SOCIO-ECONOMIC STUDY OF SIX ALL-BLACK

TOWNS IN OKLAHOMA

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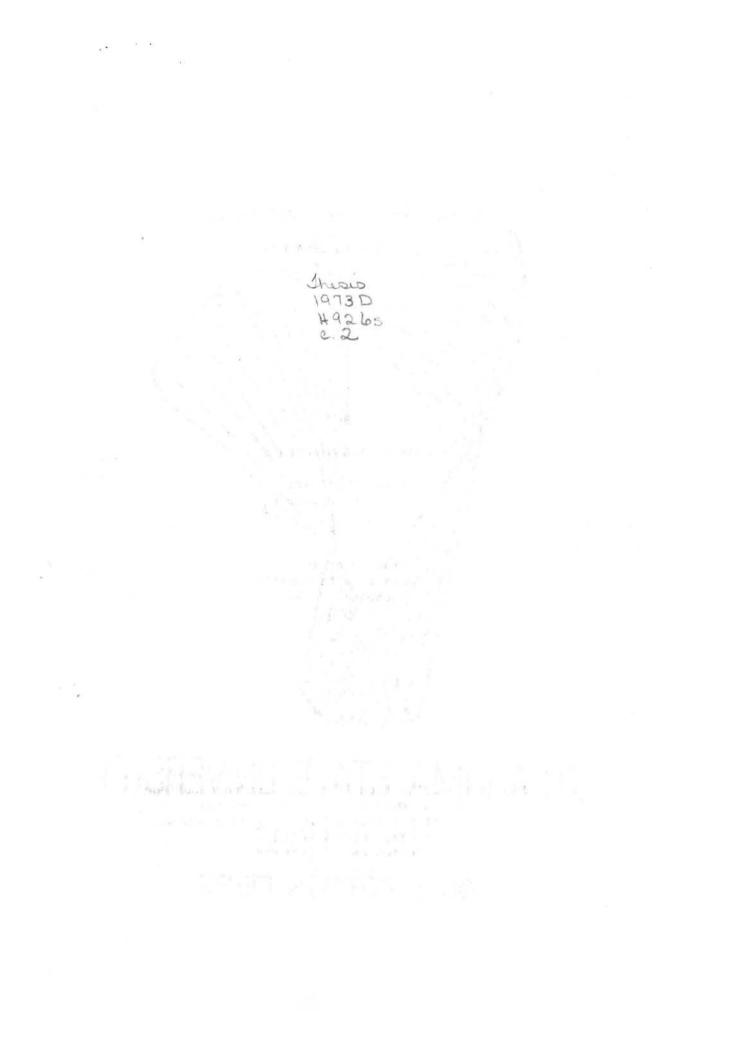
Bу

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PREFACE

During the past decade many volumes have been written about black people, and they have been the object of a large amount of research. The major part of the research has focus upon urban black subcommunities in terms of their social structure and life styles of the individuals therein.

This study is primarily concerned with the assessment of socioeconomic factors which affect all-black communities. Some of the objectives of this study include providing these communities with data which can be an asset in their further development, as well as determining ways in which Langston University can better serve all-black communities in Oklahoma. It is the hope of the researcher that the findings in this study can be generalized to rural non-farming and nonindustrial communities which are not included in this study.

The author wishes to express his appreciation to Dr. Donal Allen for his guidance during the course of this study and in the preparation of this thesis. Appreciation is also expressed to the other committee members, Dr. Ivan Chapman, Dr. Richard Dodder, and Dr. Judith Sheldon for their suggestions in the preparation of the final manuscript.

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CHAPTER I

INTRODUCTION

This is a socio-economic study of six all-black communities in Oklahoma. The data were collected during the spring and summer of 1972 by interviewing one adult member of each family.

The majority of community studies focus upon predominantly white communities or where black sub-communities exist. These communities vary in size, racial composition, and social structure.

The following are some examples: In their classical study of <u>Middletown</u>, Robert S. Lynd and Helen Merrell Lynd, by their own admission, were primarily concerned not only with the white population, but with the native-born whites who comprise ninety-two per cent of the population. The blacks and foreign-born formed the remaining eight per cent. W. Lloyd Warner in <u>Yankee City</u>, presented a detailed analysis of social classes as well as the role individuals played according to their social class. According to Warner's class system, blacks are placed at the lower rungs of society. In other words, blacks are lower in status than whites, therefore, their role corresponds to their status. In his study, <u>Levittowners</u>, Herbert J. Gans discusses the development of the community which is a suburb of Philadelphia and Camden, New Jersey. Part of his presentation deals with racial desegregation issues, or pertains to blacks. The main issue is centered around housing desegregation. Levitt, the developer

of the community, had declared publicly that he would not sell to blacks. Seeley, Sims, and Loosley in their book <u>Crestwood Heights</u>, tells about the cultural aspects of suburban life in Toronto. The study includes the life style of the inhabitants, as well as their value system. Apparently, there were not any black residents in Crestwood Heights during the time the study was made. Cayton and Drake made a study of the black sub-community of Chicago. In their volumes which are called <u>The Black Metropolis</u>, they promote an unusual portrayal of life in the southside of Chicago. The description of the lives of the dwellers include the degree of dependency, and the amount of control they have upon their lives. More specifically, even illegal activities, such as the "numbers racket," is controlled by forces outside the black sub-community.

Unlike the above studies, this study, as previously mentioned, concerns six all-black communities. These communities are Langston, Boley, Taft, Tatum, Lima, and Vernon. They are not sub-communities, but total communities in terms of having their own independent form of government or townships.

Langston has a population of approximately 450 persons. It is located eleven miles northeast of Guthrie and two miles west of Coyle in Logan County. The town is the home of Langston University, which adjoins the college on the southeast side of the campus and is separated by State Highway #33. The terrain is part of the Red Plains, which is characterized by being almost level to rolling hills. The Red Plains extend from the central part of Kansas through central and western Oklahoma to northwest Texas. The Cimmarron River is also in the

vicinity of Langston. It winds approximately one-fourth of a mile east of Coyle.

Boley, which is the largest of the communities included in this study, has a population of 650 persons. It is not only larger in terms of its population, but also its land area is greater than the other communities. Boley is located seven miles east of Prague in Ofuskee County. Highway # 62 runs along the southern edge of the township, which separates the town from its major business enterprises. Those are a motel, restaurant, service station, and cleaners complex and also a manufacturer of shipping crates; a furniture company is part of the motel complex.

Taft ranks third in population size with approximately 350 persons. It is located eleven miles west of Muskogee in Muskogee County, about four miles north of Highway # 16. One of two campuses is a state institution for mentally retarded and orphaned children, which partially divides the community in terms of its geography. The second establishment is also a state institution. Both institutions are located at Taft, and their significance will be discussed in Chapter III of this study. The terrain in the area varies from flat to hilly, the soil varies from clay to sandy. The community of Taft is more compact than any of the others in this study.

The population of Tatum is approximately 130 persons. It is located about thirty miles east of Duncan in the southcentral part of Oklahoma in Carter County. The community is further south than any of the other communities in this study and it is also less compact. Highway # 7 divides the community geographically. The residential areas are located on either side of the highway. The land surface is

mostly flat and the soil is dark in color.

The population of Lima is approximately 90 persons. It is located seven miles from Seminole on Highway # 270. There are more visible signs of structural decay in Lima than any of the other communities which are a part of this study. The surface of the land area is quite uneven in Lima.

Vernon, which has a population of approximately 50 persons, is the smallest in terms of its population and land area. It is also the most isolated. Vernon is the only community in this study that does not have a hard surface road which passes through or near the community. It is located eleven miles southeast of Dustin in Hughes County. The Canadian River flows about eight miles south of Vernon. The terrain is primarily flat and the soil is mostly red clay.

The all-black communities had their beginning during the latter part of the nineteenth century. Blacks migrated from the South in order to escape the prejudice and discrimination which they encountered. As they migrated to what was then Indian Territory, they established all-black settlements which thereby, developed into towns.

They settled mostly in the eastern part of the state. There was a movement by E. P. McCade and others to establish Indian Territory into an all-black state. Their movement no doubt prompted a countermovement on the part of whites for Indian Territory to become a state.

As indicated above, the population of the all-black community is small in number; at one time, this was not the case. Boley once had a population in excess of four thousand, and Langston had a population which was more than three thousand. During their inception, and for a long period of time these communities were primarily agriculture

oriented. They were rural farming communities, and records reveal they were quite viable. Some of the towns had their own newspaper. The paper which was published at Langston, for example, was called the Langston Herald. Boley, until recent years, had a bank. Where empty or decaying buildings now exist, there were once thriving business enterprises. Closed school buildings and churches serve as reminders of an apparent, faded era.

Currently, they are rural non-farming communities. Unoccupied buildings, empty houses, and deserted farmland, indicate the decline of the population in these communities. In other words, all-black communities have similar fate that small white communities have encountered. That is, the migration from rural to urban centers has had a profound impact upon small communities. The change from a rural oriented society to an industrialized one, combined with the mechanization on the farm, have not only influenced or altered the pattern of living of inhabitants in the more urbanized area, but also those individuals who live in small towns or rural areas.

As a result of some of the stated factors, the all-black communities which are rural, as previously stated, are not only nonfarming, but they are also non-industrial. The communities serve primarily as a place of residence and not as a place to earn a living. More specifically, these communities have been transformed from farming, self-sufficient small towns to communities which are no longer self-sufficient. In each community studied, the majority of individuals who were employed worked outside of the community. Some of the workers commuted a distance of sixty to seventy miles away.

The transformation of the all-black community from viable,

self-sufficient, to their present state, is an indication of the influence technological change has had upon community life. Improved transportation and communication facilities have closely linked or integrated once isolated communities with the larger elements of society. The automobile, for example, has not only enabled individuals to commute, but it has also changed their social pattern of living. In other words, instead of being restricted to a given community in terms of social interaction, the people-friendship groups extend, in numerous instances, outside the community. The same is applicable to entertainment and recreational pursuits.

The theory of this study is centered around the impact social change has had upon the degree of self-sufficiency of the all-black community. To a large degree, social change has been illustrated above. It is often an inevitable process, especially in a highly industrial society such as in the United States. It has altered the structure of numerous communities and has influenced the attitudes of individuals. The all-black communities are examples of those which have been altered by social change. The traditional structure of close knit community ties and mutual aid to insure survival have changed considerably. The reason for these changes can be attributed mostly to the changes in the social structure of the communities. That is, while the communities have become less self-sufficient, the individuals have acquired more autonomy in terms of their relationships with other individuals within the communities, compared to an earlier period. The term self-sufficient refers to the degree in which the communities provide their own economic resources (including employment), and services (businesses, recreation, education,

utilities and social outlets). In other words, the all-black communities are largely characterized by secondary group relationships rather than primary group relationships. For example, as previously mentioned, most of the inhabitants of these communities source of income is derived from outside of the community. They have insurance in numerous instances, and varying degrees of police protection. Therefore, their relationships are not by necessity fixed upon the need for survival, or dependency in terms of the basic necessities of life.

Statement of Hypothesis and Methodology

The overall objective of this study is to determine and analyze the socio-economic "problems" in six all-black towns in Oklahoma. The names of these towns were stated earlier in this chapter. Specifically, the purpose of this study includes the following goals:

- 1. To identify and evaluate socio-economic factors which determine social class (i.e., occupations, income, education) and local supply and demand for labor.
- 2. To determine the role of social organization in community development.
- 3. To determine the degree to which the community is self-sufficient.
- 4. To determine the potential for development of communities (i.e., job opportunities, education, housing).

Previous research of all-black communities has not centered around most of the factors included in this study. It has either been historical in nature or superficial in depth. This research seeks to include a series of variables in one comprehensive unit which will yield a great deal of knowledge about the communities studied. By doing so, it is quite possible for this study to provide a basis, not only for further

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research, but approaches for solutions of existing problems. More specifically, there are funds provided by governmental agencies to towns for the improvement or construction of certain facilities. These facilities include libraries, fire departments, community centers, city halls, street improvements, police stations, and small businesses. In order to secure funds for the above facilities, detailed information which this study will provide is required by the assisting agency or agencies. It is the intention of the researcher to make his findings available to each community which is included in this study. Unlike a large amount of research which merely provides a foundation for further study, this study is designed to become action-oriented if the inhabitants of the communities so desire. For example, an important aspect of this study reveals the attitude of the individuals including study toward changes. The type of changes the individuals desire are not only mentioned in the study, but also who the participants feel are most capable of implementing these changes. In other words, these findings reveal the preferences of the people and not merely those of a chosen few who presumably represent the opinion of the masses. To further illustrate the purpose of this study, the population of some of the communities in this study is still declining. The inhabitants are attempting to find ways not only to retain the present populations, but to increase them as well. The existence of some of the smaller all-black communities is threatened by the loss of population, especially the youth. By providing the communities with certain data such as the amount of available man-power and mean educational level, etc., may enable them to attract small enterprises since one of their major problems is unemployment.

The methodology in this study includes the following. The data for the study of six all-black towns in Oklahoma came from 368 families. The sample of each community represents more than ninety per cent of each population. One adult from each family was interviewed. There were 135 respondents from Langston, 97 respondents from Boley, 69 respondents from Taft, 32 respondents from Tatum, 20 respondents from Lima, and 15 respondents from Vernon. A questionnaire which included additions was used in this study. A copy of this instrument is contained in Appendix A.

Numerous variables are involved in determining and anlyzing the socio-economic problems in all-black towns in Oklahoma. These variables are numerous because socio-economics is a broad concept. That y is, the assessment of the problems in all-black communities include some factors which vary a great deal in content. As an illustration, variables, such as "good features" of the community may not appear to be directly related to the study, but these variables are an informative aspect of this research. That is, they enable the researcher χ to acquire knowledge of their communities which might have otherwise been omitted. In addition, the respondents were given an opportunity to express their opinion regarding their community. Data for the variables were acquired from replies as to how the respondent answered such questions as "What are some of the things that have been done in this town to improve it within the past five years?" For each question or statement, in most instances, the respondents were encouraged to cite two or more factors. See Appendix A.

the following hypothesis is designed to determine the importance of these variables that are considered pertinent to this study:

1. All-black towns are not self sufficient

- a. In educational services.
- b. In religious services.
- c. In social services.
- d. Economically (business, finance).
- 2. There is unemployment and under-employment.
- 3. There is not sufficient supply of trained labor.

