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A STATISTICAL STUDY OF THE BIRTH-RATE
OF CHILDREN BORN OUT OF WEDLOCK
IN THE STATE OF TENNESSEE, 1944-1954

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY

Jessie Carney Smith
1955



**A STATISTICAL STUDY OF THE BIRTH-RATE OF
CHILDREN BORN OUT OF WEDLOCK IN THE
STATE OF TENNESSEE, 1944-1954**

by

Jessie Carney Smith

A THESIS

**Submitted to the College of Education of Michigan
State University of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of**

MASTER OF ARTS IN CHILD DEVELOPMENT

Department of Foundations of Education

1955

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TABLE OF CONTENTS

TABLE	PAGE
I. INTRODUCTION	1
Purpose	2
Review of Literature	3
Definition of Terms	7
Subjects, Data and Procedure	8
II. RESULTS	11
A Distribution of Births in Wedlock and out of Wedlock in Tennessee	11
A Distribution of Negro Births in Wedlock and out of Wedlock in Tennessee	13
A Distribution of White Births in Wedlock and out of Wedlock in Tennessee	14
Percentage Distribution of Negro and White Children Born out of Wedlock in Tennessee	15
Age Distribution of Unwed Negro and White Mothers, 1944	17
Age Distribution of Unwed Negro and White Mothers, 1946	17
Age Distribution of Unwed Negro and White Mothers, 1948	20
Age Distribution of Unwed Negro and White Mothers, 1950	22
Age Distribution of Unwed Negro and White Mothers, 1952	22
Age Distribution of Unwed Negro and White Mothers, 1954	25

1. The first part of the document discusses the importance of maintaining accurate records of all transactions, including sales, purchases, and expenses. It emphasizes the need for a systematic approach to record-keeping, such as using a ledger or accounting software, to ensure that all data is properly documented and organized.

2. The second part of the document focuses on the importance of regular reconciliation. This involves comparing the company's internal records with external statements, such as bank statements or supplier invoices, to identify any discrepancies or errors. Regular reconciliation helps to ensure the accuracy of the financial data and allows for the timely identification and correction of mistakes.

3. The third part of the document discusses the importance of maintaining proper documentation for all financial transactions. This includes keeping receipts, invoices, and other supporting documents for a sufficient period of time to allow for verification and audit. Proper documentation is essential for ensuring the integrity of the financial records and for providing evidence in the event of a dispute or audit.

4. The fourth part of the document discusses the importance of maintaining accurate records of all assets and liabilities. This includes tracking the value of the company's assets, such as equipment and inventory, and the value of its liabilities, such as loans and accounts payable. Accurate records of assets and liabilities are essential for determining the company's net worth and for making informed decisions about its financial future.

5. The fifth part of the document discusses the importance of maintaining accurate records of all income and expenses. This includes tracking the company's revenue from sales and other sources, as well as its operating expenses, such as salaries, rent, and utilities. Accurate records of income and expenses are essential for determining the company's profitability and for making informed decisions about its financial future.

6. The sixth part of the document discusses the importance of maintaining accurate records of all taxes and other legal obligations. This includes tracking the company's tax liabilities, such as income tax and sales tax, and its other legal obligations, such as payroll taxes and workers' compensation. Accurate records of taxes and other legal obligations are essential for ensuring compliance with applicable laws and regulations and for avoiding penalties and fines.

7. The seventh part of the document discusses the importance of maintaining accurate records of all financial statements. This includes preparing and maintaining accurate balance sheets, income statements, and cash flow statements. Accurate financial statements are essential for providing a clear and concise overview of the company's financial performance and for making informed decisions about its financial future.

8. The eighth part of the document discusses the importance of maintaining accurate records of all financial transactions. This includes tracking all sales, purchases, and expenses, as well as all income and expenses. Accurate records of all financial transactions are essential for ensuring the integrity of the financial records and for providing evidence in the event of a dispute or audit.

9. The ninth part of the document discusses the importance of maintaining accurate records of all assets and liabilities. This includes tracking the value of the company's assets, such as equipment and inventory, and the value of its liabilities, such as loans and accounts payable. Accurate records of assets and liabilities are essential for determining the company's net worth and for making informed decisions about its financial future.

10. The tenth part of the document discusses the importance of maintaining accurate records of all income and expenses. This includes tracking the company's revenue from sales and other sources, as well as its operating expenses, such as salaries, rent, and utilities. Accurate records of income and expenses are essential for determining the company's profitability and for making informed decisions about its financial future.

CHAPTER	PAGE
Age Distribution of Negro and White Unwed Mothers, 1944-1954	27
Distribution of Negro Births in Wedlock and out of Wedlock in the Urban and Rural Community	27
Distribution of White Births in Wedlock and out of Wedlock in the Urban and Rural Community	31
Number and Percentage of Negro and White Children Born out of Wedlock in Tennessee, 1944-1954	33
III. INTERPRETATION AND DISCUSSION	36
The Trend in Births out of Wedlock	36
Distribution of Negro Children Born in and out of Wedlock, 1944-1954	37
Distribution of White Children Born in and out of Wedlock, 1944-1954	38
Age Distribution of Unwed Negro and White Mothers, 1944-1954	38
Distribution of Births out of Wedlock in the Urban and Rural Community	40
Racial Distribution of Births out of Wedlock	42
Recommendations	43
Limitations	44
IV. SUMMARY AND CONCLUSIONS	45
Summary	45
Conclusions	50
BIBLIOGRAPHY	51

..... 1- 1, 1, 1

..... 1

.....

.....

..... 1- 1, 1, 1

.....

.....

..... 1- 1, 1

..... 1- 1, 1

..... 1- 1, 1

..... 1- 1, 1

..... 1

.....

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.....

..... 1

..... 1

.....

LIST OF TABLES

TABLE	PAGE
I. Distribution of Children Born out of Wedlock in Tennessee, 1944-1954	12
II. Distribution of Negro Children Born out of Wedlock in Tennessee, 1944-1954	13
III. Distribution of White Children Born out of Wedlock in Tennessee, 1944-1954	15
IV. The t Ratio of the Difference Between the Percentage of 2493 Unwed Negro Mothers and 1292 Unwed White Mothers in Tennessee at Respective Age Categories, 1944	18
V. The t Ratio of the Difference Between the Percentage of 2114 Unwed Negro Mothers and 1381 Unwed White Mothers in Tennessee at Respective Age Categories, 1946	19
VI. The t Ratio of the Difference Between the Percentage of 2728 Unwed Negro Mothers and 1392 Unwed White Mothers in Tennessee at Respective Age Categories, 1948	21
VII. The t Ratio of the Difference Between the Percentage of 3294 Unwed Negro Mothers and 1386 Unwed White Mothers in Tennessee at Respective Age Categories, 1950	23
VIII. The t Ratio of the Difference Between the Percentage of 3462 Unwed Negro Mothers and 1420 Unwed White Mothers in Tennessee at Respective Age Categories, 1952	24
IX. The t Ratio of the Difference Between the Percentage of 4401 Unwed Negro Mothers and 1609 Unwed White Mothers in Tennessee at Respective Age Categories, 1954	26
X. Total Number of Negro and White Unwed Mothers in Tennessee at Respective Age Categories, 1944-1954	28

TABLE

PAGE

XI.	A t Ratio Comparison of the Number and Percentage of Urban and Rural Negro Births out of Wedlock in Tennessee, 1944-1954 . .	30
XII.	A t Ratio Comparison of the Number and Percentage of Urban and Rural White Births out of Wedlock in Tennessee, 1944-1954 . .	32
XIII.	A t Ratio Comparison of the Number and Percentage of Negro and White Children Born out of Wedlock in Tennessee, 1944-1954 . .	34

LIST OF FIGURES

FIGURE	PAGE
1. A Percentage Distribution of Negro and White Children Born out of Wedlock in the State of Tennessee, 1944-1954	16
2. A Percentage Distribution of Unwed Negro and White Mothers at Respective Age Categories, Tennessee, At Sample Years Between 1944-1954	29

CHAPTER I

INTRODUCTION

Studies of children born out of wedlock show that these births vary with the socio-economic status of the persons concerned and coexists with other social problems.

"Children born out of wedlock are confronted with many serious hazards . . . The infant mortality rate among them is from two to three times higher than among children born in wedlock. Most of them are deprived of normal family life, and their histories as a rule show repeated changes from one caretaker to another."¹

As "illegitimacy" is frequently associated with infanticide, abortion, premature births, stillbirths, and promiscuity, the problem of births out of wedlock becomes a concern of health authorities and those interested in the well-being of the general population. The problem is of interest in the field of child development because it creates the social setting in which a child lives and will grow from infancy to maturity.

In many cases the unwed mother who comes to the attention of various agencies working with this problem is

¹
James H. S. Bossard, The Sociology of Child Development (New York: Harper and Brothers, 1948), p. 577.

1. The first part of the report is a general
description of the project and its objectives.
2. The second part is a detailed description of the
methodology used in the study.

3. The third part is a description of the results
of the study. This part includes a table of
data and a graph showing the results of the
study. The table shows the results of the study
for each of the four groups of subjects.

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each of the four groups of subjects.

5. The fifth part is a conclusion of the study.
This part includes a conclusion of the study and
a discussion of the implications of the results of
the study.

6. The sixth part is a list of references.
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herself a child. Not only is she unable to provide for the maintenance of her offspring, but she is in need of training and reeducation before she can be expected to assume the responsibilities of adult life. Any attempt to help children develop socially has to be founded on a philosophy which expresses the framework within which these attempts will be made. It requires further the ability to identify those in need of help and their readiness to use such help. Only when this has been done can we proceed to help each child develop socially and in the direction he has chosen.

