unequal economic and educational opportunities for many decades.

Based on these conditions, Chapter 3 presented analyses of the

hypotheses based on residence and sex differences in educational attainment.

In analyzing the first hypothesis, standardization for age served to reduce the range in completion levels among the 18 SEA's in Michigan. The standardized data indicated that the nonfarm population, both male and female, in Areas 1,2,3, and 4 and C (see map, page 30) is older than the nonfarm population of Michigan as a whole. A pattern such as this was not evident in the rural-farm population from the standardized data.

Both the actual and standardized data supported the hypothesis that levels of educational attainment are generally higher for the nonfarm population than for the farm population for each sex.

Some possible explanations for lower rural-farm as compared to nonfarm attainment include:

1. Rural youth have higher retardation rates than urban youth.
2. Rural-farm and rural-nonfarm populations have higher youth dependency ratios than urban populations.
3. Urban families value individualistic, competitive achievement while familism, acceptance of social position, and a belief that events affecting one's life are externally determined are more prevalent among rural-farm families.
4. Rural youth are more likely than nonfarm youth to come from large, low-income families.
5. Rural youth are needed for work on the farm.
6. Rural youth may have relatively less parental encouragement to continue their education.
7. Rural youth have lower motivations toward higher education and lower educational and occupational aspirations than nonfarm youth.
8. Rural youth are disadvantaged in the opportunity to achieve, in achievement motivation, and in personality orientation.
9. Urban areas have greater access to higher education than rural areas.
10. Urban schools generally have better faculty, curricula, etc. than rural schools.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial data. This includes not only sales and purchases but also expenses and income. The document further states that regular audits are necessary to verify the accuracy of these records and to identify any discrepancies.

In the second part, the focus shifts to the management of cash flow. It highlights the need for a clear understanding of the company's current financial position and the ability to forecast future cash requirements. The document suggests implementing a system of budgeting and monitoring cash flow to avoid liquidity issues. It also mentions the importance of maintaining a healthy relationship with creditors and suppliers to ensure timely payments and favorable terms.

The third part of the document addresses the issue of taxation. It provides an overview of the various tax obligations that a business may face, including income tax, sales tax, and property tax. The document advises consulting with a tax professional to ensure compliance with all applicable laws and regulations. It also discusses strategies for minimizing tax liability through legitimate means, such as claiming deductions and credits.

Finally, the document concludes with a section on the importance of financial planning. It stresses that a well-thought-out financial plan is essential for the long-term success of any business. This plan should take into account all aspects of the company's financial health, including its assets, liabilities, and cash flow. The document encourages businesses to review their financial plans regularly and make adjustments as needed to stay on track.

11. The urban community has a much wider range of occupational opportunities than rural areas and many urban jobs require a minimum of college training for entry.

12. Farm boys' early socialization takes place where farming is the principal, if not the only occupation.

Standardized data were not used in the analysis of the second hypothesis. The actual data supported the hypothesis that levels of educational attainment are generally higher for rural-farm females than for rural-farm males while levels of educational attainment are generally higher for nonfarm females than for nonfarm males except that more nonfarm males than nonfarm females have completed one or more years of college.

Some possible reasons for more nonfarm males and more rural-farm females completing one or more years of college may include the following:

1. Family influences on educational plans are exerted earlier in the school careers of girls than boys.

2. A college education is more important in preparing males for a desirable occupation.

3. Farm boys do not see a college education as necessary for success in farming.

4. Females, both rural and urban, are competing for the same jobs in an urban job market.

Conclusions

The importance of the level of educational attainment is found in its interrelations with other phenomena in American society such as occupation, income, status or social position in the community, economic and social mobility, certain buying habits, many attitudes and opinions, and a great variety of other elements in human life.

The number of opportunities to enter farming is decreasing while the skill level required to farm successfully is increasing. In view of the long-run and probably continuing decrease in farm employment opportunities, many young farm males will have to seek nonfarm jobs in urban areas.

Educational requisites for high status nonagricultural jobs are increasing and education beyond high school is certain to be much more important as a determinant of life chances of all youth than in the past.

Suggestions for Future Research

1. Studies similar to the present study should be done in other states. At such time as this is done, comparisons should be made to determine similarities and differences in educational attainment between states.

2. Studies similar to this should be done with each successive Census to determine the level of educational attainment at given points in time as well as to show the differences in attainment at successive points in time.

3. More studies should be done to find explanations for the male-female, white-nonwhite, and rural-farm-nonfarm differences in levels of educational attainment.