That portion of the data which could be quantified was coded and placed on computer cards for computations. In order to identify * factors that are pertinent to the study of all-black communities, the research instrument was a specifically designed questionnaire, as mentioned above. Inter-correlation analysis and analysis of variance were used to analyze the data in this study. If the difference between variable means in the samples is greater than that expected by chance at or below the .05 level of probability, the difference is considered significant.

The questionnaire was designed to determine the following factors: (1) personal data such as age, marital status, place of employment, length of time in the community, occupation, and income; (2) attitudes toward the community; (3) level of participation in the community; (4) services available in the community; (5) economic potentials; (6) business outlets; (7) social and recreational outlets; (8) role of social organizations; (9) courses and training desired to be offered in the community; (10) problems of the community; (11) changes desired. Data gathering was accomplished by personally contacting the mayors and other officials or assumed opinion leaders in the various communities. These individuals were informed about the nature of the study and its relevance to the possible improvement of the community. The writer explained the relevance of the questionnaire to the above individuals.

Prior to interviewing the respondents, they were asked to sign a prepared form which gave their written consent for the interview to occur. This procedure was implemented in accordance with the Department of Health, Education and Welfare guidelines (Letter, July 6, 1972). In part, the guidelines stipulate that the right of the individual will not be perpetrated under the guise of research. By informing each respondent of the nature and purpose of the study and obtaining his or her written consent, protects both the respondent and the researcher. In addition, most of the respondents willingly signed the form which gave their permission for the interview to be made. Only in a minority of instances did some individuals express reluctance in regard to the signing of the consent form.

The addition to the questionnaire which has previously been mentioned, was designed primarily for and administered to business and political leaders. The items contained in the addition are centered around those activities and functions which these individuals are in a better position to evaluate or impart knowledge than the rank and file members of the community. In other words, the business and \times political leaders usually have knowledge of and access to pertinent factors regarding the community.

Some of the items in the addition to the questionnaire included:

(1) economic assets of the community; (2) the type of services
available in the community; (3) major problems involved in developing
the community; (4) amount of land available for more housing and
businesses; (5) percentage of work force employed outside the community;
(6) employment rate in the community, etc.

As previously indicated, very few individuals refused to participate in this study. Those who did refuse, as well as some of those individuals who were reluctant to participate initially, indicated that they had been interviewed previously by someone else. On the other hand, some of the individuals expressed a fear that the information may be used against them rather than in their behalf.

CHAPTER II

REVIEW OF THE LITERATURE

Community

Because of the large amount of research which has been directed toward the study of the community, it has been necessary to survey some of those studies which deal with small communities or predominantly black sub-communities.

Robert S. Lynd and Helen Merrell Lynd (1929) confined their study to the white population and more specifically, the native whites, who comprise ninety-two per cent of the total population. The historical setting of the Lynd's began in 1890 and it included pioneer life, the gas boom as well as the industrial revolution of Middletown. Middletown is described as a community of conservatives in which individuals place a great deal of emphasis upon security. According to the Lynds, the people usually distrust politicians and one's political party is similar to his religion, that is, they are both determined by his family. Another interesting aspect of Middletown is its educational system. The Lynd's observations include cultural background as a dominant factor. That is, the teachers are selected on the basis imesof their state residence. In other words, one must be a resident of Xthe state in order to teach and preference was given to the teacher who graduated from high schools in the state.

W. Lloyd Warner (1963) in describing the economic life of the community, states that there was not an ethnic group which had a large number of workers in any given industry where the natives did except the Irish. He also observed that no ethnic group was significantly low in terms of its representation in any area where the whites were significantly low. Warner further noted there is a high correlation between social class and occupation in Yankee City. He divided the community into six social classes according to occupation. In addition, > Warner described the significance and function of the association in Yankee City.

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Robert S. Lynd and Helen Merrell Lynd (1937) revisited Middletown. In their first study which took place during the 1920's, Middletown was viewed largely as a culture of rooted customs and "yielding unevenly to the pressure of change in its technologies and beliefs." The second study which was made during the 1930's, reveals outside influence played an important role in the changing that occurred in Middletown. The influence came as a surprise and disrupted the function of the institution. According to the Lynds, the outside influence led to institutional breakdown. In terms of Middletown's industry, it is centered around producer and consumer goods. These include metal household furniture, glass jars, automobiles, machine parts and wire (Lynd, 1937). In addition, differences in political λ ideologies, which was the hallmark of the 1930's in Europe, were also present in Middletown. Discussions of whether communism was superior to democracy frequently occurred. There was also a question which was centered around the role of the "ruling class" in Middletown, as an illustration: "We are disgusted because the ruling class doesn't

rule--(the class that will rule)--need not be the rapidly diminishing wealthy class, of course. It may be only class that possesses vision, sanity, and a sincere wish for the public welfare."

W. Lloyd Warner (1949) described the American social system as a system which organizes and controls the lives of all of the people. His description is centered around two basic conflicting principles. The first principle states that all men are equal before God and emphasizes the spirit of the ritual documents of the nation; such as the Declaration of Independence. The second principle tends to contradict the first, usually in acts rather than in words; such actions demonstrate that men are unequal in their worth, and that few are superior to the many, and that a large number of lower status individuals are inferior to all others. According to Warner, the people of Jonesville are very conscious of social status. In other words, all $_{\lambda}$ of the people are rated according to their social standing in the community. The following illustrates the latter statement: "Even the casual observer of the present city of Jonesville notices that the town's living space is sliced into three large layers. In the north, the railway cuts through, dividing the top of the middle, and in the south, the water of the Canal separates the thick middle from the thin, lower layer. In Jonesville, everyone knows if you live north of the tracks or south of the Canal, you are on the wrong side of the town" (Warner, 1949).

August B. Hollingshead (1961) describes the community in terms of the flatness of the landscape and the two rivers that flow across the plains. Also, another important aspect of the town's original location is the intersection of a North and South road with the river near

Canal Street. In terms of its economy, Elmtown is supported by a combination of agriculture and diversified industries, which range from coal mining to the manufacture of fine leather gloves. It is the only community that has a population of more than 2,500 in the county. In addition, Elmtown is typically midwestern in its orientation. That is, × a great deal of emphasis is placed upon religion, education, and self-sufficiency economically. It also serves as the social center of surrounding communities (Hollingshead, 1961).

Arthur J. Vidich and Joseph Bensman in their study (1958) focuses first upon the social, economic, and historical setting of the community. They also describe the community as one a passing motorist would hardly notice except perhaps as a possible speed trap. The location of the community is in upper New York state and its name is Springdale. There is a great deal of inter-city traffic that passes through the community every night carrying such goods as new cars, milk, gasoline, and farm produce from points north and west to the eastern seaboard. According to Vidich and Bensman, in order for an individual to see the main part of Springdale, he must leave the main highway. Then one finds a community which was founded in 1837, by ex-soldiers of the Indian War. The village consists of two settlements that are divided by a creek and a distinction is made between the two. For example, there are two fire companies, two shopping centers, and "social feuding." In addition, farming has declined \star and has been replaced by industry. There is a conflict that is waged between the farmer and the businessman.

Herman R. Lantz, in his book (1958) states the community of Coal Town has undergone rapid change. This change includes expansion,

prosperity, and decline. The community has also experienced social and economic change which tends to be typical of a coal mining community. In regards to the community historical background, it became a coal camp in 1900. As the coal camp developed into a community, conflict also developed between the Union and the opponents of the Union. According to Lantz, black workers were evidently brought in to fight the Union dominance of the coal mining production. Immigrant groups were also attracted to Coal Town. The groups included Central and Southern Europeans: Polish, French, Russian, Austrians, Greeks, Italians, Hungarians, and Syrians. These groups of immigrants had difficulty assimilating. On the other hand, English speaking peoples from Scotland, Wales, Ireland and England assimilated relatively easy (Lantz, 1958). Also, according to Lantz, there were negative attitudes on the part of the natives toward the immigrants. These attitudes included: the immigrants were hoggish and did not know how to stop working.

Herman Clarence Nixon (1941), in his study describes a rural southern community. He tells about the people of the community whom he referred to as "hill folk." The location of Possum Trot is in the "up county" of the South. More specifically, it is a small neighborhood that is located in the lower part of the Appalachian Mountains, near Merrellton, South Carolina. According to Nixon on the climate temperature, people neither freeze to death in the winter nor die of sunstroke during the summer; though death does occassionally occur due to rattlesnake bites. Change takes place slowly in Possum Trot and the community can be described as a "sleepy" one.

Albert Blumenthal in his study (1932), refers to his study as an attempt to present a typical manifestation of small town stuff as well as a picture of an alert American small town. The name of the town is Mineville and the population is about 1,400. It is located in the Rocky Mountains. Mineville began as a pioneer town in 1865, and the people came searching for gold according to Blumenthal. In regard to the physical aspect of Mineville, utility is more important than beauty. Also, St. Louis is considered the mother-city of Mineville because it is the community leader's place of origin. In addition, 🗡 the leadership role in the community is confined to a small group of inhabitants. People are considered in terms of the family to which they belong. The majority of the families live in terms of the family to which they belong. The majority of the families live in separate houses and each house is a physical symbol for a family. That is, \star the "Brown's house," the "Montgomery house," and the "Coe house," have existed for several generations, and each family is thought of in terms of the family house (Blumenthal, 1932).

Robert J. Havighurst and H. Gertham Morgan (1951) attempted to determine how people adapt to rapid social change. The community was studied in Seneca, Illinois. In 1942, Seneca had a population of 1,235 and two years later, the population had increased to 6,600, according to the author of the study. The rapid growth of the population is attributed to the location of the shipyard which is on the bank of the Illinois River close to the village. During the boom, public bond issues were quickly passed, which indicated the people were in a receptive mood for improvements; as these improvements pertained to economic benefits for the community. Prior to 1942, Seneca was

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described as a quiet little town with a history that dates to 1830, and whose settlers came from Ohio and Pennsylvania. According to Havighurst and Morgan, the major argument during the rapid increase in the population of Seneca was finding housing for the people to live. The Federal Public Housing Authority was requested to supply the need. In regard to the relationship between the old and new residents, they were kept to a minimum, because the new arrivals thought of themselves as "merely here today and gone tomorrow" (Havighurst, 1951). Economically, the wages were doubled, people spent money freely and business boomed. In terms of religion, on the part of the "newcomer," many of them changed their church preference.

Richard L. Simpson (1965) identifies approaches to the study of the community. He states in a sociological study of communities, it is possible to identify three principal approaches. The approaches are: first, the community life; second, life as affected by the community, and third, the sociology of the community. In addition, according to \nearrow Simpson, one can focus upon the community as a whole such as the study entitled <u>Street Corner Society</u>, as well as those factors which distinguish the community as a sociological category from other social structures.

Christen T. Johassen and Sherwood H. Peres (1960 cite some of the factors involved in attempting to formulate a general theory of community. According to the author, those scientists who seek a general theory of community are handicapped by the lack of comparability of communities studies and by the great complexity of their subject matter. To solve their problem, the authors in their study suggests the utilization of a single mathematical model to

quanitative variables which operationally defines data. Also, their approach seeks to reduce complexity by focusing upon a limited number of factors or basic units in terms of which variation between system can be explained (Johassen, 1960). In addition, the research of \times Johassen and Peres sought to simplify the complex structure of community inter-relationships and variables which could explain and account for differences between community systems.

Herbert J. Gans (1962) makes a participant-observer study of the individuals who lived in the West End of Boston. "To the average Bostonian, the West End was one of the three slum areas that surround the city's central business district, little different in appearance and name from the North and South End" (Gans, 1962). The latter statement summarizes the lack of empathy on the part of the Bostonian toward the slum dwellers according to Gans. The study is primarily concerned with second-generation Italians. Gans' description of the physical oppression of the West End is quite revealing. He states that from the outside the area had the general characteristics of most slums, but there was marked contrast between the outward appearance of the buildings and the inside. The apartments were nicely furnished, the walls were neat and the occupants took a great deal of pride in the upkeep of their dwelling places. In other words, according to \times the author, West End was not a slum. To support his position, Gans notes that other occupants who were not Italian and who had a middle class income lived in the community because of its convenient location and mostly because the rent was moderate in cost. In addition, the imesWest End was functional socially for the Italian Americans. It insured the continual close family ties and close relationships between

neighbors of similar background. Most of their activities were centered around the West End, usually belonging to organizations which offered opportunities for peer group functions.

Floyd Hunter (1963) describes the power structure of Regional City. The city's location is in a major factor for its transportation system as well as its business growth, which extends beyond its region. The study is primarily concerned with forty men, and the majority of them are business men. In other words, these forty men hold the reins \times of the power structure in Regional City. That is, they tend to de- \times termine the economic growth of the city, thereby making decisions which effect the lives of many. The power of these forty men is not limited to economics, but to a large extent, they influence the political and social processes of the city. The power structure of the community consists of four basic elements: personnel, membership, roles, and norms. These involve the following respectively: test of admission and membership; specific roles of the members; and ways to control their behavior. In terms of the black population, it is mostly segregated and is referred to as a sub-community. Also, its pattern is very similar to the larger community.

J. R. Seeley, R. A. Sims, and S. W. Loosely (1963) describes a Canadian community which is located in Central Canada. The author focuses upon the class structure of the community. The detail of its location is as follows: "The metropolis of which Crestwood Heights forms an integral part, is situated on a rather flat region which recedes in a gentle slope from its water." According to the author, prosperity is an essential component of status in Crestwood Heights. A house is a means by which individuals engage in competition.

Upward social mobility is extremely important to the people who live in the community. When they change jobs or residential locations, prestige is very important. In other words, a change in jobs must not ^X only mean an increase in salary, but also an increase in one's social standing. Also, in regard to competition, there is not as much competition as it is cooperation within a competitive setting (Sims, 1963). A final note should include the mentioning of the family in Crestwood Heights. It consists of a mother, father, and in most instances, not more than two children. In other words, there is not an extended family system.