Wise and adequate parenthood requires that parents assume the responsibility for child development, creating the necessary opportunities for their children to grow into healthy and happy adults, for every child needs the security and love of a normal family.

Purpose

It is the purpose of this investigation to determine the extent to which births out of wedlock in the State of Tennessee have increased or decreased over the period 1944-1954.

More specifically, information was sought relative to the age of the mother, the race of the children born

out of wedlock and the urban and rural community with respect to the following questions: (1) What is the trend in terms of the frequency of births out of wedlock in the State of Tennessee over the eleven-year period? (2) What is the age distribution of the mothers of these children born out of wedlock? (3) What is the distribution of births out of wedlock with respect to urban and/or rural community? (4) Is there a significant racial difference in births out of wedlock over the period?

Review of Literature

To protect children born out of wedlock, important data are confidential and, therefore, inaccessible to investigators interested in making a systematic study. The subject of "illegitimacy", if and when discussed, is often couched in legal and moral terms. Very little empirical data have been assembled on the problem because of the difficulties in obtaining significant data.

Trigg's 1950 study on "illegitimacy" has a direct relationship to this investigation. It was the aim of her investigation "to isolate some of the cultural-social factors that are associated with illegitimacy."² The

²
Martelle D. Trigg, "An Analysis of Illegitimacy by Natural Areas in Memphis, Tennessee, 1950" (unpublished Master's thesis, Fisk University, Nashville, Tennessee, 1950), p. 1.

ecological approach was used in this study because it was felt that such an approach would have more objective data which permits statistical analysis. This approach would also tend to distribute "illegitimacy" according to the natural areas where cultural forces producing the problem could be described and analyzed statistically. Therefore in using census tract data the following hypothesis was formed: "Certain groups of census tracts have higher rates of illegitimacy than others and that census tracts with high rates of illegitimacy are different quantitatively in their attributes of socio-economic factors from others with lower rates of illegitimacy."³

Following this approach the rates of births out of wedlock were computed for the city of Memphis by census tracts. Memphis is divided into 90 small geographical units for the purpose of census enumeration. Of the 90 census tracts in Memphis, 49 had ten or more live births during 1950 and those tracts were used in the analysis of social factors associated with births out of wedlock. Tracts having less than ten live births were omitted because it was felt that they would present an unrealistic picture of the situation. The rate of "illegitimacy" for

³

Ibid., p. 10.

• • • • •

each census tract was computed by dividing the number of births out of wedlock by the number of live births and multiplying by 1000. These rates were then correlated with other social data such as population distribution, marital status, sex ratio, occupation, income, contract monthly rent and education.

Q, the coefficient of association, was then computed in order to measure the closeness of the association between the rate of births out of wedlock and the social-economic factors involved. By using Q, it was possible to determine the existence of association, and the nature of the association.

The proportion of Negro men and women in the labor force who were engaged in professional and/or managerial occupations were computed and natural divisions obtained. Other associated factors were then measured against these natural areas and generalizations drawn as to the validity of the groupings and distribution of births out of wedlock over the city of Memphis. Analyses were made keeping in mind the social and economic status of the group.

The data for this study were obtained from the United States Bureau of Census and from the Bureau of Vital Statistics of Memphis and Shelby County Health Department. From the United States Census Bureau came 1950 statistics

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

3. The third part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

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10. The tenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

of population for Memphis, Tennessee by Census Tracts, including the population by age, sex and race, marital status of the subjects, sex ratio, occupational groupings, school grade completed, contract monthly rent, average income, and so forth. A serious limitation of this study was made by the existing pattern of segregation in Memphis --which made it difficult to isolate the natural areas of a city.

The findings of this study were: "(1) In general, the higher the percentage of professional and managerial persons the lower the rate of illegitimacy; (2) median income became lower as the per cent of professional and managerial persons became lower; (3) median rentals became lower as the per cent in professional and managerial classes decreased; (4) as to education, as per cent of professional and managerial classes decreased so did the median school years completed."⁴

The major conclusion drawn from this presentation is that "Illegitimacy has nothing to do with race but it is the product of social conditions such as obtained in the slum areas of a city; those cultural factors and forces operate to keep the individual in the lower class status and produce other facts of social disorganization as well as illegitimacy."⁵

⁴

Ibid., p. 46.

⁵

Ibid., p. 47.

• 1. The first step in the process of creating a new product is to identify a market need. This involves conducting market research to determine what consumers want and what problems they are trying to solve. Once a need is identified, the next step is to develop a concept for a product that addresses that need. This often involves brainstorming and sketching out ideas for the product's features and design.

• 2. The second step is to create a prototype of the product. This allows the designer to test the product's functionality and make any necessary adjustments before moving forward with production. Prototyping can be done in a variety of ways, from simple 3D printing to more complex methods like CNC machining. Once a prototype is created, it is typically tested by a group of people who provide feedback on its usability and appeal. This feedback is then used to refine the product design.

• 3. The third step is to create a business plan for the product. This document outlines the product's market, the competition, and the financial projections for the business. It also includes information about the marketing and distribution strategy. A business plan is essential for securing funding from investors or lenders, as it provides a clear picture of the business's potential and the steps that will be taken to bring the product to market.

Definition of Terms

For this study the term "Born out of Wedlock" will carry the same meaning as "illegitimate". The writer chose this term because she felt that the term "illegitimate", in reference to unwed mothers, is stigmatizing in nature and should be deleted.

The following definitions of terms have also been selected:

"Illegitimate" - Any child born to a woman who has never been legally married or who has been widowed, divorced or separated (by continental limits or incarceration) sufficiently long to exclude the husband from being the father of the child.

"Live Birth" - The birth of a child who shows evidence of life after the child is entirely outside of the mother.

"Rural Community" - That area of a county included in incorporated cities of less than 10,000 population.

"Urban Community" - That area of a county included in incorporated cities of 10,000 or more population.

"Vital Statistics" - The collection of vital records (births, deaths, stillbirths, adoptions, legitimations, marriages and divorces), their preservation for use and the preparation and compilation of data for public health purpose."⁶

⁶
Tennessee Department of Public Health, Registration Manual (Nashville: Division of Vital Statistics, 1947), p. 2.

Subjects, Data and Procedure

Subjects

The subjects of this investigation were the total number of live births of children born in wedlock and out of wedlock to residents of the State of Tennessee in 1944, 1946, 1948, 1950, 1952 and 1954.

Data

The data for this study were obtained from the files of the Director of Statistical Services, Tennessee Department of Public Health, Nashville, Tennessee. These data included the age of the mothers of children born out of wedlock, the race of the children born in and out of wedlock, and the status of the community, that is, whether the community was urban or rural. Data for the years 1944, 1946, 1948, 1950, 1952 and 1954 were used because the writer felt that samplings from these years would be sufficient to determine the pattern of distribution of births out of wedlock over the eleven-year period.

Procedure

The procedures used in gathering and analyzing data and testing the results of these data were as follows:

1. The total number of Negro and white children born in Tennessee in 1944, 1946, 1948, 1950, 1952 and 1954 were recorded from charts in the files of the Tennessee Department of Vital Statistics. The total number of Negro and white children born in and out of wedlock in urban and rural communities in Tennessee during these years were recorded. Charts also provided the age categories of the unwed Negro and white mothers at the time children were born to them.

2. After the data were gathered, percentages of births out of wedlock were determined. Percentages were calculated for the Negro and white children born out of wedlock. The status of the community, that is, whether urban or rural, was determined for Negro and white children born in and out of wedlock, and percentages of Negro and white births out of wedlock were calculated. The t ratio was then computed to determine whether or not the difference between the percentages was a real difference or a difference that could be attributed to chance.

Percentages were then calculated for the ages of the Negro unwed mothers and white unwed mothers at the various age categories and t ratios computed for each age category to determine whether or not the difference between the percentages at each age category was a real difference or a difference that could be attributed to chance.

3. Appropriate graphic methods were then employed to bring out the full meaning of these data.

CHAPTER II

RESULTS

A Distribution of Births in Wedlock and out of Wedlock in Tennessee, 1944, 1946, 1948, 1950, 1952 and 1954

Table I, page 12, shows that there has been a steady increase in the total number of births in Tennessee for each of the six years selected, except in 1950 when there was a slight drop in the total. In respect to the number of children born out of wedlock in Tennessee during this period, there has also been a steady increase except for the year 1946. In 1946 there was a slight drop in the number born out of wedlock, even though the total number of births were increasing. There was a drop in the total number of births in 1950 but there was also a rise in the number born out of wedlock in that year.

In respect to the percentage of children born out of wedlock as compared to the total number of births, there has been a steady increase in the percentage, except for the years 1946 and 1948 when the percentage dropped slightly. It is significant to note that there was an increase in the total number of births in Tennessee in these years.

TABLE I

DISTRIBUTION OF CHILDREN BORN OUT OF WEDLOCK IN
TENNESSEE, 1944, 1946, 1948, 1950, 1952 and 1954

Year	Total Births	Born Out of Wedlock	Percent Out of Wedlock
1944	67100	3790	5.6
1946	75839	3502	4.6
1948	81490	4124	4.0
1950	80559	4680	5.8
1952	81750	4886	6.0
1954	85401	6012	7.0

A Distribution of Negro Births in Wedlock and out of
Wedlock in Tennessee, 1944, 1946, 1948,
1950, 1952 and 1954

Table II, below, shows that there has been a steady increase in the total number of Negro children born out of wedlock in Tennessee in 1944, 1946, 1948, 1950, 1952 and 1954. Further, it shows that there has been a steady increase in the number of Negro children born out of wedlock in Tennessee during the six years selected, except for the year 1946. In 1946 there was a drop in the number born out of wedlock. Percentages in this table show that even though there was a drop in the number of births out of wedlock in 1946, the percentage was lower in 1948 than in 1946.