4. Folger and Nam also suggest research needed in this area. "If formal schooling itself will account for less of the variation in occupational choice in the future than at present, it will become increasingly important to identify and measure the effect of other factors. A person's level of ability, his social origins, and which school he attends and his level of performance within them, may become more important than the mere fact of attendance or graduation. Such information is not available from census studies, but it may need to be collected along with other census information in order to explain such changing relationships as those of education to occupation."¹

¹ John K. Folger and Charles B. Nam. "Trends in Education in Relation to the Occupational Structure," Sociology of Education, 38 (Fall 1964), 33.

Bibliography

Census Materials

Current Population Reports Population Characteristics, Series P-20,
No. 99, U.S. Dept. of Commerce, Bureau of the Census, February 4, 1960.

United States Census of Population 1960, Michigan Detailed Characteristics, PC(1)24D.

United States Census of Population 1960, Michigan General Social and Economic Characteristics, PC(1)24C.

United States Census of Population 1960, State Economic Areas, PC(3)-1A.

United States Census of Population 1960, Unpublished Census Data on Years of School Completed by Persons 25 and Over in Michigan by County.

Books

Barclay, George W. Techniques of Population Analysis, New York: John Wiley and Sons, Inc., 1958.

Bernert, Eleanor H. America's Children, New York: John Wiley and Sons, Inc., 1958.

Bogue, Donald J. The Population of the United States, Glencoe, Ill.: The Free Press, 1959.

Brookover, Wilbur B. and David Gottlieb. A Sociology of Education, New York: American Book Company, 1964.

Sexton, Patricia Cayo. Education and Income Inequalities in Our Public Schools, New York: The Viking Press, 1961.

Taeuber, Conrad and Irene B. Taeuber. The Changing Population of the United States, New York: John Wiley and Sons, Inc., 1958.

United States Statistical Abstract of 1963.

Articles

Burchinal, Lee G. "Differences in Educational and Occupational Aspirations of Farm, Small Town, and City Boys," Rural Sociology, 26(1961), 107-121.

Cowhig, James D. "Early Occupational Status as Related to Education and Residence," Rural Sociology, 27(1962), 18-27.

Bibliography Cont.

Articles Cont.

- Eckland, Bruce K. "Social Class and College Graduation: Some Misconceptions Corrected," American Journal of Sociology, 70(July 1964), 36-50.
- Elder, Glen H. "Achievement Orientations and Career Patterns of Rural Youth," Sociology of Education, 37(Fall 1963), 30-58.
- Folger, John K. and Charles B. Nam. "Educational Trends from Census Data," Demography, 1(1964), 247-257.
- Folger, John K. and Charles B. Nam. "Trends in Education in Relation to the Occupational Structure," Sociology of Education, 38(Fall 1964), 19-33.
- Gist, Noel P. and William S. Bennett, Jr. "Aspirations of Negro and White Students," Social Forces, 42(October 1963), 40-48.
- Haller, A. O. "The Occupational Achievement Process of Farm-Reared Youth in Urban-Industrial Society," Rural Sociology, 25(1960), 321-333.
- McDill, Edward L. and James Coleman. "Family and Peer Influences in College Plans of High School Students," Sociology of Education, 38 (Winter 1965), 112-126.
- McDill, Edward L. and James S. Coleman. "High School Social Status, College Plans and Interest in Academic Achievement: A Panel Analysis," American Sociological Review, 28(1963), 905-918.
- Parsons, Talcott. "Age and Sex in the Social Structure of the United States," American Sociological Review, 7(1942), 604-616.
- Sewell, William H. "Community of Residence and College Plans," American Sociological Review, 29(1964), 24-38.
- Straus, Murray A. "Societal Needs and Personal Characteristics in the Choice of Farm, Blue Collar, and White Collar Occupations by Farmers' Sons," Rural Sociology, 29(December 1964), 408-425.

Reports

- Age-Grade School Progress of Farm and Nonfarm Youth: 1960, Washington: Economic Research Service, Agricultural Economic Report No. 40, August, 1963.
- Bertrand, Alvin L. and Marion B. Smith. "Environmental Factors and School Attendance, A Study in Rural Louisiana," Louisiana State University and Agricultural and Mechanical College in cooperation with Agricultural Marketing Service, U.S. Dept. of Agriculture, May, 1960, Bulletin No. 533.

Bibliography Cont.

Reports Cont.

School Dropout Rates Among Farm and Nonfarm Youth: 1950 and 1960,
Washington: Economic Research Service, Agricultural Economic Report
No. 42, September, 1963.

Unpublished Materials

Beegle, J. Allan. "Educational Status of the Rural-Farm and Rural-Nonfarm Population," Chapter 5, preliminary paper, (Mimeographed).

Beegle, J. Allan. "Population and Education," Chapter in Gottlieb book and preliminary draft of Education chapter in Rural America Monograph, (mimeographed).

Brookover, W. B. "Educational Policies and Educational Practices," paper presented at the University of Mississippi.

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