Howard H. Bahr and Jack P. Gibbs (1967) presents a theory on the interrelations among four forms of social differentiation. The theory of social differentiation purports there is a relationship between residential, education, occupation and income. In other words, there X is usually a relatively high correlation between these variables. In formulating their theory, Bahr and Gibbs used data from the 1960 United States Census. A random sample was taken from thirty-three Stanford Metropolitan Statistical Areas. According to the authors, their findings generally support the theory in regards to interrelations among educational, occupational, and income differentiation. More specifically, the four forms of social differentiation are: residential locations, education, occupation, and income. The findings of Bahr and Gibbs indicate that residential differentiation may not be as "basic" to other forms of social differentiation as is usually believed.

Herbert J. Gans! (1969) presentation is centered around a relatively new community. The following illustrates this point: "In

Maurice S. Stein (1960) is concerned about formulating American communities. He states one of the difficulties one encounters in community theory is finding "representative communities which can be used for generalizations about all of the communities." Stein, further argues, an individual would be doomed to failure. This would be a weakness of the Park, Lynd, and Warner studies, in that they made assumptions about their research which may not be applicable to other communities. For example, Park was explicit about attempting to find generalizations about urbanization; Warner was aware of the general implications of his research (although he did not state it as a theory of democracy), and the Lynds were primarily concerned with the describing of important industrialization had upon Middletown. In addition, the problem of generalizing from the community study has been a difficult task for sociologists. The latter is apparently due largely to the lack of interest in the area of community during the past two decades (Stein, 1960).

Nelson W. Polsly (1965) reveals the social scientists' point of view, as it relates to power. He states that its most general meaning is conceived by social science as influence and control being synonyms for power. That is, the actor possesses the capacity to affect the \times behavior of another actor, which changes the probable pattern of specified future events. In addition, according to Polsly, it is \times possible to distinguish between three kinds of data with respect to the decision making process which often serves as indices of the actors. The three kinds of data include: who participates in the decision making, who gains and who loses from alternative possible outcomes, and who prevails in decision-making (Polsly, 1965).

Dennis Poplin (1972) deals with the inconsistency and ambiguity which plague sociology in regard to its basic terminology. It is difficult to be scientifically precise when words have various shades of meaning. Poplin states that the term community could definitely be placed into the above category. For example, the following are often referred to as communities: prisons, colleges, the military, and hospitals are only a few. According to Poplin, the word community refers to those units and territorial organizations which, depending upon their size, may be called villages, hamlets, towns, cities, or metropolitan areas. Also, major communities types are rural and urban communities (Poplin, 1972).

Elliot Liebow (1967) describes the role of the black lower class male in a sub-community setting. In focusing upon the black lower class male, Liebow makes some revealing observations. The following is a presentation of some of them. To a large degree, the black family has been viewed by the dominant society as a model of the

dependent, lower class urban family, and a primary target of policy makers and programmers in the war against poverty. Much of the white middle class knowledge of the black family is based upon poverty and has been biased by an emphasis upon women and children, and also neglect of adult males. This neglect on the part of the black male is said to cause delinquency and dependency. The unemployment rate of lower class black males is several times the national average. Even when they are offered jobs in numerous instances, they refused to work. There are several reasons for their refusal, but the primary reason is the low wages the black person receives for his labor. To white middle class individuals, black males appear to be unnoticed and to lack self-confidence as well as being unwilling to accept responsibility. Also, one of the primary characteristics of the black lower class family is the absent father. This statement does not suggest that the majority of black families have absent fathers. According to the 1970 census report, fifty-eight per cent of black families have males who are head of the household compared with seventy-eight per cent of white families. The relationship between father and children vary a great deal. In some cases, the father might be completely absent and unknown to the children. In other instances, he might have a close relationship for a period of time and help support the children as much as he can. One of the unusual aspects of the father-child relationship, as viewed by the white middle class, is the feeling of pride a black father has toward his illegitimate child. According to Liebow, the males who do not live with their children tend to express more affection for them than those males who do. Also, a father who lives with his children tends to be

under more pressure to provide adequately for his children as he is constantly aware of the possibility of failure.

William F. Whyte (1955) deals with the concept of social disorganization. The slum as a jungle and the slum as a ghetto, both dominate the sociological and literal approaches to the black subcommunity, according to Whyte. In other words, the majority of the interpretation of slum life tends to emphasize its disorganized aspects. That is, the difference between disorganization and organization. Disorganization is not often dealt with by sociologists. They tend to emphasize disorganization and ignore to a large degree organized disorganization. It is possible that a given pattern might be considered disorganizing from a perspective of the whole city, while still, it is an integral part of the social organization of a particular sub-community. In other words, the same item can be × functional from one unit and dysfunctional from another.

Andrew Billingsley (1968) presents a historical background of the black family, as well as a description of the structure of the black family. In their study of major ethnic groups in New York City, Blazer and Moynihan made the following conclusions: "The Negro is only an American, and nothing else. He has not values and culture to guard and protect." According to Billingsley, the statement could not possibly be correct, but it presents the prevailing view among liberal intellectuals who study the"black experience" from the outside. There are three essential elements in terms of historical background of blacks which make them distinct historically. These are: black people came to this country from Africa and not from Europe; they came as slaves, or in slavery, and were consequently uprooted

from their cultural and family ties; they have been subjected to a systematic exclusion from an influence in the major institutions of their society even to the present. Because of these factors, "the Jews, Irish, Italians, Poles, and Scandinavians who see no difference between their former plight and of blacks today are either grossly uninformed or are enjoying an unforgivable false pride." In terms of the historical background of the black family, several characteristics of African family life demonstrate a great deal of viability. Family life was not primarily or essentially the relationship between two people. That is, the African family life was based upon X an extended family system. A series of individuals usually played an important role in the family life of a married couple. It united two families and a network of extended kinship groups who had an influence upon the family and a responsibility for its welfare. Marriage and family life prior to the coming of the Europeans to Africa, involved centuries of traditions. The family was an economic, religious, and a political unit which involved an elaborate kinship system (Billingsley, 1968).

C. A. Kamii and N. L. Radin (1967) in their study investigates class differences in the socialization practices of black mothers in regards to child-reading goals. The method of research employed was direct observation of mother-child relationships in the home. The comparative study includes mothers from the lower and middle classes. Kamii and Radin concluded on the basis of their observations, the goals of the lower class black mother does not differ fundamentally from the goals of the middle class black mother, but there is a "considerable" difference in the manner in which they socialize their

children. The general hypothesis of the study was lower and middle class mothers are basically similar in their child-rearing goals but, only lower class mothers interact with children in ways that perpetuate the need for external control.

Harold H. Phautz (1962) compares a "Regional City" with "Pacific City" and also with Providence, Rhode Island. As the title indicates, the study is primarily concerned with the black sub-community. More specifically, it adds empirical data on Providence which is a moderate sized New England community that has a long history of race restrictions, which are part of the city's tradition. According to Phautz, there is a similarity between the status of blacks in Providence and southern communities. That is, there is a "clear-cut" sub- \times community power structure. In other words, in Providence and southern \times communities, separate power structures are indicators of the separation between the community and the sub-community.

Robert Staples (1971) summarizes and analyzes the past ten years. Staples views the theories of the black family from two basic perspectives. The first is from a "micro-sociological" approach in which the theories of the black family life is analyzed for their theoretical and methodological validity. The record is from a "micro-sociological" point of view in which research findings of black family life is viewed. The micro-sociological theories includes its structure and the component parts of the structure. The micro approach is concerned with the testing of hypothesis in specific areas of the family according to Staples (1971). That is, it does not focus upon the overall $\stackrel{\times}{}$ function of the family but rather certain aspects of it. As an illustration, an hypothesis of child rearing may be tested.

Walter G. Daniel (1963) presents the economic inequalities of blacks in the United States. The Emancipation Proclamation freed the slaves, it did not provide for the blacks to achieve vertical mobility within the economic system, according to Daniel. During the nineteenth and earlier part of the twentieth centuries, there was some degree of horizontal mobility, which enabled the black to "move about in the agricultural economy," Daniel continues. Also, the economic inequalities between the black and white populations certainly exist and have been documented. One of the sources of evidence in terms of the comparison between the income of whites and the income of blacks is the census data.

Nay Marshall (1967) describes the plight of the black worker. For example, "The racial attitudes engendered in by the American slave system has had a deep and continuing impact on the labor race relations." In other words, the economic conditions and problems that × the black worker is experiencing are very apparently not contemporary in terms of their origins, but rather they are deeply rooted in the history of the United States. The emancipation and reconstruction did not improve the economic conditions to a major degree for blacks, in spite of high initial hopes and expectations according to Marshall. The freeing of approximately four million slaves had a great impact on the labor force in the South, and led to the problem of racial accommodations.

Hyman and Reed (1969) reviews the concept of the black matriarchy. According to the authors, there are two distinct notions which are included in the concept of black matriarchy. The first is a large but unspecified number of black households are headed by women. The

second is if a nuclear family exists, it is dominated by the wife." The American Negro family has been characterized as a matriarchy so often that the assertions are widely accepted as truth rather than as propositions still in need of empirical evidence and critical analysis. In other words, the term matriarchy not only relates to the physical absence of the father, but also the dominance of the mother. Studies of the black family clearly show fatherless homes occur more often among black families than white families. Their studies do not indicate the following: how common does the situation have to be, and the frequency of black matriarchy family compared to whites in regard to equivalent states. It should be noted according to United States census data (1970) that twenty-two per cent of white families are fatherless while forty-two per cent of black families are fatherless.

Fein (1965) describes the economic opportunity of blacks. According to Fein, he calculated when data permitted, the time lag statistics in terms of how many years earlier did white Americans with the full range of opportunity available to him to attain the particular level (such as education, health, income) that the black has so long been denied, has reached. He also posed the question of whether the gap between black and whites, in years, is greater or less than it was during the earlier periods. In a number of cases, the gap is becoming greater rather than smaller. Specifically, the gap between middle class whites and lower class blacks is becoming greater.

G. Kramer and J. Walter in "Politics in an All-Negro City," <u>Urban Affairs</u> (1968), views black involvement in politics. Studies of the political structure and process in the United States, in regard to blacks, whether in the North or in the South, indicates they are a

minority either numerically or socially, according to the authors of this article. In addition, blacks are either politically dominated by whites, or their style of politics is influenced by white domination. The latter does not apply in some instances; these instances include all-black towns which tend to be autonomous. For example, blacks elect their own local officials who are thereby responsible only to the black electorates.

Mozell C. Hill (1946) describes the western movement of blacks. The development of all-black communities in Oklahoma was an important part of the Great Western movement in the United States which occurred during the latter part of the nineteenth and early twentieth centuries, according to Hill. In order to comprehend thoroughly the establishment of all-Negro societies on the Oklahoma frontier, it becomes necessary to relate to their racial movement in which Negroes attempted to "escape" the social pressures of the dominant white culture, to the larger social movement toward the Great West." In other words, it was within their setting of social unrest that blacks and whites began to seek new homes and opportunities, according to Hill. Thus, this search led to the development of all-black towns of Oklahoma.

Drake and Cayton (1945) describes the plight of blacks in Chicago. Their description includes the social structure of the sub-community. They compare the income of blacks with the income of both native born and foreign born whites. They also focus upon the diversity of the black social classes and the avenues available to achieve upward social mobility. In addition, they give a vivid description of the pattern of living according to social class, which includes the family and community activities; also, the function of the basic institutions is

illustrated.

Gregory Armstrong (1971) in his presentation illustrates the effect the conditions in the South have had upon the blacks in the Northern areas. In other words, according to Armstrong, the Black ghetto with all their disadvantages, can largely be attributed to the discrimination and prejudice which took place in the South. That is, the "problems" which involve the blacks had their beginning, or was transferred to the North and from the South.

Sherman (1970) presents a historical perspective of the development of the black sub-communities. In this volume, Sherman traces the ways of black migration from the South and North beginning with the year 1916. He discusses the prevalence of racial discrimination which confronts the blacks. His discussion includes the areas of housing, employment, education, the church, and organized labor.

McCord, Howard, Friedberg, and Harwood (1969) writes about the effects the ghetto has had upon the black population in terms of the numerous restrictions they tell about poverty, and its de-humanization, as well as its being self-perpetuating. That is, poverty fosters poverty, and there tends to be a never ending cycle of hopeless state.

Palen and Flaming (1922) describe the social change and how it has influenced the urban areas. Since social change frequently occur unevenly, conflict may seem to be inevitable. That is, change often precipitates social unrest. In terms of urban regions, the latter can be seen in regard to class and race conflicts.

CHAPTER III

FINDINGS AND INTERPRETATIONS

Problems of the Communities

The universe of this study consists of six all-black towns which are located in Oklahoma. These towns are Langston, Boley, Taft, Tatum, Lima, and Vernon. The sample contains 368 respondents. Each respondent is an adult representative of the 368 families included in this study, or more than 90 per cent of the total number of families in the universe.

The main factors in this study are the degree of self-sufficiency of the communities and attitudes to the needs of the communities. This research project is primarily concerned with establishing the relationship between these factors. In order to accomplish this task, a questionnaire and additional items to depict business and political leaders' opinions are utilized.

As indicated in Table I, there is a positive relationship between family income and number of years in school. The correlation is significant at the .01 level ($^{r}.01 = .39$). The mean level of education is 10 years, which is also indicated in Table I. The mean years of education for the state of Oklahoma is only eight years. This finding apparently indicates the amount of emphasis which has been placed upon education by the residents of the all-black communities. It not only

indicates the degree of literacy of these communities, it also leads to an introduction of a series of other related factors.

TABLE I

INTERCORRELATION ANALYSIS OF VARIABLES

· · · · · · · · · · · · · · · · · · ·							
Means		1	2	3.	4	5	6
		4.13	48.52	10.61	3.31	28.91	10.55
Sigmas		1	2	3	4	5	6
		4.12	20,96	4.69	2.42	20.20	2.99
Family Income (000)	1	1.00	-0.11	0.39	0.16	-0.03	0.10
Years of Age	2	-0.11	1.00	-0.29	-0.28	0.48	-0.01
Years in School	3	0.39	-0.29	1.00	0.06	-0.16	0.17
People in House	4	0.16	-0.28	0.06	1.00	-0.18	0.06
Years in Town	5	-0.03	0.48	-0.16	-0.18	1.00	0.03
Names Mentioned	6	0.11	-0.01	0.17	0.06	0.03	1.00
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$$r_{.01} = .15$$

These factors include the percentage of workers who are employed outside of the community, unemployment, and under-employment as indicated by the low means income of the communities. As indicated by Table II, almost half or forty-six per cent of the respondents who are employed work outside of their respective communities. Many of these commute a distance as great as seventy miles, as indicated by the responses on the questionnaire. These findings suggest the need for more job opportunities in the communities, which are included in this study. They also vividly illustrate the degree of self-sufficiency of the all-black communities. The above findings also indicate the lack of adequate economic base which, apparently, has not been established in these communities. The findings further suggest that the majority of income of these individuals who live in the communities does not remain in the community for a very long period of time. Otherwise, there would be more businesses, services, etc.; consequently, more jobs.