TABLE II

DISTRIBUTION OF NEGRO CHILDREN BORN OUT OF WEDLOCK IN
 TENNESSEE, 1944, 1946, 1948, 1950, 1952 and 1954

Year	Total Negro Births		Percentage Born Out of Wedlock
	In Wedlock	Out of Wedlock	
1944	10731	2493	23.2
1946	11588	2114	18.2
1948	14480	2728	18.1
1950	16006	3294	20.6
1952	16406	3462	21.1
1954	17907	4401	24.6

It is significant to note that there was a decrease in the percentage of Negro children born out of wedlock in 1946 and 1948 while the number born out of wedlock decreased only in 1946, and the total number of births were steadily increasing.

A Distribution of White Births in Wedlock and out of
Wedlock in Tennessee, 1944, 1946, 1948,
1950, 1952 and 1954

Table III, page 15, shows that there has been a steady increase in the total number of white children born in Tennessee in 1944 through 1948, but the number dropped in 1950 and increased in 1952. It was not until 1954 that the figure exceeded that of 1948.

In regard to the number of white children born out of wedlock in Tennessee in the six years selected, there has been a steady increase during the period, except for the year 1950. In 1950 the number of white children born out of wedlock dropped. It should be pointed out here that there was also a decrease in the total number of white births in that year.

The percentage of white children born out of wedlock shows no appreciable increase or decrease during the years selected. The percentage was higher in 1944

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt$$

for $x \in \mathbb{R}$. It is shown that $f(x)$ is an odd function and that $f(x) \in (-\frac{\pi}{2}, \frac{\pi}{2})$ for all $x \in \mathbb{R}$. Moreover, it is proved that $f(x)$ is strictly increasing and concave down on $(0, \infty)$ and strictly decreasing and concave up on $(-\infty, 0)$.

2. In the second part, we consider the function $g(x)$ defined by the equation

$$g(x) = \int_0^x \frac{t}{1+t^2} dt$$

for $x \in \mathbb{R}$. It is shown that $g(x)$ is an even function and that $g(x) \in (-\frac{\pi}{4}, \frac{\pi}{4})$ for all $x \in \mathbb{R}$. Moreover, it is proved that $g(x)$ is strictly increasing on $(0, \infty)$ and strictly decreasing on $(-\infty, 0)$.

3. In the third part, we consider the function $h(x)$ defined by the equation

$$h(x) = \int_0^x \frac{t^2}{1+t^2} dt$$

for $x \in \mathbb{R}$. It is shown that $h(x)$ is an odd function and that $h(x) \in (-\frac{\pi}{4}, \frac{\pi}{4})$ for all $x \in \mathbb{R}$. Moreover, it is proved that $h(x)$ is strictly increasing and concave down on $(0, \infty)$ and strictly decreasing and concave up on $(-\infty, 0)$.

4. In the fourth part, we consider the function $k(x)$ defined by the equation

$$k(x) = \int_0^x \frac{t^3}{1+t^2} dt$$

for $x \in \mathbb{R}$. It is shown that $k(x)$ is an even function and that $k(x) \in (-\frac{\pi}{4}, \frac{\pi}{4})$ for all $x \in \mathbb{R}$. Moreover, it is proved that $k(x)$ is strictly increasing on $(0, \infty)$ and strictly decreasing on $(-\infty, 0)$.

5. In the fifth part, we consider the function $l(x)$ defined by the equation

$$l(x) = \int_0^x \frac{t^4}{1+t^2} dt$$

for $x \in \mathbb{R}$. It is shown that $l(x)$ is an odd function and that $l(x) \in (-\frac{\pi}{4}, \frac{\pi}{4})$ for all $x \in \mathbb{R}$. Moreover, it is proved that $l(x)$ is strictly increasing and concave down on $(0, \infty)$ and strictly decreasing and concave up on $(-\infty, 0)$.

than in 1946, 1948, 1950 and 1952, even though figures show an increase in total white births up through 1948.

TABLE III

DISTRIBUTION OF WHITE CHILDREN BORN OUT OF WEDLOCK IN TENNESSEE, 1944, 1946, 1948, 1950, 1952 and 1954

Year	Total White Births		Percentage Born Out of Wedlock
	In Wedlock	Out of Wedlock	
1944	56357	1292	2.3
1946	64234	1381	2.1
1948	67006	1392	2.1
1950	64541	1386	2.1
1952	65334	1420	2.2
1954	67492	1609	2.4

A Percentage Distribution of Negro and White Children Born out of Wedlock in Tennessee, 1944, 1946, 1948, 1950, 1952 and 1954

Figure 1, page 16, gives a graphic picture of the Negro and white children born out of wedlock during the selected years of study.

1. The first part of the report is a summary of the work done during the year.

2. The second part is a detailed account of the experiments carried out.

3. The third part is a discussion of the results obtained.

4. The fourth part is a conclusion drawn from the work.

5. The fifth part is a list of references.

6. The sixth part is a list of symbols and abbreviations.

7. The seventh part is a list of figures.

8. The eighth part is a list of tables.

9. The ninth part is a list of appendices.

10. The tenth part is a list of footnotes.

11. The eleventh part is a list of references.

12. The twelfth part is a list of symbols and abbreviations.

13. The thirteenth part is a list of figures.

14. The fourteenth part is a list of tables.

15. The fifteenth part is a list of appendices.

16. The sixteenth part is a list of footnotes.

17. The seventeenth part is a list of references.

18. The eighteenth part is a list of symbols and abbreviations.

19. The nineteenth part is a list of figures.

20. The twentieth part is a list of tables.

21. The twenty-first part is a list of appendices.

22. The twenty-second part is a list of footnotes.

23. The twenty-third part is a list of references.

24. The twenty-fourth part is a list of symbols and abbreviations.

25. The twenty-fifth part is a list of figures.

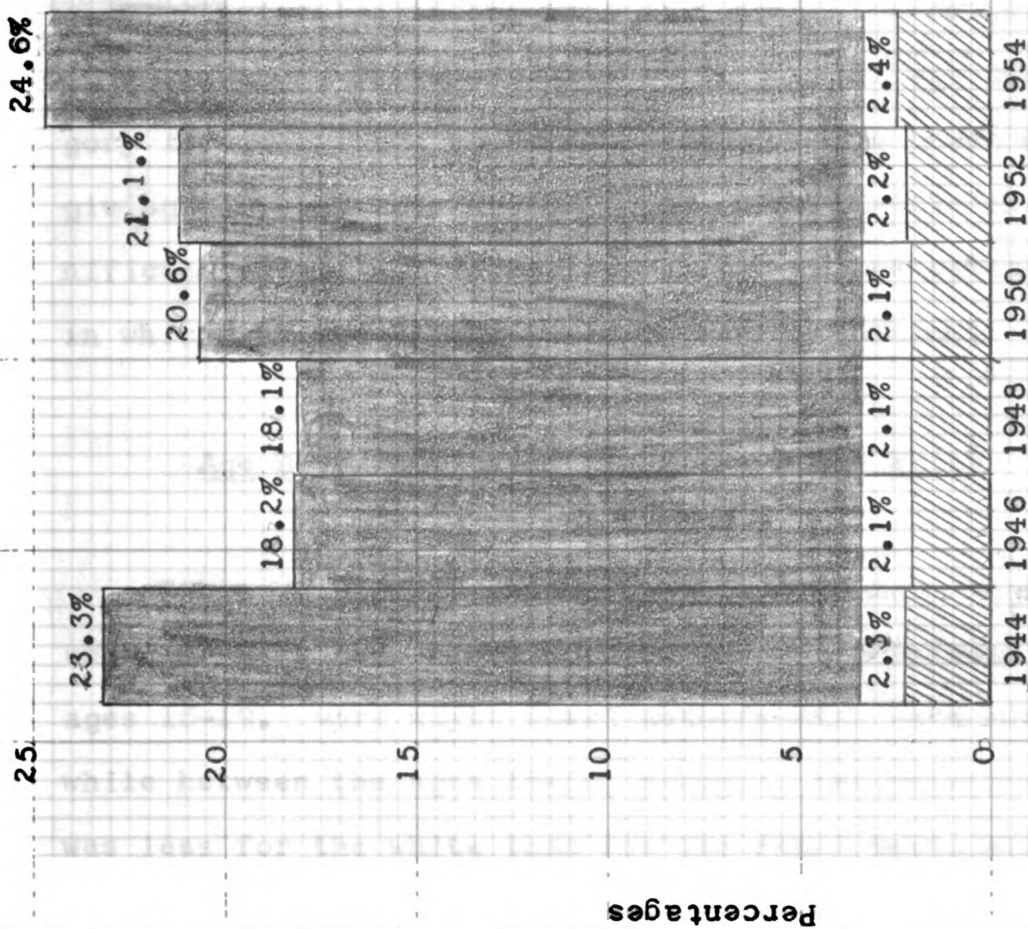


Figure 1

A PERCENTAGE DISTRIBUTION OF NEGRO AND WHITE CHILDREN
BORN OUT OF WEDLOCK IN THE STATE OF TENNESSEE, 1944-1954

SCALE

two squares = 1%

■ Negro

▨ White

1

1

1

1

1

1

1

1

1

1

1

1

1

1

11

Age Distribution of Unwed Negro and White
Mothers in Tennessee, 1944

Table IV, page 18, shows that in 1944 more unwed Negro mothers gave birth to children while between the ages 15-19 than they did at any other age category. More white unwed mothers also gave birth to children while between the ages 15-19 than at any other age category. It is significant to note that the percentage of white unwed mothers giving birth at this age category is higher than the percentage of Negro unwed mothers giving birth at this age category. The t ratio is significant at all age categories except in the category in which the age of the unwed mother is unknown.

Age Distribution of Unwed Negro and White
Mothers in Tennessee, 1946

Table V, page 19, shows that in 1946 more Negro unwed mothers gave birth to children while between the ages 15-19. More white unwed mothers also gave birth while between the ages 15-19; however, the percentage was less for the white than for the Negro unwed mothers.

It is significant to point out that the percentage of white unwed mothers in the 20-24 age category was

1. The first part of the document is a list of the names of the persons who have been named in the document.

2. The second part of the document is a list of the names of the persons who have been named in the document.

3. The third part of the document is a list of the names of the persons who have been named in the document.

4. The fourth part of the document is a list of the names of the persons who have been named in the document.

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11. The eleventh part of the document is a list of the names of the persons who have been named in the document.

12. The twelfth part of the document is a list of the names of the persons who have been named in the document.

13. The thirteenth part of the document is a list of the names of the persons who have been named in the document.

14. The fourteenth part of the document is a list of the names of the persons who have been named in the document.

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18. The eighteenth part of the document is a list of the names of the persons who have been named in the document.

19. The nineteenth part of the document is a list of the names of the persons who have been named in the document.

20. The twentieth part of the document is a list of the names of the persons who have been named in the document.

TABLE IV

THE t RATIO OF THE DIFFERENCE BETWEEN THE PERCENTAGE OF 2493 UNWED NEGRO MOTHERS AND 1292 UNWED WHITE MOTHERS IN TENNESSEE AT RESPECTIVE AGE CATEGORIES, 1944

Age of mother	Percentage giving birth out of wedlock		Difference between the percentages	S. E. of the difference	t Ratio	Interpretation
	Negro	White				
10-14	3	1	2	.43	4.65	very significant
15-19	40	42	2	.53	3.77	very significant
20-24	20	35	15	.58	25.86	very significant
25-29	13	11	2	.89	2.24	very significant
30-34	12	6	6	.66	9.09	very significant
35-39	9	3	6	.73	8.22	very significant
40-44	2	1	1	.38	2.63	very significant
45+	1	0.07	0.93	.20	4.65	very significant
Unknown	0.04	0.3	0.26	.19	1.36	not significant

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	12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TABLE V

THE t RATIO OF THE DIFFERENCE BETWEEN THE PERCENTAGE OF 2114 UNWED NEGRO MOTHERS AND 1381 UNWED WHITE MOTHERS IN TENNESSEE AT RESPECTIVE AGE CATEGORIES, 1946

Age of mother	Percentage giving birth out of wedlock		Difference between the percentages	S. E. of the difference	t Ratio	Interpretation
	Negro	White				
10-14	3	2	1	.51	1.96	very significant
15-19	47	37	10	.53	18.88	very significant
20-24	26	36	10	.32	31.25	very significant
25-29	12	14	2	.37	5.4	very significant
30-34	6	6	0	0	0	not significant
35-39	4	3	1	.63	1.6	not significant
40-44	1	1	0	0	0	not significant
45+	0.09	0.07	0.02	.09	0.22	not significant
Unknown	2	1	1	.36	2.7	very significant

only slightly lower than it was for the 15-19 age category, and significantly higher than the percentage of Negro unwed mothers in the 20-24 age category.

The t ratio is significant at all age categories except the 30-34, 35-39, 40-44 and 45/ categories, when there is no significant difference between the percentages.

Age Distribution of Unwed Negro and White
Mothers in Tennessee, 1948

Table VI, page 21, shows that in 1948 more Negro unwed mothers gave birth to children while between the ages 15-19. More white unwed mothers also gave birth while between the ages 15-19 and the percentage was also higher than that of Negro unwed mothers at this age category. The t ratio is very significant at all age categories except the 35-39, 40-44, 45/ and age unknown categories, when there is no significant difference in the t ratio.

TABLE VI

THE t RATIO OF THE DIFFERENCE BETWEEN THE PERCENTAGE OF 2728 UNWED NEGRO MOTHERS
AND 1392 UNWED WHITE MOTHERS IN TENNESSEE AT RESPECTIVE AGE CATEGORIES, 1948

Age of mother	Percentage giving birth out of wedlock		Differ- ence be- tween the percentages	S. E. of the dif- ference	t Ratio	Interpretation
	Negro	White				
10-14	4	2	2	.52	3.84	very significant
15-19	46	38	8	.32	21.87	very significant
20-24	26	33	7	.93	7.52	very significant
25-29	12	15	3	.36	8.33	very significant
30-34	6	7	1	.32	3.12	very significant
35-39	5	4	1	.68	1.47	not significant
40-44	0.07	0.6	0.1	.25	0.40	not significant
45+	0.04	0.3	0.2	.14	1.85	not significant
Unknown	0.2	0.07	0.1	.08	1.62	not significant

Age Distribution of Unwed Negro and White
Mothers in Tennessee, 1950

Table VII, page 23, shows that in 1950 more unwed Negro mothers gave birth to children while between the ages 15-19 than at any other age category. At this age category more white unwed mothers also gave birth to children than at any other age category. The percentage of unwed Negro mothers giving birth at this age category was higher than the percentage of unwed white mothers giving birth at this age category. The t ratio is very significant at all age categories except the 30-34, 35-39, 45, and age unknown categories when the t ratio shows no significant difference between the percentages.

Age Distribution of Unwed Negro and White
Mothers in Tennessee, 1952

Table VIII, page 24, shows that in 1952 more Negro unwed mothers gave birth to children while between the ages 15-19 than at any other age category. Further, the table shows that more unwed white mothers gave birth to children while between the ages 15-19 than they did at any other age category.

It is significant to note that the percentage of unwed Negro mothers giving birth at this age category is higher than the percentage of unwed white mothers

TABLE VII

THE t RATIO OF THE DIFFERENCE BETWEEN THE PERCENTAGE OF 3294 UNWED NEGRO MOTHERS AND 1386 UNWED WHITE MOTHERS IN TENNESSEE AT RESPECTIVE AGE CATEGORIES, 1950

Age of mother	Percentage giving birth out of wedlock		Difference between the percentages	S. E. of the difference	t Ratio	Interpretation
	Negro	White				
10-14	3	2	1	.29	3.44	very significant
15-19	43	39	4	.55	7.27	very significant
20-24	28	31	3	.66	6.52	very significant
25-29	13	14	1	.34	2.94	very significant
30-34	7	7	0	0	0	not significant
35-39	4	4	0	0	0	not significant
40-44	1	2	1	.39	2.56	very significant
45+	0.03	0.0	0.03	0	0	not significant
Unknown	0.3	0.5	0.2	.20	1.00	not significant

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	12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TABLE VIII

THE t RATIO OF THE DIFFERENCE BETWEEN THE PERCENTAGE OF 3462 UNWED NEGRO MOTHERS AND 1420 UNWED WHITE MOTHERS IN TENNESSEE AT RESPECTIVE AGE CATEGORIES, 1952

Age of mother	Percentage giving birth out of wedlock		Difference between the percentages	S. E. of the difference	t Ratio	Interpretation
	Negro	White				
10-14	3	1	2	.37	5.40	very significant
15-19	39	38	1	.91	5.26	very significant
20-24	28	33	5	.85	5.88	very significant
25-29	14	14	0	0	0	not significant
30-34	8	7	1	.81	1.23	not significant
35-39	4	4	0	0	0	not significant
40-44	2	2	0	0	0	not significant
45+	0.08	0.07	0.01	.08	0.12	not significant
Unknown	1	0.6	0.4	.4	1.0	not significant

giving birth at this age category. The t ratio is very significant at the 10-14, 15-19 and 20-24 age categories. The t ratio at each of the remaining categories, that is, 25-29, 30-34, 35-39, 40-44, 45+ and age unknown categories, shows no significant difference between the percentages.

Age Distribution of Unwed Negro and White
Mothers in Tennessee, 1954

Table IX, page 26, shows that in 1954 more unwed Negro mothers gave birth to children while between the ages 15-19 than they did at any other age category. It also shows that more white unwed mothers gave birth to children while between the ages 15-19. The percentage of Negro unwed mothers giving birth at this age category is higher than the percentage of white unwed mothers giving birth at this age category.

It is significant to note that the t ratio of the percentage of Negro and white unwed mothers in the 15-19 age category shows no significant difference between the percentages. The t ratio is very significant at the 20-24, 25-29 and 40-44 age categories.