TABLE II

EMPLOYMENT

· · · · · · · · · · · · · · · · · · ·	
	Per Cent
Within Community	54
Outside Community	46

While the mean educational level of the respondent in this study is above average and their mean income is below average, as previously stated, there are several possible explanations for these findings. The more obvious explanations include the large number of older citizens who inhabit these communities, as indicated by Table I. That is, the mean age of the respondents is 48 years, with a standard deviation of 20 years. This suggests some of the individuals are considerably older, as well as younger, but the number of retired members of these communities contribute to the old age aspect of the explanation. Based upon the findings in this study, at least 20 per cent of the communities' population is retired. Another group of the respondents who listed their occupation as housewives is beyond employment age, in many instances. This study is not only living on a fixed income, but is also beyond its most productive years in terms of employment.

Despite the above findings as they pertain to possible explanations for low income of the communities, the most meaningful explanation can apparently be attributed to unemployment and under-employment. This is best illustrated by Table I, which indicated that the mean income for the communities in this study is 4,130 dollars per year. The standard deviation is \$4,700; suggesting that some individuals earn considerably more, but it also indicates some individuals earn a great deal less. There is an apparent inconsistency in terms of employment opportunities for the residents of the all-black communities. As previously mentioned, the correlation between income and education is highly significant in a positive direction in these communities, but it does not indicate their potential for development. In other words, the income for the residents of the communities in this study is not commensurate with their educational level, Again, as previously mentioned, their education level is above average, but their income is a great deal below average.

When asked, "What are the major needs or problems in your community?", twenty-six per cent of the respondents cited jobs; either more jobs or higher paying jobs. As indicated in Table III, while jobs were listed fourth in terms of needs of the communities, this need was only separated by four percentage points from the one which was cited most frequently. These findings tend to support the second hypothesis, "There is unemployment and under-employment (in all-black towns)." In other words, a representative of almost one-fifth of the families in these towns view employment as a major problem.

TABLE III

MAJOR NEEDS OR PROBLEMS IN THE COMMUNITIES

	Per Cent
Recreation	22
Housing	20
Business	19
Employment	18
Streets	10
Water	5
Other Utilities	5

Table I shows there is a positive correlation between family income and the number of people who live in one house. This correlation is significant at the .01 level. The larger the number of people living in one household, the greater the amount of income the household tends to have. Also, as shown in Table I, the average number of people living in one house is slightly above three. In terms of the need for more housing, which some of the respondents expressed, and as indicated in Table III, if the income increases as the number of people living in the house increases, this apparently suggests that the communities could afford better housing if low income units were available. The desire for better housing was mentioned second in regard to the needs or problems of the communities. One-fifth or 20 per cent of the respondents cited housing as a major need or problem of the communities. There are only two percentage points separating the latter problem from the one most frequently mentioned.

One factor which apparently accounts for the correlation between income and the number of people living in one house is the age of the families. Larger families indicate younger people who are earning more money than older individuals who apparently live on a lower fixed income; compared to younger parents who earn more money.

Based on the researcher's visits to the communities, there is ample space for more housing to be constructed. According to the study made by Hill of black communities in Oklahoma, this was not always the case. During the early days of these communities, the houses were built very near each other. This nearness, according to Hill, was due largely to the lack of communications and also it provided mutual aid to the early dwellers. Since the early inhabitants were primarily

the second se

farmers according to Hill and others, their fields were no doubt located some distance from their houses. The early all-black communities probably resembled the eastern farming villages of Korea and other Asiatic countries.

Today, in the communities which this study is concerned with, it is not uncommon for only one house to be located in one or more acres of land. In Tatum, for example, the houses are quite widespread. There is more land available in this community in terms of houses than in the others. The space between the houses not only in Tatum, but in other communities, suggests that they were farming communities at one time, as previously mentioned. The space between the houses suggest, in some instances, that there has been a decline in gardening and a shift in the farming areas. In other words, there is adequate land available for small crops within these communities. Even today, it is not uncommon to see a few garden crops growing. According to Tolson and Hill's study of the black communities, the existence of these communities was based mainly upon agriculture until after World War II. That is, they changed from farming communities to non-farming rural communities.

In terms of the pattern of housing, Vernon and Tatum resemble a farming community more than the other communities in this study. That is, the pattern of housing indicates very little, if any, planning on the part of the builders. By contrast, Langston, Boley, and Taft's pattern of housing suggests planning has occurred in numerous instances.

According to Table I, there is a negative correlation between years of age and number of years in school. This correlation is significant at the .01 level. The older the individual, the lower their levels of education.

Since recreation was mentioned frequently as the major need or problem of the communities in this study, the above finding could be useful in planning programs for all citizens of the communities. The need for recreation was mentioned by 30 per cent of the respondents. In numerous instances, they specified recreation for older people and children. This finding strongly suggests that these two groups are the most neglected or affected by the lack of meaningful activities. Based upon observations by the researcher, all communities which are included in this study have very few recreational outlets. If there is a place which has been designated as a park, it has not been developed. There are not any community centers.

On the surface, an individual who has not visited these communities might be awed by recreation being mentioned most frequently as the major problem or need in the community. Although it is followed closely by what might appear to be more pressing problems such as housing, jobs, and businesses; recreation suggests a basic need of these communities, especially in view of their isolation. In a broader sense, recreation might be viewed as a partial solution to another problem which has been mentioned frequently by the residents of the communities in this study. This problem is population decline. That is, when most of the younger members graduate from high school or become college age, they leave the communities and do not return. One reason which has been cited to the researcher by some of the former residents of these communities is sheer boredom. There are not any activities for them to engage in, not even a movie theatre. As previously mentioned, the older residents and the children are the most affected by the lack of recreation. As suggested by the #espondents, this finding indicates that these groups are somewhat "trapped." The older individuals cannot leave because of their low income and other reasons and the children are obviously dependent on their parents. On the other hand, the younger adults frequently leave the community permanently as previously stated, or find social outlets elsewhere. For example, if younger adults live in Taft, they may go to Muskogee, which is 11 miles away, or to Tulsa, which is more than 30 miles from Taft. Residents of other communities in this study that are more isolated than Taft must drive a distance of 70 miles to a major city in Oklahoma. This finding supports part of the first hypothesis, "All black communities are not self-sufficient in social services."

Another aspect of the negative correlation between years of age and educational level of the residents of the communities in this study is the area of projection and planning in terms of the future of these communities. The researcher has first-hand knowledge of the establishing of planning commissions for both Langston and Boley. The goals of these planning commissions are to develop the physical aspects of these communities as well as their human potential. The commissions are vitally concerned with the future of these communities, and are obviously concerned with projections. The knowledge that the educational level declines as the population decreases apparently will be helpful in the utilization of human potential, as it relates to economic trends. More specifically, this correlation apparently will be useful in deciding the type of merchandise one should stock in

stores, especially in the area of reading materials and games.

As indicated in Table I, there is a negative correlation between years of age and the number of people who live in one house. This correlation is significant at the .Ol level. The older the respondents are, the fewer the number who live in a single household. These findings could be helpful to the planning commission, as previously mentioned, or to a similar organization in those communities which do not have a body designated by that name, but its function is similar. One important aspect of city planning is zoning, and these findings could be helpful in this area.

It has been suggested that these communities, such as numerous other rural communities, were not planned, not largely developed at the whim of individual builders in terms of housing and businesses. Some of the towns are in the process of being zoned. That is, it is at the planning stage. Based upon the contacts the researcher has encountered with members of the city councils, residential zoning is vitally important to them. They are concerned with what might eventually happen if the communities experience a significant population increase, the area especially in regards to housing. Prior to this hopeful occurrence, the city planners have expressed a desire to regulate future housing MART CARDENE construction. More specifically, they want areas of the towns designated as single-unit households which characterize classical residential patterns. The planners also want other areas of the communities reserved for multiple-unit housing. This latter group would include housing projects and apartment complexes.

These findings, in regard to years of age and number of people in the house, could be helpful in projecting the need for future

housing needs according to housing types. As previously mentioned, the need for housing was listed as the second most important need in terms of the percentage of times it was mentioned; the correlation between age and the number of people in the house could serve as an indicator of the need for single-unit or multiple-unit housing.

Another important factor which is related to age and the number of people who are living in a single household is utilities. As indicated in Table III, water and other utilities comprise 10 per cent of the respondents' reply to the major need or problem of the communities in this study. In many instances, they indicated that these services were either inadequate or too costly, or both. In Table III, water as a need is listed separately because it was mentioned more frequently than the other utilities. Water, as a problem, was mentioned more often in Langston and Taft than in the other communities which are included in this study. Langston respondents tended to be primarily concerned with the cost of the water service. For example, one lady who lives alone had a water service bill for one month for \$16.00. This is only one example of similar situations. In other words, they viewed the cost of the water as the problem, and not the supply. Taft's position on the water issue is somewhat unique. As mentioned in Chapter I, a state institution is located in Taft. According to an elected official of the community, the city of Taft owns a water tower; but it is located on state property. In other words; the state officials of the institution are apparently in control of the water, and not the city of Taft.

In regard to the negative correlation between years of age and number of people in the house, these findings could be helpful in

predicting the amount of services needed. That is, the amount of water and other utilities. Some respondents mentioned a shortage of fuel, but not the frequency of its occurrence. Specifically, they mentioned the supply of gas as being inadequate. Based upon observations by the researcher, the gas pressure does occasionally become low enough to reduce the effectiveness of this service substantially.

There is a positive correlation between years of age and years in the town, as indicated in Table I. This correlation is significant at the .Ol level. The older the individuals, the longer they have lived in these communities. These findings suggest a stable population in terms of long-term residency. They also indicate more movement from the communities than to the communities. That is, there has been a tendency for individuals to leave rather than a tendency to move into these communities. These findings also suggest that the older people of these communities have lived there for a long period of time.

The positive correlation between years of age and years in the town introduces another important aspect of this study. That is the attitude toward the needs of the communities as they relate to economic factors. When asked what were the major needs or problems in the community, 19 per cent of the respondents stated the need for more businesses, which is indicated in Table III. The number of these responses are only exceeded by the need for more recreation and housing. These findings tend to support Part D of the first hypothesis: "All black-towns are not self-sufficient in economic (business, finance)."

Based upon the researcher's observations and interactions with some residents of these communities which this study includes, there

are several explanations for the lack of businesses in the communities. Some of them include the following: the high positive correlation between years of age and years in town, which suggests not only that a large number of older people have lived in the towns for a long period of time, it also suggests that the older individuals of these communities own property and have owned it for quite some time. Some of their property includes businesses, and other land or buildings which could potentially be developed into businesses. Still another aspect of the ownership of property is the individual's leaving these communities; the owners dying and not leaving a clear deed to the property.

When the above two factors are combined, the purchase of property for the development of businesses is sometimes difficult according to some of the residents of the communities. In other words, some of the business owners are older individuals and apparently do not possess the energy or inclination to improve or expand their enterprises. This is due to the decline of the population that has occurred over the past three decades, as previously mentioned. In other words, with the population declining and the business owners becoming older, they apparently did not consider it wise to invest a great deal in their businesses.

A related aspect of years of age and years in town is the failure of these communities to establish a viable economic base after they changed from a farming community to a largely residential community. As an illustration, there are not any banks or lending agencies in these communities. In order to finance businesses, housing, automobiles, and other purchases, the residents of these communities are required to find this service outside of their communities. Based upon the above, financing is no doubt, a major factor in developing businesses in these communities. In other words, If a bank or some other type of lending agency were located in the communities, that agency would be more prone to lend money for the development than banks outside of these communities. That is, if the lending agency were located in the communities, they would be a part of the communities and, therefore, more likely to take risks. In other words, the degree in which the communities in this study develop would most likely directly affect the rate of growth of the lending agency.

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As indicated in Table I, there is a negative correlation between years in school and years in town. This correlation is significant at the .Ol level. The longer the individuals have lived in the communities, the lower their educational level. These findings suggest several factors. These factors include the previous lack of educational opportunities in the communities, not a great deal of emphasis being placed upon education during earlier periods, and not much need or opportunity for formal education for the earlier residents of the communities.

Based upon the above high negative correlation between years in school and years in town, the educational opportunities in the allblack communities were apparently limited during the period prior to World War II. Since these communities are isolated geographically, as previously mentioned, if educational facilities were limited within the communities, then it would have been difficult for the residents to obtain schooling outside of the communities in numerous instances. Based upon observations by the researcher of rural schools, it is not

uncommon for them not to offer grade levels beyond grade school. It is not unusual for a large number of older individuals to have had an opportunity for only a grade school education or less, partly for this reason.

During the period when a large number of the older members of these communities were reared, a great deal of emphasis often was not placed upon formal education. The latter is especially true in the case of blacks. Employment available to blacks was primarily manual labor, which required little formal education, if any. Those professions which required a higher level of education were the classic ones for blacks. These were teaching, medicine, and law. If one did not enter these areas, he often aspired to be a postal employee.

The high negative correlation between years in school and years in town can also be viewed within the context of the need for formal education during the era in which the older members of these communities were reared. As previously stated, these were farming communities before the 1940's. This suggests that there was not a need for much formal education. Since most farming communities have traditionally been characterized by low educational levels of educational achievement, one would not be surprised to find a similar situation in these communities. Specifically, farming is primarily manual labor and there is very little else required.

According to Table I, there is a positive correlation between years in school and number of names mentioned. This correlation is significant at the .01 level. The higher one's educational level, the greater the number of names mentioned (refers to leaders in the communities). This correlation suggests that the more education individuals have attained, the greater their level of awareness in terms of issues and activities.