TABLE IX

THE t RATIO OF THE DIFFERENCE BETWEEN THE PERCENTAGE OF 4401 UNWED NEGRO MOTHERS AND 1609 UNWED WHITE MOTHERS IN TENNESSEE AT RESPECTIVE AGE CATEGORIES, 1954

Age of mother	Percentage giving birth out of wedlock		Difference between the percentages	S. E. of the difference	t Ratio	Interpretation
	Negro	White				
10-14	2	2	0	0	0	not significant
15-19	39	38	1	.82	1.21	not significant
20-24	28	30	2	.76	2.63	very significant
25-29	15	13	2	.98	2.04	very significant
30-34	9	9	0	0	0	not significant
35-39	4	5	1	.60	1.66	not significant
40-44	1	2	1	.37	2.70	very significant
45+	0.07	0.2	0.13	.11	1.18	not significant
Unknown	0.2	0.5	0.3	.18	1.66	not significant

Age Distribution of Negro and White Unwed Mothers in
Tennessee, 1944, 1946, 1948
1950, 1952 and 1954

Table X, page 28, shows that during the years 1944, 1946, 1948, 1950, 1952 and 1954 more Negro unwed mothers gave birth to children while between the ages 15-19. More white unwed mothers also gave birth while in the 15-19 age category, but the number of Negro unwed mothers in this age category is greater than the number for white unwed mothers in this age category. Table VI, page 20 shows that the year 1948 was the only year in which the number of white unwed mothers in the 15-19 age category exceeds the number of Negro unwed mothers in this age category.

Figure 2, page 29, gives a graphic picture of the age distribution of Negro and white unwed mothers in Tennessee in 1944, 1946, 1948, 1950, 1952 and 1954.

Distribution of Negro Births in Wedlock and
out of Wedlock in the Urban and Rural
Community in Tennessee, 1944, 1946,
1948, 1950, 1952 and 1954

Table XI, page 30, shows that there has been a steady increase in the number of Negro births in urban communities in Tennessee for each of the six years selected. The number of rural births have also increased

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

2. The second part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

3. The third part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

4. The fourth part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

5. The fifth part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

6. The sixth part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

7. The seventh part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

8. The eighth part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

9. The ninth part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

10. The tenth part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

11. The eleventh part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

12. The twelfth part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

13. The thirteenth part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

TABLE X

TOTAL NUMBER OF NEGRO AND WHITE UNWED MOTHERS IN
TENNESSEE AT RESPECTIVE AGE CATEGORIES
1944-1954

Age of mother	Total number giving birth out of wedlock		Total
	Negro	White	
10-14	557	144	701
15-19	7758	3279	11037
20-24	4922	2802	7724
25-29	2518	1165	3683
30-34	1524	598	2122
35-39	921	334	1255
40-44	237	119	356
45+	12	10	22
Unknown	43	29	72
Total	18492	8480	26972

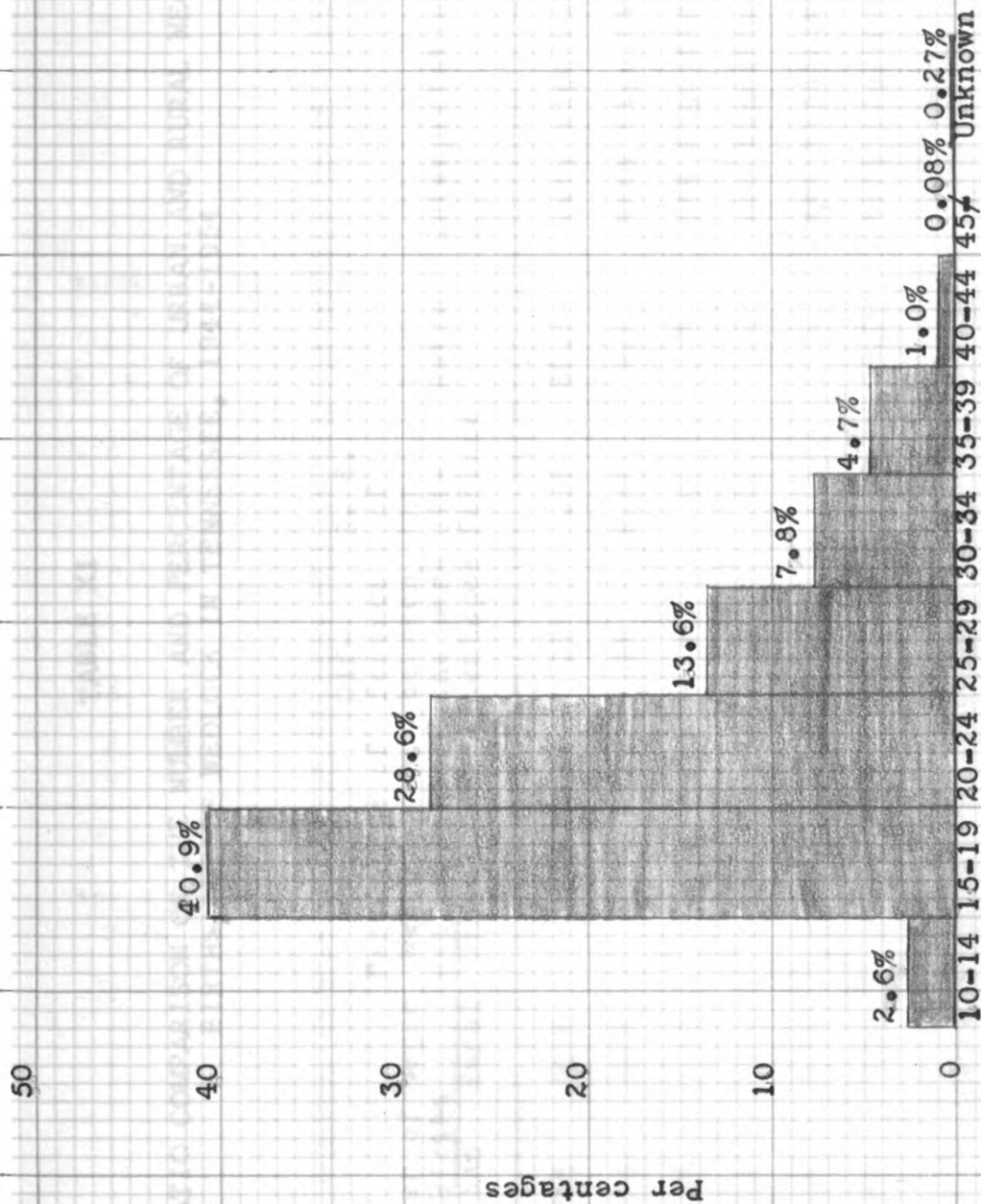


Figure 2

A PERCENTAGE DISTRIBUTION OF NEGRO AND WHITE UNWED MOTHERS AT RESPECTIVE AGE CATEGORIES, TENNESSEE, AT SAMPLE YEARS BETWEEN 1944-1954

SCALE

1 square = 1%

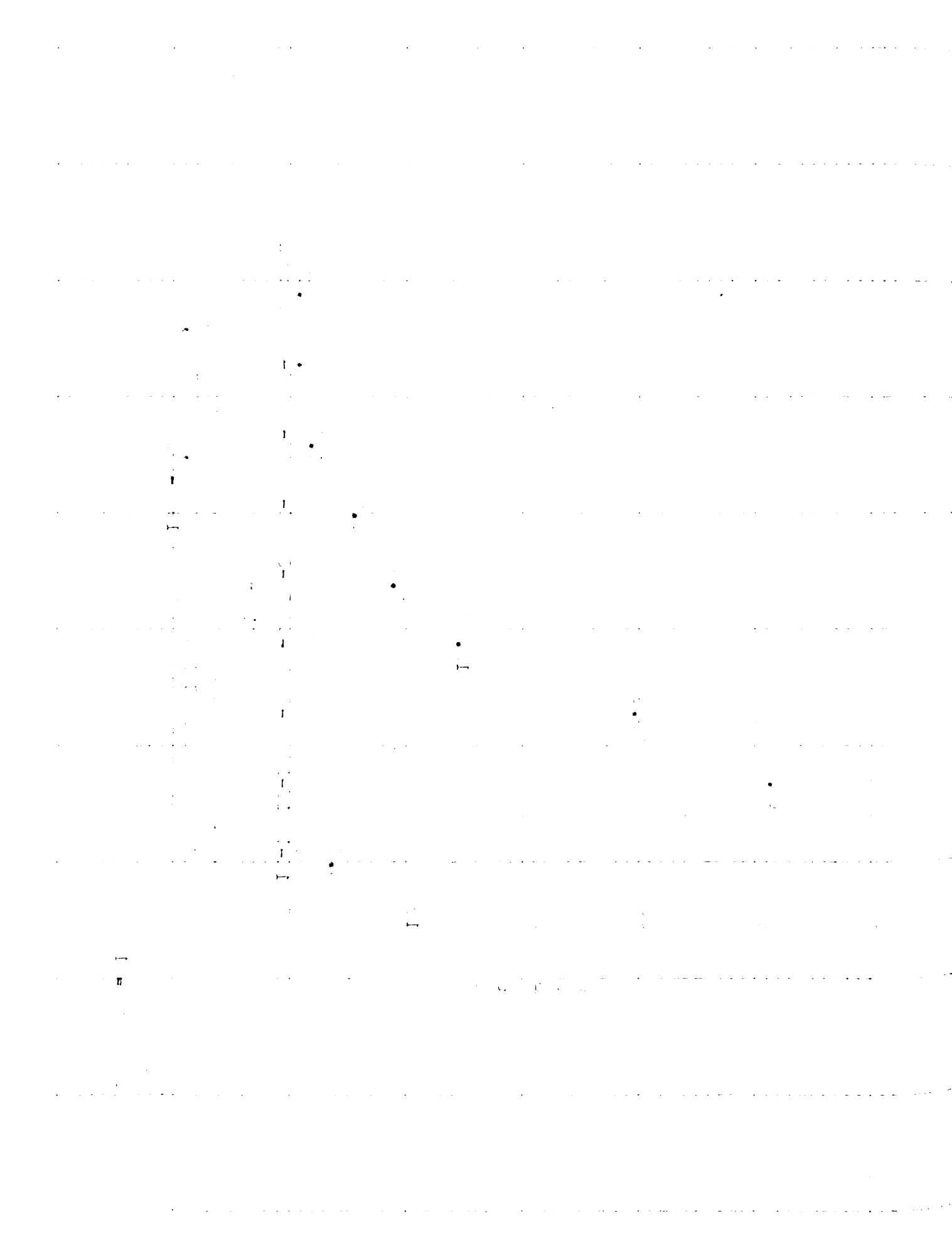


TABLE XI

A t RATIO COMPARISON OF THE NUMBER AND PERCENTAGE OF URBAN AND RURAL NEGRO
BIRTHS OUT OF WEDLOCK IN TENNESSEE, 1944-1954

Year	Number of Negro Births		Percentage of Negro Births out of Wedlock		Diff- ference between the per- dif- ference	S. E.	t	Ratio	Interpretation
	Urban	Rural	Urban	Rural					
1944	4795	5936	20	3	17	.19	89.5	very significant	
1946	5634	5954	2	16	14	1.62	8.6	very significant	
1948	7263	7217	2	2	0	0	0	not significant	
1950	8538	7478	2	2	0	0	0	not significant	
1952	9236	7170	2	2	0	0	0	not significant	
1954	10327	7580	27	2	25	.43	58.0	very significant	

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for each of the six years, except in 1952 when the number dropped to less than that of 1948. In respect to the percentage of Negro children born out of wedlock, with incidence to the status of the community, the table shows that in 1944 more Negro children were born out of wedlock in the urban community than in the rural community. The percentage was higher in the urban community in 1954 than it was in any other year in either the rural or urban community.

In 1946 more Negro births out of wedlock came from rural communities than urban communities. The percentage of rural Negro births out of wedlock was higher in 1946 than in any other year in the rural community alone.

The t ratio scores are very significant for the years 1944, 1946 and 1954; in 1948, 1950 and 1952 there is no significant difference between the percentages born in the urban and rural community.

Distribution of White Births in Wedlock and
Out of Wedlock in the Urban and Rural
Community in Tennessee, 1944, 1946,
1948, 1950, 1952 and 1954

Table XII, page 32, shows that there has been a steady increase in the number of white births in urban

TABLE XII

A t RATIO COMPARISON OF THE NUMBER AND PERCENTAGE OF URBAN AND RURAL WHITE
BIRTHS OUT OF WEDLOCK IN TENNESSEE, 1944-1954

Year	Number of White Births		Percentage of White Births out of Wedlock		Dif- ference between the per- centages	S. E.	t Ratio	Interpretation
	Urban	Rural	Urban	Rural				
1944	13288	86136	25	11	14	.37	27.8	very significant
1946	15391	48843	22	2	20	.34	5.8	very significant
1948	15677	51329	21	2	19	.60	31.7	very significant
1950	17556	46985	24	21	3	.37	8.1	very significant
1952	19051	46283	17	2	15	.27	55.5	very significant
1954	19952	47540	25	2	23	.31	74.1	very significant

communities in Tennessee for each of the six years selected. The number of rural births out of wedlock has fluctuated during the period and was lower in 1952 than it was in any other year.

In relation to the percentage of white children born out of wedlock, with incidence to the status of the community, the number in the urban community has been consistently higher than the number in the rural community. However, the percentage of white children born in urban communities show no appreciable increase or decrease over the period. The percentage was lower in 1952 than at any other one of the six years selected.

In respect to the rural white births out of wedlock, more children were born in rural communities in 1950 than in any other of the selected years.

The t ratio of the difference between the number and percentage of urban and rural whites born out of wedlock in Tennessee for sample years between 1944 and 1954 is very significant in each of the years.

Number and Percentage of Negro and White Children
Born out of Wedlock in Tennessee, 1944,
1946, 1948, 1950, 1952 and 1954

Table XIII, page 34, shows that there has been a steady increase in the number of Negro children born

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

3. The third part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

5. The fifth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

6. The sixth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

7. The seventh part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

8. The eighth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

9. The ninth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

10. The tenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

11. The eleventh part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

12. The twelfth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

13. The thirteenth part of the document is a list of the names of the persons who have been appointed to the various offices of the city of New York.

TABLE XIII

A t RATIO COMPARISON OF THE NUMBER AND PERCENTAGE OF NEGRO AND WHITE CHILDREN BORN OUT OF WEDLOCK IN TENNESSEE, 1944-1954

Year	Number of Births		Percentage of Births out of Wedlock		Dif- ference between the per- centages	S. E. of the dif- ference	t Ratio	Interpretation
	Negro	White	Negro	White				
1944	10731	56357	23	2	21	.44	47.7	very significant
1946	11588	64234	18	2	16	.35	45.7	very significant
1948	14480	67006	18	2	16	.32	50.0	very significant
1950	16006	64541	21	2	19	.31	61.3	very significant
1952	16406	65334	21	2	19	.32	59.3	very significant
1954	17907	67492	25	2	23	.32	71.8	very significant

in wedlock in Tennessee for each of the years selected, except 1948, when there was a slight decrease in the number. There was an increase in the number of white children born in wedlock in Tennessee for the years 1944, 1946 and 1948. In 1950 the number decreased and was still lower in 1952 than it was in 1948. More white children were born in Tennessee in 1954 than in any other year selected.

In respect to the percentage of Negro births out wedlock in Tennessee during this period, the percentage has been consistently higher than that of the white, and was higher in 1954 than in any other year. The percentage of white births out of wedlock in Tennessee shows no appreciable increase or decrease throughout the period. The t ratio scores are very significant for each of the years selected during the period 1944-1954.

CHAPTER III

INTERPRETATION AND DISCUSSION

The foregoing presentation has shown the extent to which births out of wedlock in the State of Tennessee have increased over the period 1944-1954. On the basis of the findings, the investigator returns to interpret and discuss the questions previously asked.

The Trend of Births Out of Wedlock in Tennessee, 1944-1954

In respect to the trend in terms of the frequency of births out of wedlock in Tennessee at sample years between 1944 and 1954, there has been a steady increase in these births, along with an increase in the number of births in wedlock. However, there was a slight decrease in total births in 1950 and a decrease in the number born out of wedlock in 1946.

The steady trend of births out of wedlock in Tennessee during this period is not unusual in comparison with the number of children born out of wedlock in the United States each year. Thornhill states that "150,000 mothers each year give birth to a child out

of wedlock."⁷ It is expected, then, that a certain number of the births in this country will be out of wedlock. The Division of Vital Statistics in Tennessee finds that "nearly 5,000 illegitimate children are born in Tennessee each year."⁸ The problem is a serious one for the entire country, just as it is a serious one for the State of Tennessee.

A Distribution of Negro Children Born in Wedlock and Out of Wedlock in Tennessee, 1944-1954

Findings show that the number of Negro children born out of wedlock increased with the total number of Negro births in Tennessee over the period of study, except in 1946 when there was a decrease in the number born out of wedlock. The percentage of Negro children born out of wedlock decreased in 1946 and 1948 but continued to increase after those years.

The fact that most Negroes in Tennessee are forced to live in poor social environments where conditions are conducive to social disorganization may account for the high percentage of their children born out of wedlock.

⁷ Margaret A. Thornhill, "Unprotected Adoptions," Children, Vol. 2, No. 5, United States Department of Health, Education and Welfare (Washington: Government Printing Office, 1955), p. 181.

⁸ _____, "The Twenty-Third Child," Tennessee Public Welfare Record, Vol. XVII (Nashville: State of Tennessee, 1954), p. 63.

A Distribution of White Children Born in Wedlock and
Out of Wedlock in Tennessee, 1944-1954

While the percentage of white children born out of wedlock has increased each year, the percentage was consistently below 3 per cent. It is possible that the pattern of racial segregation in Tennessee accounts for the significant differences between the percentages of Negro and white children born out of wedlock.

The number of play or amusement areas provided for Negroes is very limited, and little outlet is provided for the social development of Tennessee's Negro children. It is possible also that the number of play or amusement areas provided for white children is also insufficient.

Age Distribution of Unwed Negro and White
Mothers in Tennessee, 1944-1954

With respect to the age distribution of Negro and white mothers in Tennessee, the greatest number of unwed mothers gave birth to children while they were between the ages 15-19. This age category proves to be the most difficult age for young girls in Tennessee, regardless of their racial status.

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

$$f(x) = \int_0^x \frac{1}{1+t^2} dt.$$

It is shown that the function $f(x)$ is increasing and concave down on the interval $(-\infty, \infty)$.

2. The second part of the paper is devoted to the study of the properties of the function $g(x)$ defined by the equation

$$g(x) = \int_0^x \frac{1}{1+t^2} dt.$$

It is shown that the function $g(x)$ is increasing and concave down on the interval $(-\infty, \infty)$.

3. The third part of the paper is devoted to the study of the properties of the function $h(x)$ defined by the equation

$$h(x) = \int_0^x \frac{1}{1+t^2} dt.$$

It is shown that the function $h(x)$ is increasing and concave down on the interval $(-\infty, \infty)$.

4. The fourth part of the paper is devoted to the study of the properties of the function $k(x)$ defined by the equation

$$k(x) = \int_0^x \frac{1}{1+t^2} dt.$$

It is shown that the function $k(x)$ is increasing and concave down on the interval $(-\infty, \infty)$.