Business, Political, and Religious Leaders

Specifically, the communities' leaders refer to business leaders, political leaders, civic leaders, and religious leaders. While all of the communities in this study were consistent in the emergence of numerous leaders in each of the above categories, variation in these categories did occur according to towns. As indicated in Table IV, in the Langston community there were 30 different religious leaders mentioned. There were more different religious leaders named than any other category of leaders. Civic leaders, in terms of the number mentioned, followed closely with 24. Political leaders were next in order with 19. Business leaders were last with 13 being mentioned. These findings suggest that there are more religious leaders and civic leaders than political and business leaders.

According to Table V in the community of Boley, more civic Leaders are mentioned than in the other groups. They were followed closely in number by religious leaders, 16 being mentioned. There was very little difference between the number of political and business leaders, 12 and 11 different names mentioned, respectively. As in the case of Langston, but in reverse order, more civic leaders and religious leaders were named.

TABLE IV

LEADERS OF LANGSTON, OKLAHOMA (1972)

	- 1	 •••	·	· · · *	· ^	٠	· · · · ·	• • *	- 7	A.,	•	• •	2.43	• •	

Political Leaders		Business Leade	rs
Jean Haynes	20.9	Jacob Watson	30.9
Leslie Austin	15.4	Arzelia Starks	12.7
George Patterson	13.2	Dovie Williams	11.6
L. S. Scott	13.2	Jodie Hilliard	5•9
Arzelia Starks	4.9	W. T. Thomas	5.4
Priscilla Edgar	2.5	Agnes Thomas	4.8
Viola Jones	2.2	James Starks	4.2
Kathryn Stroud	2.2	Fannie Hilliard	4.0
Charles Ray	2.2	Caleb Norman	3.4
Henry C. Andrews	1.8	Nathaniel Brown	3.4
A. C. Arterbery	1.8	Evelyn Lawrence	3.1
Jimmie White	1.2	L. S. Scott	2.5
Judy Anderson	1.2	Addie Watson	1.4
Jeanetta House	1.2		
Audrey Prewitt	0.9		
Archie Burch	0.9		
Howard Caver	0.9		
William Sims	0.9		
Caleb Norman	0.9		

Civic Leaders		Religious Leader	s
Jean Haynes	17.9	James Davis	21.3
George Patterson	7.7	Charles Ray	5.1
Viola Jones	7.4	James Ford	5.1
James Davis	5.4	Henry C. Andrews	3.9
Hortense Owens	5.4	John Coleman	3.9
Leslie Austin	5.1	Verlene Farmer	3.6
Arzelia Starks	4.5	V. T. Trotter	3.6
D. C. Jones	3.2	Eva Andrews	3.6
Jeanetta House	3.2	Richmond Minnard	3.3
Kathryn Stroud	3.2	Leslie Austin	2.7
L. S. Scott	2.9	Canaria Trotter	2.4
Mary Nelson	2.6	D. C. Jones	2.1
Armelia Taylor	2.6	Jimmie McCarroll	2.1
Evelyn Lawrence	1.9	Howard Caver	1.8
Thelma Arterbery	1.6	Ed Hall	1.5
Judy Anderson	1.6	Mary Nelson	1.5
Jimmie White	1.3	Shirley Davis	1.5
Maude Brown	1.3	David Hinds	1.5
Archie Burch	1.3	Lula Cotton	1.2
Canaria Trotter	1.0	Agnes Thomas	1.2
Charley Ray	1.0	C. C. Lindsey	1.2
Mattie Atkinson	1.0	Harry Winston	1.2
Frances Roberts	1.0	Viola Jones	0.9
A. C. Arterbery	1.0	Archie Burch	0.9
		Redelia Grayson	Q•9
		Blanche Grayson	0.9

TABLE IV (Continued)

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F. L. Horne

Gladys Ray

Maude Brown

Armelia Taylor

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TABLE V

		· · · · · · · · · · · · · · · · · · ·	
Political Leaders		Business Leaders	
L. G. Ashley	21.8	E. L. Tomlin	22.6
Maurice Lee	19.2	Ben Kees	20.8
T. R. McCormick	9.6	T. R. McCormick	14.2
Elmer Lugrand	9.6	Sam Williams	8.4
Forrest Lee	8.7	Maurice Lee	5.1
Sam Wilcots	4.4	Mr. Myers	4.7
J. H. Thompson	2.2	Forrest Lee	3.6
Mr. Morgan	1.7	N. S. Myers	2,2
E. L. Tomlin	1.3	Mr. Williams	2.2
Fred Chiles	1.3	Sam Wilcots	1.5
L. L. Dolphin	1.3	Mr. Tomlin	1.1
Mr. Meyers	1.3		1

LEADERS OF BOLEY, OKLAHOMA (1972)

-	Civic Leaders		Religious Leaders	
-	Maurice Lee	13.2	Rev. Wilson	21.8
	L. G. Ashley	9.7	Rev. Morrow	6.8
	Forrest Lee	7.9	Rev. Nichols	5.1
	Sam Wilcots	7.0	Rev. Otis	4.7
	T. R. McCormick	5.3	Mrs. Spann	3,0
	Maggie Taylor	4.0	Mrs. Robinson	2.6
	Elmer Lugrand	4.0	Mrs. Hubbard	2.1
	Marvic Alexander	3.1	Rev. Nicholes	1.7
	Collidge Morgan	1.8	Mrs. Ashley	1.7
	Mr. Morgan	1.8	Mrs. Brooks	1.3
	Ben Kees	1.8	Rev. Moore	1.3
	Mrs. Ashley	1.3	Annie Thompson	1,3
	Mr. Dolphin	1.3	Coolidge Morgan	1.3
	Mrs. Johnson	1.3	Mr. Morgan	1.3
	J. H. Thompson	1.3	Rev. Williams	1.3
	Mrs. Coleman	1.3	L. G. Ashley	1,3
	Mr. C. Morgan	1.3		
	Louise Young	1.3		
	Mrs. M. Taylor	1.3		
	Mrs. L. G. Ashle	1.3		

TABLE V (Continued)

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As indicated in Table VI in the Taft community, 17 different religious leaders were mentioned. They were followed by 12 different civic leaders being named. Again, political and business leaders were next in order with nine and six, respectively. The Taft community, in terms of leadership pattern, is similar to Langston and Boley.

Table VII indicates, in the community of Tatum, more religious leaders were named, of which there were nine. The same number of business and civic leaders were mentioned, of which there were six. Political leaders were last with five being named. These findings indicate that more religious and civic leaders continue to be mentioned than political leaders, but in the community of Tatum, as many business leaders are named as civic leaders.

According to Table VIII in the community of Lima, the number of civic leaders is five. Religious leaders and political leaders are the same, which are four each. The number of business leaders is two. As in the other communities mentioned above, religious and civic leaders continue to be major categories although there are also four political leaders named.

As indicated in Table IX in the community of Vernon, five civic leaders are mentioned, four religious leaders, two political leaders, and two business leaders. The first two categories are precisely the same as Lima, and a similar pattern of Langston, Boley, Taft, Tatum and Lima.

TABLE VI

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Political Leaders		Business Leaders		Civic Leaders		Religious Leaders	
Ezra Gains	27.2	Leonard Jackson	30.4	Lela Foley	22.4	Sally Carter	6.8
Leonard Jackson	23.4	L. D. Teague	30.4	Ezra Gains	9.5	Rev. McBride	4.9
Duncan Curl	8.9	Harold Aldridge	15.8	Leonard Jackson	8.8	Ruby Brown	4.3
Harold Aldridge	6.3	C. R. Grimmett	8.2	Sally Carter	5.4	Mrs. Springs	4.3
Clyde Fields	5.7	O. V. Rome	1.8	L. D. Teague	4.1	Duncan Curl	4.3
C. R. Grimmett	5.1	Bobby Grayson	1.8	Fannie Martin	3.4	Rev. Beckner	4.3
Andrew Gandy	3.2		1	Patricia Springs	3.4	Blanche Lee	3.1
				Duncan Curl	3.4	Ellen Fields	2.5
				Alexander Spring	2.7	Rosa Brown	2.5
				C. R. Grimmett	2.7	Patricia Springs	1.9
				Harold Aldridge	2.0	Rev. B. Johnson	1.9
· · · ·				Mrs. Smith	2.0	Ezra Gains	1.9
						Mrs. Brown	1.9

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Mrs. L. Springs

Rev. Carter

Mrs. Walker

Mrs. Fields

TABLE VII

LEADERS OF TATUM, OKLAHOMA (1972)

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Political Leaders		Business Leaders		Civic Leaders		Religious Lead	ers
H. B. Mitchell	22.6	Jimmy Varner	34.1	Jewel Varner	20.3	Lillie Evans	11.2
Jimmy Varner	11.3	Willie Evans	18.3	Cecil Jones	6.8	Rev. Jackson	7.9
Willie Evans	11.3	H. B. Mitchell	15.9	Mrs. Hogan	5.4	Rev. Rushing	7•9
Jackson Payne	11.3	Rosie Swendel	4.9	Ed Winslett	5.4	Ed Winslett	6.7
Jewel Varner	6.5	Jackson Payne	4.9	Jackson Payne	5.4	Mrs. Mitchell	5.6
		Ed Winslett	3.7	Rev. Jackson	5.4	H. B. Mitchell	5.6
		anti- Anti- Anti-				Mrs. Hogan	4.5
						Roy Williams	3.4

Sam Winslett 3.4

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TABLE VIII

LEADERS	OF	LIMA,	OKLAHOMA	(1972))
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Political Leaders		Business Leader	S	Civic Leaders		Religious Leader	rs
James Gross	25.0	Jim Givens	42.1	James Gross	13.7	Eldridge Garden	17.3
W. B. Brothers	25.0	W. B. Brothers	15.8	Lawrence Hubbard	11.8	Charles Posey	7.7
Lawrence Hubbard	11.4		•	W. B. Brothers	9.8	Victoria Gross	5.8
Charles Posey	6.8			Francis Garden	7.8	Corletta Garden	5.8
				Sylvester Shelton	5.9		

TABLE IX

LEADERS OF VERNON, OKLAHOMA (1972)

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Political Leaders		Business Leaders		Civic Leaders		Religious Lead	ers
Arthur Hunter	35.0	Inez Fields	41.9	Arthur Hunter	23.3	Laura Dickerso	n 21.4
Griffin Rose	20.0	George Dozier	38.7	Fannie Ponds	16.7	Arthur Hunter	21.4
				Griffin Rose	13.3	Fannie Ponds	14.3
				Laura Dickerson	13.3	Griffin Rose	9•5
				Mr. R. Dickerson	10.0		

The above findings clearly indicate a diversity of leaders in these communities. They also suggest the importance of religious activities. Apparently, one of the reasons why Church Affiliation is important is it serves as an outlet for social activities. As previously mentioned social outlets are quite limited in these communities. Many of the activities in the communities are church related. One of the reasons why there are a number of religious leaders is because of the various religious sects in these communities. The findings also show an overlapping in terms of participation in community activities. That is, a large number of individual's names appear in more than one category. Based upon the review of the literature, the latter tends to be a pattern or characteristic of small towns.

The consistency of the fewer business leaders being mentioned as compared to other leaders apparently is indicative of their being few in number or their lack of viability.

As indicated in Table I, there is a negative correlation between the number living in one house and years in town. This correlation is significant at the .Ol level. The longer the residents of these communities have resided in the towns, the smaller the number in the household. These findings correspond with age and number of people living in one household which were presented previously. As previously mentioned, these findings suggest numerous individuals are long time residents of these communities. In addition to suggesting long time residency, the latter also suggests that older individuals have reared families and have been left alone. Based upon the researcher's conversations with some of the aged, many of their children have moved to other cities and out-of-state. Some of the older individuals

demonstrated a desire to talk at length regarding the needs of the community and the desire for activities which would include them. They appeared to be pleased, in numerous instances, to have an opportunity to talk with someone.

Many of the older respondents expressed pride in the ownership of their homes as well as a pride in the length of time they had lived in the community. Some of them told of the numerous experiences they had seen as events unfolded in these communities, which are now, to a large degree, a part of the forgotten past.

Table X indicates the most effective leaders in the Langston community. Five individuals were named most frequently. Among the five named individuals, there was one female whose name appeared above the others, and four males. All of these individuals are college graduates. In terms of occupation beginning from the top of the list, the first is a postmaster, the second is a retired agriculture teacher, the third is a minister who pastors a local church, the fourth is the Dean of Men at Langston University and also mayor of Langston, and the last individual is the Director of the Upward Bound Program, which is also located on the campus of Langston University. These findings suggest who the opinion leaders are in the community. This information would be most helpful in the implementation of requested programs, should they materialize.

TABLE X

BEST CURRENT LEADERS OF LANGSTON, OKLAHOMA 1972

Jean Haynes	38.5
George Patterson	10.6
James Davis	10.6
Leslie Austin	8.7
Howard Caver	5.8
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Table XI suggests the most viable leaders in the Boley community. Seven leaders are mentioned most often. More leaders are mentioned in Boley than in any other community which was studied. One apparent reason is due to the population size of Boley. This is, its population is larger than the other communities in this study. All of the persons named are males. The occupations of this graoup, again, beginning at the top of the list are: first, an engineer, an educator, a businessman, an engineer, a worker at Tinker Air Force Base (Oklahoma City), a businessman, and a worker. These findings indicate a diversity of backgrounds in regard to the leaders. The two engineers are also manufacturers. The findings also suggest that business oriented individuals are apparently playing a major role in community activities.

TABLE XI

BEST CURRENT LEADERS OF BOLEY, OKLAHOMA 1972

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 Maurice Lee	48.0
L. G. Ashley	12.0
Forrest Lee	4.0
Sam Wilcots	4.0
Ted McCormick	4.0
Coolidge Morgan	4.0

According to Table XII, the town of Taft has five leaders who are making a more meaningful contribution to this community than the others. As in the case of Langston, a female is listed first, and is also followed by four men. Beginning with the female, their occupations are: a community action worker, an employee at the state institution (Taft) and mayor of Taft, a worker and city councilman, a businessman, and a businessman. These findings suggest, as in the case of the female leader, a layman is considered a more effective leader in this community than elected officials which include the mayor. These findings further indicate that elected officials may not necessarily be viewed as the individuals who are accomplishing the most for the community. One possible explanation for this finding is more results are usually expected from elected officials than from private citizens, and when they do not materialize, the people are disappointed. Still another factor: there are individuals in the community who are considered reliable leaders whether they are in an official capacity or not, based upon the researcher's observations.