5. The fifth part of the paper is devoted to the study of the properties of the function $l(x)$ defined by the equation

$$l(x) = \int_0^x \frac{1}{1+t^2} dt.$$

It is shown that the function $l(x)$ is increasing and concave down on the interval $(-\infty, \infty)$.

6. The sixth part of the paper is devoted to the study of the properties of the function $m(x)$ defined by the equation

$$m(x) = \int_0^x \frac{1}{1+t^2} dt.$$

It is shown that the function $m(x)$ is increasing and concave down on the interval $(-\infty, \infty)$.

7. The seventh part of the paper is devoted to the study of the properties of the function $n(x)$ defined by the equation

$$n(x) = \int_0^x \frac{1}{1+t^2} dt.$$

The age category at which more young girls find insecurity, unrest and promiscuity is 15-19, at which time it is the responsibility of parents, teachers and the community to provide careful attention and guidance.

This problem is not limited to Tennessee alone; Thornhill states that "Some 62,000 mothers under 20 years of age give birth to a child out of wedlock each year."⁹ The unmarried girl has a real problem to face: she is physiologically ready for sexual activity, but socially immature. Society has imposed certain restrictions which prevent her from outwardly acting as she would like to act.

The unmarried girl also faces the problem of adequate medical care. When she suspects that she is pregnant she may refuse to face the possibility and postpone confirmation by medical examination as long as possible. Adequate prenatal care would aid in the prevention of (1) congenital disease transmission; (2) continuing pregnancy when measles have possibly occurred in the first three months of gestation, thereby eliminating maldevelopment of the infant and (3) the continuation of pregnancy in a female whose physical make-up is incompatible with pregnancy.

⁹

Thornhill, op. cit., pp. 181-184.

The girl's first step toward advice or help is a vital one. Her actions are controlled to a large extent by the degree of her desire to keep the condition secret and/or her desire to change the condition because of the inadequacy of her sex education.

Breckenridge and Lee suggest that "Adolescent children should have some concrete knowledge of the anatomy and physiology of the sexual mechanism of their own sex and of the opposite sex. Without such basic facts the young person is handicapped in his social and emotional experience, being far more likely to make mistakes through ignorance than through knowledge."¹⁰

Distribution of Births Out of Wedlock
in Urban and Rural Communities
in Tennessee, 1944-1954

Statistics show that there has been a greater increase in the number of urban births in Tennessee than in rural births. There is no definite trend with respect to the percentage of Negro children born out of wedlock in urban and rural communities. These findings show that Negro births out of wedlock are not greatly affected by the status of the community.

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Marian Breckenridge and Vincent Lee, Child Development (Philadelphia: W. B. Saunders, 1950), p. 511.

The percentage of white births out of wedlock during this period shows a definite trend in an increase in the urban births. Throughout the six years in study, the percentage of white urban births were consistently higher than the percentage of white rural births. There is no definite trend in the percentage of white rural births out of wedlock, as shown by the fluctuating percentages over the period.

Breckenridge and Lee state that "One of the most striking contrasts in type of environment in which children live is that between urban and rural. Whereas the country is typified by physical isolation, the city is crowded; in the country the family is a center of many activities; in cities associations of many kind supplant functions of the family."¹¹ These findings by Breckenridge and Lee indicate that the reasons for such a high percentage of births out of wedlock in the urban community are due to (1) crowded living conditions; (2) slum areas which are conducive to social disorganization, and (3) dissociation of the family group.

¹¹

Ibid., pp. 231-232.

Racial Distribution of Births Out of Wedlock
in Tennessee, 1944-1954

There has been a very significant racial difference in the birth-rate of children born out of wedlock in Tennessee over the period of study, with incidence to community status and age of the mother.

Trigg suggested in her study that although percentages of Negro children born out of wedlock were higher than the percentage of white children born out of wedlock, the fact was not conditioned by race, but is the product of certain social conditions such as obtained in the slum areas of a city; those cultural factors and forces operate to keep the individual in the lower class status and produce other facts of social disorganization as births out of wedlock. The investigator found it impossible to justify Trigg's suggestion because of the lack of certain confidential facts on the intimate lives of the subjects which would have given insight into many aspects of the problem.

It is, therefore, theorized that the significant racial difference in the birth-rate of children born out of wedlock in Tennessee over the period 1944-1954 is due largely to (1) poor living conditions for Negro families; (2) inadequate recreational facilities for the social development of Negro children, and (3) inadequate sex education on the part of adults and children.

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

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Recommendations

In view of the findings of this investigation, the writer makes the following recommendations to the State of Tennessee:

1. That increased sex education be provided for all adults and children of the state, and that this sex education include the introduction and use of contraceptive techniques. These contraceptive techniques would be introduced through public health agencies and schools to children, at the onset of puberty, and also to adults.
2. That the State Board of Education enforce existing laws of school attendance, and provide inservice training for teachers in the guidance and counseling of adolescents according to their particular problems.
3. That the State Recreation Commission provide increased recreational facilities for the residents of Tennessee, and the use of the facilities be carefully supervised and include wholesome recreation.
4. That the slum areas provided for a sizeable number of residents of the state be demolished and adequate and increased housing projects constructed, which would include recreational facilities for the total family group.

5. That increased services be provided for its unwed mothers, with immediate and special attention given to its unwed Negro mothers in view of the high incidence of births among them.

5. That the word "illegitimate" be deleted in use in reference to children born out of wedlock because of its stigmatizing nature.

Limitations

This study was limited to the years 1944, 1946, 1948, 1950, 1952 and 1954 because the investigator felt that samplings of these years would be sufficient to determine the birth-rate of children born out of wedlock in Tennessee from 1944 to 1954, with incidence to the age of mother, race, and status of the community.

A serious limitation was imposed on this study by the lack of data on the economic background of the unwed mothers. This limitation made it impossible to determine the effect of the economic status of families on the birth-rate of children out of wedlock. Tennessee offers no source for gathering such data.

CHAPTER IV

SUMMARY AND CONCLUSIONS

Summary

It was the aim of this investigation to determine the extent to which births out of wedlock have increased or decreased over the period 1944-1954.

Findings show that the problem of births out of wedlock in the State of Tennessee is a very serious one. Trigg suggested in a study related to the problem that the high rate of "illegitimacy" is due to conditions found in the social environment of the individual and that the slum conditions of the city were conducive to social disorganization of this type.

Further, Trigg pointed out that births out of wedlock have nothing to do with race but is the product of certain social conditions.

The problem is the responsibility of the community, teachers and parents, to be faced on the level of their own planning. Most children who are born out of wedlock are deprived of normal family life, and their histories often show repeated changes from one caretaker to another. Every child needs the love and security of a normal family,

yet many of these children born out of wedlock are sent to orphan homes and never provided with this particular security and love.

The unwed mother-to-be needs adequate medical attention and shelter, and she is under serious pressure. She has her own inner feelings that she must live with as well as the outward reactions of society. In many cases she is herself a child, unable to provide for the maintenance of her offspring, but in need of training and reeducation before she can be expected to assume the responsibilities of adult life.

On the basis of the findings in this investigation, the writer returns to answer the questions previously asked.

1. With respect to the trend in terms of the frequency of births out of wedlock in the State of Tennessee over the period 1944-1954, samplings from the years 1944, 1946, 1948, 1950, 1952 and 1954 show that the trend is relatively steady. There has been an increase in the number, except in 1946, when there was a slight decrease; however, there is no appreciable increase or decrease in the frequency of the births out of wedlock.

(a) With respect to the trend in terms of the frequency of Negro births out of wedlock in the State of Tennessee over the selected

period, there has been an increase in the number, except in 1948, when there was a slight decrease. The percentages show a significant decrease in 1946 and 1948; however, they show no appreciable increase thereafter.

- (b) With respect to the trend in terms of the frequency of white births out of wedlock in the State of Tennessee over the selected period, there has been a slight increase in the number, except in 1950, when there was a slight decrease. The percentages show no appreciable increase or decrease in births out of wedlock in the sample years.

2. With respect to the age distribution of the unwed mothers in the State of Tennessee from 1944 to 1954, findings show that more Negro and white unwed mothers give birth to children while they are between the ages 15-19. t Ratio scores show significant differences at each age category except at the following:

- (a) In 1944 there is no significant difference between the percentage of Negro and white unwed mothers whose ages are unknown.