TABLE XII

BEST CURRENT LEADERS OF TAFT, OKLAHOMA 1972

 Lela Foley	33.3
Ezra Gains	19.6
Duncan Curl	9.8
Leonard Jackson	5.9
C. R. Grimmett	

As indicated in Table XIII, the community of Tatum has two leaders who the respondents apparently feel are performing the most community services. These findings are unique in this study because it is the only instance when a husband and wife have been named. These findings indicate the third time that a female has been mentioned most frequently as the most effective leader in the community. In terms of the wife and husband's occupation, the first is a public school teacher, and the latter is a businessman. He operates the most modern and largest grocery store in the community, or in any of the communities.

TABLE XIII

BEST CURRENT LEADERS OF TATUM, OKLAHOMA 1972

Jewel Varner 56.0 Jimmy Varner 12.0

According to Table XIV, the town of Lima has three leaders who are the most effective. All three leaders are males. Beginning with the name appearing at the top of the list, their occupations are: a worker, a businessman, and a worker. As indicated in Table VIII, all three of these leaders are also named as political and civic leaders. Again, these findings are indicative of a small community.

TABLE XIV

BEST CURRENT LEADERS OF LIMA, OKLAHOMA 1972

I	Lawren	ice Hubband	41.7
ĥ	. в.	Brothers	33.3
J	ames	Gross	25.0

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Table XV indicates that there is only one individual in the community of Vernon who is considered to be the most effective. He is a male, and his occupation is a worker. His name also appears as number one as a religious leader.

TABLE XV

BEST CURRENT LEADER OF VERNON, OKLAHOMA 1972

Arthur Hunter 50.0

Potentials of Communities

As indicated in Table XVI, the response to question number one in the questionnaire, "What are some of the good features of your community?," yielded the following results. Thirty-six per cent of the respondents in this study cited good neighborhoods. Some of them mentioned that these communities were ideal places to rear children. They also mentioned low crime rate and the lack of pollution. Numerous of the respondents also listed the location of the communities as a favorable aspect of them. The second most frequently mentioned good feature of the communities were the schools. Based upon the researcher's observations, schools have played an important part in black communities. They have been more than a center to educate the young; they have been focal points for social and political activities as well. In other words, they have served as meeting places for various community functions. In some instances, religious services have been temporarily held in school buildings. The third most often named good feature of these communities was the people who live in

these communities. This finding suggests a contrast to an overall urbanized society which is often termed by sociologists as highly impersonal. The respondents often described the people as friendly and as individuals for whom they felt a closeness. The fourth most frequently mentioned good feature of the communities in this study wene the churches. This finding apparently indicates the importance of religious activities in the communities. In other words, attending church appears to be a significant aspect of the individuals's lives, Based upon the researcher's conversations with some of the respondents, they expressed great pride, not only in their church affiliation, but also in their role in church related activites.

TABLE XVI

Feature	Per Cent
Good Neighborhoods	36
Schools	26
The People	21
Churches	14

GOOD FEATURES OF COMMUNITIES

According to Table XVII, water and streets were mentioned more frequently than any other improvements which have been made during the past five years. In terms of the water improvements, they vary from a

newly completed lake at Langston to an extension of water service in Boley, Taft and the other communities. In other words, in recent years, great emphasis has been placed upon the extension of the water service in the communities which are included in this study. The latter statement is illustrated in Table XVII. As expressed to the researcher by the respondents, water has been a major problem in the all-black communities for a long period of time. Taft, for example, was required to get its major source from Muskogee (11 miles away). According to the mayor of Taft, a water line was installed recently which connected Taft to the Muskogee water supply.

TABLE XVII

IMPROVEMENTS IN COMMUNITIES WITHIN THE PAST FIVE YEARS

Improvements	Pe r Cent
Water	37
Streets	35
Housing	24

As indicated in Table XVII, improvements of streets were the second most often named improvement during the past five years. The type of street improvements vary a great deal. The majority of these improvements, however, consist of the graveling of the streets and constructing new streets. Again, based upon the researcher's observations, more street paving has occurred in the community of Taft than in any of the other communities. There are two possible explanations for this latter finding. Taft is less isolated in terms of geographic location from larger towns than the other communities in this study. Therefore, in terms of distance traveled, the paving of the streets would, no doubt, be less expensive. Secondly, the state school for orphans and retarded children (consisting of two campuses) is located in Taft, as mentioned in Chapter I. One of the campuses is near the main part of the Taft residential area. This observation suggests that state funds or cooperation apparently was a factor in some of the street improvement projects.

According to Table XVII, housing was the third most frequently named improvement during the past five years. This findings is visible in all of these communities except Lima and Vernon. The housing construction in four of the communities in this study apparently suggests the residents' expectations for future development of their communities. The expressions of some of the respondents in the communities of Langston, Boley and Taft indicated they expected a population increase and overall improvements in general.

As indicated in Table XVIII, the respondents gave the following replies to the question, "What are the roles of the social organizations in your community?". Twenty-one per cent of the respondents viewed entertainment and recreation as the role of social organizations. Since the latter was the most frequently named role of social organizations, it apparently suggests the need for these activities. In other words, this finding tends to reinforce the finding in Table III,

as it relates to the needs of the communities. Employment ranked second in response to the above question. Fourteen per cent of the respondents stated employment in the role of social organizations in their communities. As in the case of entertainment and recreation, employment also, apparently viewed as a need in the communities, and to some individuals, it is the function of social organizations to provide it. Again, employment as recreation is discussed more fully in Table III. The least number of responses to the role of social organizations appearing in Table XVIII is education. Education, to numerous of the respondents, is not limited to formal education, but includes education being viewed from a broad perspective. These perspectives include information, political trends, and social activities. Specifically, according to some of the respondents, they expect social organizations to keep them abreast of the activities and issues involving or pertaining to their communities.

TABLE XVIII

PERCEIVED ROLES OF SOCIAL ORGANIZATIONS IN COMMUNITIES

Roles	Per Cent
Entertainment and Recreation	21
Employment	14
Education	8

Table XIX indicates the responses to the question, "What adult courses or training would you like to see offered in the community?". Adult education courses were most often mentioned, and were followed closely by business related courses and homemaking courses, which were cited the same number of times. The least number of adult courses appearing in Table XIX are trade courses. The references, "adult education courses," in this Table tends to coincide with previous discussed findings. That is, there is an inverse relationship between age and educational level. Business related courses and homemaking courses being mentioned the same number of times suggests the diversity of educational interest in these communities. Specifically, the respondent's naming business courses are apparently interested in them for occupational aspirations. On the other hand, the respondents who are interested in homemaking courses are apparently desirous to improve their level of domestic skills. The last category, as shown in Table XIX, indicates to some degree the need for improving employment opportunities for residents of black communities in terms of skill proficiency. This latter statement becomes more meaningful when business related courses are combined with the suggestion of trade courses.

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TABLE XIX

Courses	Per Cent
Adult Education	18
Business Related Courses	17
Homemaking	17
Trade Courses	14

ADULT COURSES OR TRAINING RESPONDENTS WOULD LIKE TO SEE OFFERED IN COMMUNITIES

As indicated in Table XX, the responses to the question, "What services would you like to see Langston University offer to the community?", were the least. Although adult education, more financial aid to students, and trade courses were mentioned, the researcher received the impression that the respondents, in numerous instances, were not sure of the role of Langston University. Specifically, they did not usually appear to know what services Langston could offer to them. These findings strongly suggest that Langston should establish or improve communication channels with these communities. In other words, in terms of specifics, numerous respondents were not very familiar with Langston University.

TABLE X	x
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Services	Per Cent
Adult Education	16
More Financial Aid for Students	10
Trade Courses	. 8

SERVICES RESPONDENTS WOULD LIKE TO SEE LANGSTON UNIVERSITY OFFER TO COMMUNITIES

Table XXI indicates the diversity of skills within the communities which are included in this study. These findings also suggest the potential for self-help in regard to the communities. In terms of particular skills, the residents of the communities may not be aware that some of the individuals who live in their communities possess certain skills, and stated that they would contribute these skills to the people. Based upon the questionnaire, there is a large number of retired individuals who live in these communities, and some of them stated that they would welcome the opportunity to become involved in meaningful activities. Numerous of the retired respondents possess some of the skills which are included in Table XXI.

TABLE XXI

SKILL AND EXPERIENCE RESPONDENTS CAN CONTRIBUTE TO COMMUNITIES

Skill and Experience	Per Cent
Trade Skills	10
Secretarial Skills	8
Youth Workers	8
Sewing	8
Cooking	6
Teaching Experience	5
Religious Education	3
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As indicated in Table XXII, there is a positive correlation between the level of education and political awareness. This correlation is significant at the .01 level. The greater the amount of education individuals possess, the more politically aware they apparently tend to be.

The above findings support the assumption of the importance of education in a democratic society. That is, the more education one has, the more he is aware of those factors which affect his life. These factors usually include a political process which might have a major impact upon individuals within a given society or community.

TABLE XXII

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POLITICAL AWARENESS

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	Analys	sis Variance		
SOURCE	M.S.	D.F.	F-Ratio	P
FOTAL	7.78	310.		
BETWEEN	9.22	11		
A (Sex)	2.87	1.	0.36	0.55
B (Income)	5.68	1.	0.73	0.60
C (Education)	35.14	2.	4.54	0.01
AB	0.78	1.	0.10	0.74
AC	2.18	2.	0.28	0.75
BC	1.33	2.	0.17	0.84
ABC	7.41	2.	0.95	0.61
WITHIN	7.72	299.		
MEANS FOR ALL EFFECT	rs			
A MN	1	2		
	10.91	11.16		
BMN	1	2		
	10.86	11.21		
C MN	1	2	3	
	10.35	10.94	11.82	
A*B	1	2		
1	10.81	11.02		
2	10.92	11.39		
A*C	1	2	3	
1	10.03	10.97	11.75	
2	10.68	10.90	11.90	
B*C	1	2	3	
1	10.01	10.83	11.75	
2	10.69	11.04	11.90	
CELL MEANS. BLOCKS =	- C LEVELS			
AB	1	2		
1	10.14	9.91		
2	9.89	11.47		
AB	1	2		
1	10.78	11.16		
2	10.89	10.92		
AB	1	2		
1	11.50	12.00		
2	12.00	11.80		

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	Analysis Variance				
SUBJECTS	PER CELL.	BLOCKS =	C LEVELS	5	
AB		1		2	
	1	34.00]	12.00	
	2	93.00]	17.00	
AB		1		2	
	1	14.00]	18.00	
	2	37.00	2	26.00	
AB	**. ¹	1		2	
	1	6.00]	14.00	
	2	10.00		30.00	
				s.	

TABLE XXII (Continued)

Specifically, in order to be aware of the political process, individuals must also be knowledgeable of the political leaders which control the political system.

Those individuals in this study who possess the higher level of education not only were usually more aware of their political leaders, but they were also more knowledgeable about community issues. Based upon the researcher's conversation with numerous participants in this study, persons who possess more education expressed more insight about the issues which are confronting the all-black communities. Some of their insights include the underlying causes of the problems, and how they developed in regard to the political process. In other words, some of the participants in this study presented a pro and con approach to the political structure of these communities. Several of them related their community situations with that of other communities in the general proximity. In a few instances, some of the participants compared their communities with other communities in terms of the role politics play in acquiring services. Generally, they stated that predominantly white communities are more <u>successful</u> in obtaining services from county government than the all-black communities.

According to Table XXIII, there is a negative correlation between the level of education and awareness of community needs. This correlation is significant at the .007 level. The less education individuals possess, the greater their awareness of the community needs tend to be.

Since there is also a correlation between education and income as previously stated in this study, this factor is apparently one of the explanations for the difference between viewing community needs in regard to educational levels. In other words, individuals who possess a higher level education tend to earn greater incomes; therefore, they are in a better position to seek entertainment, recreation, and other activities which are outside of these communities (which are included in this study), than those persons with less education and lower incomes.

The above suggests that community needs are relevant. These needs apparently depend largely upon the educational and income level of the individuals who are included in this study. The findings in this study suggest that the individuals who are less educated and who apparently earn a lesser income, are more restricted to the geographic locations of these communities; and are therefore, keenly aware of their needs.

TABLE XXIII

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AWARENESS OF COMMUNITY NEEDS

Analysis Variance						
SOURCE	M.S.	D.F.	F-Ratio	P		
TOTAL	6.66	308.				
BETWEEN	10.59	11.				
A (Sex)	6.67	1.	1.02	0.31		
B (Income)	4.44	1.	0.68	0.58		
C (Education)	32.62	2.	5.00	0.00		
AB	11.06	1.	1.69	0.19		
AC	5.56	2.	0.85	0.56		
BC	1.83	2.	0.28	0.75		
ABC	7.15	2.	1.09	0.33		
WITHIN	6.52	297				
MEANS FOR ALL EFFEC		·,				
A MN	1	2				
•	8.17	7.71				
B MN	1	2				
	7.75	8.13				
C MN	1	2	3			
	8.29	8.59	6.93			
A*B	1	2				
· 1	7.68	8.65				
2	7.82	7.60				
A*C	1	2	3			
1	8.91	8.50	7.09			
2	7.66	8.58	6.78			
B*C	1	2	3			
1	8.18	8.56	6.51			
2	8.40	8.62	7.36			
CELL MEANS. BLOCKS						
AB	1	2				
1	8.03	9.80				
2	8.32	7.00				
AB	1	2				
1	8.45	8.56				
2	8.68	8.68				
AB	1	2				
1	6.57	7.60				
2	6.45	7.11				

Analysis Variance					
SUBJECTS	PER CELL.	BLOCKS = C	LEVELS		999 - 1999 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1
AB		1		2	
	1	27.00		5.00	
	2	43.00		2.00	
AB		1		2	
	1	11.00		16.00	
	2	75.00		29.00	
AB		1		2	
	1	14.00		23.00	
	2	22.00		42.00	

TABLE XXIII (Continued)

As indicated in Table XXIV, there is some degree of difference by occupational level. Although this difference is not significant, occupational level is apparently a factor in terms of political awareness on the part of the respondent, in other words, the higher of the occupational level, the greater the tendency to be more aware of the political aspects of the communities.