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— $\frac{1}{2}$ — $\frac{1}{4}$ — $\frac{1}{8}$ — $\frac{1}{16}$ — $\frac{1}{32}$ — $\frac{1}{64}$ — $\frac{1}{128}$ — $\frac{1}{256}$ — $\frac{1}{512}$ — $\frac{1}{1024}$ — $\frac{1}{2048}$ — $\frac{1}{4096}$ — $\frac{1}{8192}$ — $\frac{1}{16384}$ — $\frac{1}{32768}$ — $\frac{1}{65536}$ — $\frac{1}{131072}$ — $\frac{1}{262144}$ — $\frac{1}{524288}$ — $\frac{1}{1048576}$ — $\frac{1}{2097152}$ — $\frac{1}{4194304}$ — $\frac{1}{8388608}$ — $\frac{1}{16777216}$ — $\frac{1}{33554432}$ — $\frac{1}{67108864}$ — $\frac{1}{134217728}$ — $\frac{1}{268435456}$ — $\frac{1}{536870912}$ — $\frac{1}{1073741824}$ — $\frac{1}{2147483648}$ — $\frac{1}{4294967296}$ — $\frac{1}{8589934592}$ — $\frac{1}{17179869184}$ — $\frac{1}{34359738368}$ — $\frac{1}{68719476736}$ — $\frac{1}{137438953472}$ — $\frac{1}{274877906944}$ — $\frac{1}{549755813888}$ — $\frac{1}{1099511627776}$ — $\frac{1}{2199023255552}$ — $\frac{1}{4398046511104}$ — $\frac{1}{8796093022208}$ — $\frac{1}{17592186044416}$ — $\frac{1}{35184372088832}$ — $\frac{1}{70368744177664}$ — $\frac{1}{140737488355328}$ — $\frac{1}{281474976710656}$ — $\frac{1}{562949953421312}$ — $\frac{1}{1125899906842624}$ — $\frac{1}{2251799813685248}$ — $\frac{1}{4503599627370496}$ — $\frac{1}{9007199254740992}$ — $\frac{1}{18014398509481984}$ — $\frac{1}{36028797018963968}$ — $\frac{1}{72057594037927936}$ — $\frac{1}{144115188075855872}$ — $\frac{1}{288230376151711744}$ — $\frac{1}{576460752303423488}$ — $\frac{1}{1152921504606846976}$ — $\frac{1}{2305843009213693952}$ — $\frac{1}{4611686018427387904}$ — $\frac{1}{9223372036854775808}$ — $\frac{1}{18446744073709551616}$ — $\frac{1}{36893488147419103232}$ — $\frac{1}{73786976294838206464}$ — $\frac{1}{147573952589676412928}$ — $\frac{1}{295147905179352825856}$ — $\frac{1}{590295810358705651712}$ — $\frac{1}{1180591620717411303424}$ — $\frac{1}{2361183241434822606848}$ — $\frac{1}{4722366482869645213696}$ — $\frac{1}{9444732965739290427392}$ — $\frac{1}{18889465931478580854784}$ — $\frac{1}{37778931862957161709568}$ — $\frac{1}{75557863725914323419136}$ — $\frac{1}{151115727451828646838272}$ — $\frac{1}{302231454903657293676544}$ — $\frac{1}{604462909807314587353088}$ — $\frac{1}{1208925819614629174706176}$ — $\frac{1}{2417851639229258349412352}$ — $\frac{1}{4835703278458516698824704}$ — $\frac{1}{9671406556917033397649408}$ — $\frac{1}{19342813113834066795298816}$ — $\frac{1}{38685626227668133590597632}$ — $\frac{1}{77371252455336267181195264}$ — $\frac{1}{154742504910672534362390528}$ — $\frac{1}{309485009821345068724781056}$ — $\frac{1}{618970019642690137449562112}$ — $\frac{1}{1237940039285380274899124224}$ — $\frac{1}{2475880078570760549798248448}$ — $\frac{1}{4951760157141521099596496896}$ — $\frac{1}{9903520314283042199192993792}$ — $\frac{1}{19807040628566084398385987584}$ — $\frac{1}{39614081257132168796771975168}$ — $\frac{1}{79228162514264337593543950336}$ — $\frac{1}{158456325028528675187087900672}$ — $\frac{1}{316912650057057350374175801344}$ — $\frac{1}{633825300114114700748351602688}$ — $\frac{1}{1267650600228229401496703205376}$ — $\frac{1}{2535301200456458802993406410752}$ — $\frac{1}{5070602400912917605986812821504}$ — $\frac{1}{10141204801825835211973625643008}$ — $\frac{1}{20282409603651670423947251286016}$ — $\frac{1}{40564819207303340847894502572032}$ — $\frac{1}{81129638414606681695789005144064}$ — $\frac{1}{162259276829213363391578010288128}$ — $\frac{1}{324518553658426726783156020576256}$ — $\frac{1}{649037107316853453566312041152512}$ — $\frac{1}{1298074214633706907132624082305024}$ — $\frac{1}{2596148429267413814265248164610048}$ — $\frac{1}{5192296858534827628530496329220096}$ — $\frac{1}{10384593717069655257060992658440192}$ — $\frac{1}{20769187434139310514121985316880384}$ — $\frac{1}{41538374868278621028243970633760768}$ — $\frac{1}{83076749736557242056487941267521536}$ — $\frac{1}{166153499473114484112975882535043072}$ — $\frac{1}{332306998946228968225951765070086144}$ — $\frac{1}{664613997892457936451903530140172288}$ — $\frac{1}{1329227995784915872903807060280344576}$ — $\frac{1}{2658455991569831745807614120560689152}$ — $\frac{1}{5316911983139663491615228241121378304}$ — $\frac{1}{10633823966279326983230456482242756608}$ — $\frac{1}{21267647932558653966460912964485513216}$ — $\frac{1}{42535295865117307932921825928971026432}$ — $\frac{1}{85070591730234615865843651857942052864}$ — $\frac{1}{170141183460469231731687303715884105728}$ — $\frac{1}{340282366920938463463374607431768211456}$ — $\frac{1}{680564733841876926926749214863536422912}$ — $\frac{1}{1361129467683753853853498429727072845824}$ — $\frac{1}{272225893536750770770699685$

- (b) In 1946 there is no significant difference between the percentages of Negro and white unwed mothers between the ages 30-34, 35-39, 40-44, 45/ and the age unknown category.
- (c) In 1948 there is no significant difference between the percentage of Negro and white unwed mothers between the ages 35-39, 40-44, 45/ and the age unknown category.
- (d) In 1950 there is no significant difference between the percentage of Negro and white unwed mothers between the ages 30-34, 35-39, 45/ and the age unknown category.
- (e) In 1952 there is no significant difference between the percentage of Negro and white unwed mothers between the ages 25-29, 30-34, 35-39, 40-44, 45/ and the age unknown category.
- (f) In 1954 there is no significant difference between the percentage of Negro and white unwed mothers between the ages 10-14, 15-19, 30-34, 35-39, 45/ and the age unknown category.

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3. The distribution of births out of wedlock with respect to urban and/or rural community shows that in the sample years there is no significant difference between the percentage of Negro births born in urban and rural communities, except in 1944, 1946 and 1954. In 1944 and 1954 more Negro births out of wedlock are in the urban community, and in 1946 more Negro births out of wedlock are in the rural community.

Further, it has been found that during the period 1944-1954, more white children born out of wedlock come from urban communities rather than rural communities.

With respect to the distribution of total births in the State of Tennessee during the selected period, more children are born in the urban community in each of the selected years.

4. With respect to the racial difference in births out of wedlock over the period, findings show that there is a significant racial difference between Negro and white births out of wedlock. The number and percentage of Negro births out of wedlock are significantly higher than the number and percentage of white births out of wedlock in each of the years selected.

Conclusions

On the basis of the findings in this investigation, the writer makes the following conclusions:

1. The trend in terms of the frequency of births out of wedlock in the State of Tennessee over the period 1944-1954 is relatively steady, and shows no appreciable increase or decrease.

2. The age distribution of these unwed mothers shows that more unwed mothers give birth to children while they are between the ages 15-19.

3. The distribution of births out of wedlock with respect to urban and/or rural community shows that more births out of wedlock are in the urban rather than the rural community.

4. There is a significant racial difference in births out of wedlock in Tennessee over the period, with percentages being significantly higher for Negroes.

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1. The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) and (2) under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

2. In the second part of the paper, the problem of the existence of solutions of the system (1) and (2) is considered under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

3. In the third part of the paper, the problem of the existence of solutions of the system (1) and (2) is considered under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

4. In the fourth part of the paper, the problem of the existence of solutions of the system (1) and (2) is considered under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

5. In the fifth part of the paper, the problem of the existence of solutions of the system (1) and (2) is considered under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

6. In the sixth part of the paper, the problem of the existence of solutions of the system (1) and (2) is considered under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

7. In the seventh part of the paper, the problem of the existence of solutions of the system (1) and (2) is considered under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

8. In the eighth part of the paper, the problem of the existence of solutions of the system (1) and (2) is considered under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

9. In the ninth part of the paper, the problem of the existence of solutions of the system (1) and (2) is considered under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

10. In the tenth part of the paper, the problem of the existence of solutions of the system (1) and (2) is considered under the assumption that the functions $f_i(x)$ and $g_j(x)$ are continuous and satisfy certain conditions. It is shown that under these conditions the system has a unique solution in the class of continuous functions.

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1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

2. The second part of the report is a detailed description of the study area. It includes information about the location of the study area, the population of the study area, and the characteristics of the study area. It also discusses the data sources used in the study.

3. The third part of the report is a detailed description of the study results. It includes information about the findings of the study, the conclusions drawn from the findings, and the implications of the findings. It also discusses the limitations of the study and the need for further research.

4. The fourth part of the report is a conclusion and recommendations section. It summarizes the main findings of the study and provides recommendations for future research and policy-making.

1. Introduction

The purpose of this study is to investigate the impact of the proposed project on the local community. The study will focus on the social, economic, and environmental impacts of the project. The study will also investigate the potential for the project to create jobs and improve the quality of life in the local community.

The study will be conducted using a combination of qualitative and quantitative methods. Qualitative methods will be used to gather information about the local community's views on the project. Quantitative methods will be used to measure the project's impact on the local community.

The study will be conducted in the following areas:

- 1. Social impacts: The study will investigate the project's impact on the local community's social structure, including the impact on the local community's social cohesion and the impact on the local community's social services.
- 2. Economic impacts: The study will investigate the project's impact on the local community's economy, including the impact on the local community's employment and the impact on the local community's income levels.
- 3. Environmental impacts: The study will investigate the project's impact on the local community's environment, including the impact on the local community's natural resources and the impact on the local community's air and water quality.

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