The findings in Table XXIV tend to support the correlation between the level of education and political awareness (Table XXII). That is, there is a positive correlation between education and occupational level as observed by the researcher, therefore, those individuals who possess the most formal education tend to have higher educational levels.

Some apparent explanations for the findings in Table XXIV as they relate to political awareness and occupational level, can be attributed to the social position the individuals occupy based upon occupational levels in many instances. Specifically, those individuals in these communities who occupy higher occupational levels also tend to play a major role in the political affairs of their respective communities. Generally, the greater one's involvement in political activities, the more aware of political affairs one is likely to be.

TABLE XXIV

POLITICAL AWARENESS ACCORDING TO OCCUPATIONS

SOURCE	M.S.	D.F.	F-Ratio	Р
TOTAL	7.84	310.		
BETWEEN	5.64	11.		
A (Sex)	0.34	1.	0.04	0.83
B (Income)	7.36	1.	0.92	0.66
C (Occupationa	1 ·			
Level)	12.69	2.	1.60	0.20
AB	2.41	1.	0.30	0.58
AC	0.75	2.	0.09	0.90
BC	6.20	2.	0.78	0.53
ABC	6.30	2.	0.79	0.54
WITHIN	7.92	299.		
MEANS FOR ALL EFFE	CTS			
A MN	1	2		
	· 11.04	10.95		
BMN	1	2		
	10.79	11.20		
C MIN	1	2	3	
	10.74	11.54	10.71	
A*B	1	2		
	10.95	11.28		
A*C	1	2	3.	
1	10.91	11.55	10.66	
2	10.57	11.52	10.76	
B*C	1	2	3	
	10.40	11.70	10.26	

CHAPTER IV

BUSINESS AND POLITICAL LEADERS

This chapter is primarily concerned with the opinion of business and political leaders in the all-black communities which are included in this study. These individuals were selected, based upon the data which was obtained from the main questionnaire. As indicated in Chapter I, an addition to the regular questionnaire was prepared in order to interview this specific group of individuals. The decision to ask the business and political leaders more questions than the other citizens of the communities was based upon the assumption that these individuals are in a position to possess certain information which might not be available to the layman. In this chapter, the business and political leaders will be referred to as 'leaders.'

As indicated in Table XXV, the leaders named highways and schools as equally important in their reponse to, "Please name three economic assets of your community." In other words, each was mentioned 35 per cent of the time. These findings suggest the apparent importance of transportation and education to the leaders. A possible explanation for highways being mentioned as often as they were is because Taft is the only community in this study that has a railroad. Therefore, the highways are the only means by which land vehicles can reach these communities. Water being listed as economic assets suggests the improvements which have been made in this area in recent years. As

previously mentioned, an adequate water supply has been a problem for these communities for a long period, and numerous leaders expressed relief that it can now be listed as an asset rather than a liability. Only eight per cent of the respondents viewed the labor force as an asset. This finding is apparently due, in part, to the level of training that numerous individuals possess (which will be presented later). The level of training is generally considered inadequate by the leaders. Specifically, it is viewed as a problem.

TABLE XXV

Assets	Per Cent
Highways	35
Schools	35
Water	19
Labor Force	8

ECONOMIC ASSETS OF COMMUNITIES

Table XXVI contains the services the communities have, and it is the response to, "What services do you have in your community?". These findings suggest that the leaders do not perceive the communities as having very many services. As Table XXVI indicates, 50 per cent of the leaders named the post office, and 29 per cent mentioned service stations. These findings suggest a disadvantage that these all-black communities possess in terms of services. These findings further indicate the lack of self-sufficiency of these communities and they also support the first hypothesis, "All-black towns are not selfsufficient."

In their reply to "Where can you get money for development of community resources?", all of the leaders named sources which are outside of their communities. Most of the leaders gave names of banks which are close to their respective communities, and others mentioned government related programs. These findings suggest a major weakness of the all-black communities, and also indicate the degree they are dependent upon outside sources for their development.

TABLE XXVI

SERVICES THAT THE COMMUNITIES HAVE

Services	Per Cent
Post Offices	50
Service Stations	29
	

As indicated in Table XXVII, the lack of finance was mentioned most frequently to the question, "What are the major developing problems of your community?". This finding suggests that less than onethird of the leaders view the lack of finances as a major developing problem of their communities. The other most often stated problem is

unemployment. In other words, there are not enough jobs available in these communities, according to the leaders. Unemployment in the communities, will be discussed later in this chapter.

TABLE XXVII

MAJOR DEVELOPING PROBLEMS OF COMMUNITIES

Problems	Per Cent
Lack of Finance	29
Unemployment	22

Table XXVIII shows the services the communities have that could lead to economic improvements. The labor force was, by far, the most frequently mentioned by the leaders with 60 per cent. These findings suggest the adequate supply of manpower in the communities as well as the importance the leaders attached to it. These findings also suggest that the labor force in these communities, as in the others which the researcher reviewed, is their most important asset in terms of services. There is an apparent urgent need to train the unemployed in order to improve the labor force. As previously mentioned, the unemployment rate is as high as 25 per cent. Thirty-five per cent of the leaders cited water as a service that could lead to economic improvements. This suggests that, while laymen apparently view water as a need, some of the leaders view it as an economic asset. Finally, only five per cent of the leaders mentioned sewage as an economic asset.

In response to the question, "Is there land available for more housing and businesses?", all of the leaders replied "yes" to the question. The mean estimate of available land in the communities is 60 per cent. In other words, the leaders estimated as an average that less than one-half of the communities' land was being utilized. This estimate on the part of the leaders supports the researchers observations which were presented in previous chapters in regard to the amount of space between houses.

TABLE XXVIII

Services	Per Cent
Labor Force	60
Water	35
Sewage	5

SERVICES THE COMMUNITIES HAVE THAT COULD LEAD TO ECONOMIC IMPROVEMENTS

Table XXIX shows the organizations that are primarily responsible for the present development of communities. The organization which appeared most frequently is the Chamber of Commerce, which the respondents named 43 per cent of the time. This finding indicates the potential for the development of more cooperative programs which could be helpful to the communities. It was followed fairly close by the city council that netted 36 per cent of the leaders' opinions. The planning commission was named only five per cent of the time. These findings suggest there is not a great deal of difference between the Chamber of Commerce and city council in terms of the role they are perceived as playing as viable force in the development of these communities. Based upon the researcher's knowledge of these communities, a possible explanation of the planning commission being named only five per cent of the time is apparently due to two factors. The planning commission has been in existence for less than 18 months at the longest, and in some communities, it does not exist or has existed for less than six months.

TABLE XXIX

ORGANIZATIONS THAT ARE PRIMARILY RESPONSIBLE FOR THE PRESENT DEVELOPMENT OF COMMUNITIES

Organizations	Per Cent
Chamber of Commerce	43
City Council	36
Planning Commission	5

In reply to the question, "What percentage of the work force in your community is employed outside of the community?", the mean estimate of the work force that is employed outside of the community is 55 per cent. According to Table II, the findings in this study show that 46 per cent of the work force is employed outside of the community. In either case, both of the figures suggest approximately 50 per cent of the work force is employed outside of these communities. These findings also support, as previously mentioned in prior chapters, that these communities are residential to a large degree, and not self-sufficient ones. The review of the literature suggests that this finding is not peculiar to the communities that are included in this study.

In response to the question, "What is the problem you usually encounter in hiring people?", 42 per cent of the leaders stated inadequate training of the individuals. This finding supports the third hypothesis, "There is not a sufficient supply of trained labor." In other words, there is not a skilled labor force in these communities, and it apparently presents a problem to the local employers, as well as a problem for the workers when they seek employment; as indicated by the high unemployment rate in these communities which will be discussed next.

In reply to the question, "What is the approximate unemployment rate in your community?", the leaders gave a mean estimate of 33 per cent. According to the United States Labor Department, this is more than five times greater than the national average. The above finding suggests that if similar conditions existed in the United States as a whole, in terms of the 33 per cent unemployment rate, an economic

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depression, no doubt, would exist. While there are numerous more factors involved in a nation as a whole than a few small communities, the above comparison does indicate the gravity of the all-black communities' situation.

Table XXX indicates the types of training individuals need in the communities, according to the leaders. They mentioned vocational training 78 per cent of the time; and adult education, 15 per cent; and nursing, five per cent. These findings indicate the leaders apparent concern for the establishment of a sounder economic base, based upon more highly skilled labor and lower unemployment. These findings also support the 42 per cent of the leaders citing inadequate training as a usual problem they encounter in hiring people.

TABLE XXX

TYPES OF TRAINING INDIVIDUALS NEED IN THE COMMUNITIES

Skills	Per Cent
Vocational Skills	78
Adult Education	15
Nursing	5

When the data appearing in Table XXVIII is compared with Table XXX, on the surface they may appear to be inconsistent. Table XXVIII, as previously mentioned, contains the leader's reply to the question, "What service does your community have which could lead to economic improvement?", and the labor force was mentioned 60 per cent of the time. Then, in Table XXX, the leader's reply to the question, "What do the people need in terms of training?", vocational skills are mentioned 78 per cent of the time. Based upon the researcher's conversation with the leaders, in Table XXVIII, they were not only referring to the trained individuals in the community, but the potentials of the untrained as well. They also indicated the importance of extensive vocat<u>ional training and</u> how it could improve the community in various respects. Specifically, they expressed a grave concern for the unemployed, and ways to enable them to become more employable.

In terms of establishing a more viable economic base, the leaders expressed a desire to attract industry to their communities. This occurred especially in Langston, Boley, and Taft. During the researcher's last contact with the community of Taft, it was in the process of acquiring a toy factory to locate there. Planning commissions in both Langston and Boley are seeking to find ways to secure small industry for their respective communities. Currently, Boley is the only community in this study that has a factory. Its factory employs approximately 30 persons, according to its owners, and it also has received several government contracts. In this factory, they manufacture shipping crates, furniture, and barbeque cookers.

The improvement of the water supply, combined with better streets and roads are apparent factors in causing the leaders to view the future of the all-black communities with more optimism.

CHAPTER V

SUMMARY AND CONCLUSION

A great deal has been written about communities. The writings have dealt with generalities as well as specifics, but there is an underlying characteristic of most of the writings in regard to their inclusion of blacks. These writing have often either excluded blacks or have dealt primarily with black sub-communities. This research has examined six all-black communities in a manner which has not been done previously. That is, it analyzed socio-economic factors which are vital aspects of these communities. What the findings imply will be discussed below.

The findings in this study support the first hypothesis, "Allblack towns are not self-sufficient." The researcher predicted the towns are not self-sufficient in educational services, religious services, social services, and economic services. All of these predictions were supported with the exception of self-sufficiency in regard to religious services. The other three services above were viewed as a problem according to the findings of this study. This implies that the residents of the all-black communities in this study are not only aware of their needs, but also view their dependency upon outside sources as a dilemma. This implication is extremely meaningful when it is viewed within the context of the services Langston University can offer to these communities. The finding suggests the residents of

the all-black communities are not only receptive to outside approaches to possible solutions to their lack of self-sufficiency, but they also desire assistance. This finding is important for a series of reasons. These reasons include the following: "outsiders" have frequently interfered in the lives and pattern of living of various communities and societies during recent years. These individuals have behaved, in numerous instances, on the assumption that they knew what was best for the people involved. Consequently, during the process of aiding the "unfortunate" individuals, outsiders have imposed their values upon others by determining, in many cases, the "needs" of the people. As previously implied, since this study was designed in a manner that it can become action oriented, it is essential that the desires of the respondents be clearly presented. In other words, in numerous studies, a limited number of "leaders" have been included in a study and an assumption of the needs or problems which confront the individuals have been based upon the data provided by a few who might not be representatives of the overall population. This is definitely not the case in this study. The major portion of this study includes the data which were collected from the rank-and-file individuals in the allblack communities. More specifically, the opinions of the masses are presented and not merely a selected few.

The findings in this study also support the second hypothesis, "There is unemployment and under-employment" in the all-black communities. The findings indicate a high unemployment rate in these communities which is as high as 25 per cent of the available labor force. Under-employment is also strongly suggested by the low mean income of the communities, as well as by the respondents' expressions

of the needs of the communities. While it is usually agreed, unemployment and under-employment are common characteristics of rural, nonindustrial and non-farming communities, the degrees of these factors were not known. Therefore, these findings are revealing.

The third and final hypothesis was supported by the findings in this study, "There is not a sufficient supply of trained labor" in the all-black communities. The implications of this finding is important in relationship to the emphasis which is presently being placed upon the potential for development of the communities in this study. The rapid rebuilding of West Germany and Japan following the destruction of their industrial base after World War II, indicates the significance of a well trained supply of labor. In other words, it has been suggested that the most important resource a country has is its people; its trained people. A similar principle can apparently be applied to communities. The data analysis in this study shows that the respondents consider the level of training of the individuals in these communities as inadequate. As in the case of the second hypothesis, unemployment and under-employment, the mean income suggests the labor force is not highly skilled.

The findings in this study indicate that leadership in the allblack communities is highly diversified. That is, a large number of individuals were named by the respondents as leaders in the categories of business, political, civic, and religion. While a few leaders were named more frequently than other persons, the number of different leaders named by the respondents might have far-reaching implications in regard to planned change. These implications can be viewed as both positive and negative. From a <u>positive</u> perspective, diversity of

leadership tends to suggest a variation of ideas and opinions. In other words, the welfare and interest of the masses are more likely to be represented, or at least known, when leadership is in the hands of a Jarger number of individuals instead of a few persons. From a negative point of view, too much leadership might well lead to a very minimum of leadership because of conflict. In either case, the diversity of leadership is a factor which might well be considered during the process of any initiation of change. This latter statement is quite meahingful because all of the communities represented in this study, in terms of their respondents, expressed a desire for some type of industry to be located in their communities. They also suggested the teaching of certain courses. If the above suggestions are to become a reality, they will necessitate a series of decisions and, hopefully, a consensus of the people. Consequently, leadership will play an important role.

The data in this study revealed that religious activities are important in the lives of the individuals in the all-black communities. In three of the six towns included in this study, more religious leaders were named than any other category. In the remaining three communities, almost as many religious leaders were named as political, business, and civic leaders. Emphasis upon religion is also indicated by the number of churches in these communities. It is not unusual to count more than a half dozen churches in one community. Emphasis upon religion was further illustrated during the researcher's conversations with the respondents. Numerous of them mentioned their religious activities and the importance of them. They also indicated, in numerous instances, the desire for more religious education, or their

willingness to participate in the same. An apparent explanation for the reasons for the great amount of emphasis placed upon religion is not limited to the importance of morality in these communities, but the lack of recreational and social outlets. The researcher is suggesting that the church is more than a religious center to the individuals, but is also a social institution as well. In other words, activities originating in the church become an important part of the individual's lives. These functions include various types of religious organizations which not only meet in the churches, but also in the homes of the people as well.

As indicated above, there is not adequate recreational and social outlets in the communities that are included in this study. The lack of these facilities is viewed as a major problem or need by the respondents in this study. When the latter is considered in conjunction with the population loss of these communities, there is an implication that the addition of recreational and social outlets could lead to, or be a factor in the reduction of the population loss due to the movement of young adults to larger towns.

The findings in this study indicate that 46 per cent of the employed individuals in this study work outside of the communities. These findings imply a series of factors. First, there is not adequate employment opportunities in these communities to support their working force. Secondly, because of the remote location of most of the communities in this study, the workers must commute from 11 to 70 miles to their place of employment. Thirdly, these towns are largely rural residential areas, and they are not self-sufficient. Fourthly, these communities are not economically viable. That is, in terms of their

economic base, they are not fully developed and must depend upon other towns. Fifthly, commuting from one town to the next often adversely affects the income of the workers. This is especially accurate when the worker's earning potential is already low in numerous instances.

This study has indicated the influence social change has had upon all-black communities, which are included in this study. It has transformed previous rural farming communities into rural residential areas, as indicated above.

Some of the findings in this study could be applied to numerous rural or small communities. In other words, they tend to have a great deal in common. For example, small communities are confronted with a series of problems. These problems include the loss of population, due to the younger individuals leaving the communities. Consequently, the population, in terms of its age, tends to be older or younger. There is not a usually large number of people who are in their twenties, thirties, or early forties. Another problem small communities experience is the lack of employment opportunities. These small towns are often nonindustrial and with the decline of their population, there is a lesser demand for services than existed previously.

Small towns also possess economic development problems especially in regard to their development. These problems are compounded by several factors. These factors include the unwillingness for individuals to invest a large sum of money because they fear, in some instances, that the particular town might dwindle greatly in terms of its population. In addition, for similar reasons, lending institutions may tend to be reluctant to lend large sums of money for the development of small communities. In other words, these communities may be

viewed by lending institutions as poor risks, especially for long term loans.

Most of the findings in this study could lead to further research. These findings introduce several possibilities in terms of further research. As an illustration, a participant observer study could be made which focuses upon only one of these all-black communities, which are included in this study. Since this study has revealed that there is a high degree of commonality in these communities, apparently, a participant observer method of study of only one community would be most revealing. More specifically, in regard to commonality, this study showed that there is a diversity of leadership roles in the allblack communities. It also, as previously stated, revealed that these communities are not self-sufficient in almost all of the areas which were stated in the hypothesis. In other words, one of these communities might serve as a common denominator for all.

Still another approach to further research of these communities would divide the communities in this study into two separate categories, according to state institutions being located near them. This study showed that the three largest communities which are Langston, Boley, and Taft, have state supported institutions located in or near them. The effect these institutions have upon the political, economic, and social aspect of these communities could be most revealing. Some of the affects these state institutions have upon the communities are apparently their larger size, as previously mentioned, but an in-depth study, no doubt, would show other factors as well.

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APPENDIX A

SOCIO-ECONOMIC STUDY

I. Questionnaire administered to business and political leaders in the communities, June, 1972.

Please name three economic assets of your community (roads, railroads, etc.).

What services do you have in your community (banking, etc.)?

Where can you get money for development of community resources?

What are the major developing problems of your community?

What services does your community have which could lead to economic improvement (water, labor force, etc.)?

What organization is primarily responsible for the present development or improvement of your community?

Approximately what percentage of the work force in your community is employed outside of the community?

What is the problem or problems you usually encounter in hiring people (level of training)?

What is the approximate rate of employment in your community (percentage)?

What do the people need in terms of training?

II. Questionnaire administered to lay people in communities, June, 1972.

What are some of the good features of your communities. Try to get at least two.

What are some of the things that have been done in this town to improve it within the past five years?

Are you or members of your family active in any community activities? List.

Please name three political leaders in the community.

Please name the three leading businessmen in the community.

Please name three people who are most active in community affairs.

Please name three religious leaders in the community.

Name the leader, who in your opinion, is now doing the most good for the community.

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What are the major needs or problems in your community? Economic, Social, Housing, Political and City improvement problems. What would you suggest for solving these community problems? Does your community have adequate employment opportunities? Very good _____ Good _____ Fair ____ Inadequate _____ Do you have a community action group? Yes _____ No _____ Don't know How successful is it in accomplishing goals? None _____ A little _____ Considerable _____ A lot ____ Does your community have adequate political representation? Excellent Good Fair Inadequate Does your community have adequate business services? Outstanding _____ Above average _____ Average _____ Below average Does your community have adequate public service? Very good _____ Good _____ Fair ____ Inadequate _____ Does your community have adequate social outlets? Excellent Above average _____ average _____ Inadequate _____ Does your community have adequate recreational outlets? Outstanding Good Fair Inadequate What kinds of programs would you like to work with to improve your community? What are the roles of the social organizations in your community? Two goals - example, school, church, clubs, and political agencies.

What adult courses or training would you like to see offered in the community?

What services would you like to see Langston University offer to the community?

What skills or experiences do you have which could contribute to the community?

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APPENDIX B

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0031 D0 35 1=17,19 0032 TF(JN(1).E.JNON) GO TO 35 0133 N1=(JN(1)-LITO)/2**24 0034 IN[1]=IN(1]*10+N1 0035 35 CONTINUE 0037 37 FORMAT(//* DATE SET IN ERNOR. RESPONDENT NO.*,14//) 0037 37 FORMAT(/* DATE SET IN ERNOR. RESPONDENT NO.*,14//) 0038 TF(IN(3)+IN(2).NC.4) WRITE(6,37) IN(2) 0039 CINITUAE 0039 CINITUAE 0039 CINITUAE 0039 CINITUAE 0039 CINITUAE 0039 CINITUAE 0039 CINITUAE 0040 TF(IN(1)+LG.4) GO TO 30 0041 39 CONTINUE 0042 LA*IN(1) 0042 LA*IN(1) 0045 VO. 0042 LA*IN(1) 0045 VO. 0046 D0 40 J=1,52,72 0045 VO. 0046 CINITUAE 0046 D0 40 J=1,56,4 0047 LC=MINO(1+IN(13)/5,2) 0046 D0 40 J=1,56,4 0048 D0 40 J=1,56,4 0048 D0 40 J=1,56,4 0049 CINITUAE 0048 D0 40 J=1,56,4 0049 CINITUAE 0048 D0 40 J=1,56,4 0049 CINITUAE 0049 CINITUAE 0050 GO TO 43 0051 GO TO 43 0052 D0 42 J=4,10 0053 AD=1N(J)/2 0054 42 V=V4AD 0055 43 M=(LA-1)*NE*NC + LC] * 2 - 15/I 0056 SI(M)=SQ(M)+V*2 0058 GIM=SQ(M)+V*2 0058 GIM=SQ(M)+V*2 0058 GIM=SQ(M)+V*2 0059 GO TO 30 0061 45 CONTINUE 0060 GO TO 30 0070 GO TO 40 SI AD 40 0070 GO TO 40 S					
0022 'F(JN(1),EQ,NON) GO TO 35 0033 N1=JN(1)=IT(J7)2*2*4 0036 35 CONTINUE 0036 36 IF(IN(3)+IN(20),NE,4) WRITE(6,37) IN(2) 0037 37 FORMAT(//) DATE SET IN ERROR. RESPONDENT NO.*,14//) 0038 IF(IN(3)+IN(20),NE,4) STOP C IN(1)=SEX: IN(3)=IN(20K; IN(15)=0CCUP.; IN(17)=SCHOOLING C LAHMALE, FEM: LB=4/07, B*; LC1=BLUE, WHITE, RETIRE; LC2=ELEM. HI34, COLLEGE 0039 CONTINUE C IN(1)=SEX: IN(3)=IN(20K; IN(15)=0CCUP.; IN(17)=SCHOOLING C LAHMALE, FEM: LB=4/07, B*; LC1=BLUE, WHITE, RETIRE; LC2=ELEM. HI34, COLLEGE 0040 TF(IN(1)=E4,0) GO TO 30 0041 39 CONTINUE C INCOME LDWER LIMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; 0042 LA=IN(11) 0043 LB=HIN(1)+IN(13)/5,2) 0044 D0 44 I=I5,17,2 0045 V=0. C SUMMATION OF LEADERS NAMED. 0048 D0 40 J=I,56,4 0048 D0 40 J=I,56,4 0048 D0 40 J=I,56,4 0048 D0 40 J=I,56,4 0050 GO TO 43 COS1 41 LC=NINO(1+IN(17)-5)/4,3) 0052 D0 42 J=4,10 0055 43 N=(I(A-1)NNE MC + (LB=1)+NC + LC] + 2 - 15/I 0056 S(M) = S(M) + V*+2 0057 S(M) = S(M) + V*+2 0058 44 CCNTINUE 0059 GI M) = S(M) + V*+2 0059 GI	C030	IF(N13.EG	• NON) [N(13)=[N(13)/10)	
0022 'F(JN(1),EQ,NON) GO TO 35 0033 N1=JN(1)=IT(J7)2*2*4 0036 35 CONTINUE 0036 36 IF(IN(3)+IN(20),NE,4) WRITE(6,37) IN(2) 0037 37 FORMAT(//) DATE SET IN ERROR. RESPONDENT NO.*,14//) 0038 IF(IN(3)+IN(20),NE,4) STOP C IN(1)=SEX: IN(3)=IN(20K; IN(15)=0CCUP.; IN(17)=SCHOOLING C LAHMALE, FEM: LB=4/07, B*; LC1=BLUE, WHITE, RETIRE; LC2=ELEM. HI34, COLLEGE 0039 CONTINUE C IN(1)=SEX: IN(3)=IN(20K; IN(15)=0CCUP.; IN(17)=SCHOOLING C LAHMALE, FEM: LB=4/07, B*; LC1=BLUE, WHITE, RETIRE; LC2=ELEM. HI34, COLLEGE 0040 TF(IN(1)=E4,0) GO TO 30 0041 39 CONTINUE C INCOME LDWER LIMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; 0042 LA=IN(11) 0043 LB=HIN(1)+IN(13)/5,2) 0044 D0 44 I=I5,17,2 0045 V=0. C SUMMATION OF LEADERS NAMED. 0048 D0 40 J=I,56,4 0048 D0 40 J=I,56,4 0048 D0 40 J=I,56,4 0048 D0 40 J=I,56,4 0050 GO TO 43 COS1 41 LC=NINO(1+IN(17)-5)/4,3) 0052 D0 42 J=4,10 0055 43 N=(I(A-1)NNE MC + (LB=1)+NC + LC] + 2 - 15/I 0056 S(M) = S(M) + V*+2 0057 S(M) = S(M) + V*+2 0058 44 CCNTINUE 0059 GI M) = S(M) + V*+2 0059 GI	0031				
0033 N1=(JN(1)-LITO)/2**24 0034 IN(1)-IN(1)*10(*N1 0035 35 CONTINUE 0037 37 FORMAT(//* DATE SET IN ERROR. RESPONDENT NO.*,14//) 0037 37 FORMAT(//* DATE SET IN ERROR. RESPONDENT NO.*,14//) 0038 CONTINUE 0040 CIN(1)=SEX; IN(13)=INCOME; IN(15)=CCCUP.; IN(17)=SCHOOLING 0141 CLAES, FEM; IN(13)=INCOME; IN(15)=CCUP.; IN(17)=SCHOOLING 0142 CLAES, FEM; ISO=/04/, 95; LC1=BLUE, WHITE, RETIRE; LC2=ELEM. H134, COLLEGE 0040 IF(IN(1)=64,0) GO TO 30 0041 39 CONTINUE 0142 CLAES, IN(1)=00 CD TO 30 0042 CLAES, IN(1+10,15), TWO LEVELS: 1, \$ 000; 2, \$5000; 0042 CLAES, IN(1+10,15), TWO LEVELS: 1, \$ 000; 2, \$5000; 0044 DO 44 I=15,17,2 0044 DO 44 I=15,17,2 0045 V=0. 0046 CD 40 J=15,51,7,2 0046 CO 40 J=15,51,7 0047 CC=MINO(1+1N(17)/15/10,1) 0048 CO 40 J=15,51,4 0049 40 F(AM(J),NE,UN) V=V+1. 0050 GO TO 43 0051 41 LC=MINO(1+(IN(17)-5)/4,3) 0052 NO 42 J=4,10 0053 AC=IN(J)/2 0055 43 M=(LA=1)*NB *NC + (LB=1)*NC + LC] * 2 - 15/I 0056 SI(M)=SG(M)=VM=2 0057 SI(M)=SG(M)=VM=2 0058 G(M)=GM)=1,LST 0057 SI(M)=SG(M)=VM=2 0056 G TO 30 0051 45 CONTINUE 0056 G TO 30 0051 45 CONTINUE 0057 SI(M)=SG(M)=VM=2 0056 G TO 30 0051 45 CONTINUE 0056 G TO 30 0051 45 CONTINUE 0057 SI(M)=SG	0032				
0034 IN(1)=IN(1)*10+N1 0035 35 CONTINUE 0036 36 IF(IN(3)+IN(20),NE,4) WRITE(6,37) IN(2) 0037 37 FORMAT(//) DATE SET IN ERROR. RESPONDENT NO.*,14//) 0037 IF(IN(3)+IN(20),NE,4) STOP C IN(1)=SX1 IN(3)+IN(20),NE,4) STOP C IN(1)=SX1 IN(3)+IN(20),IN(3) 0041 39 CONTINUE C INCOME LOWER LIMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; 0042 La+IN(11) 0043 La+IN(11) IN(13)/5,2) 0044 DD 44 I=IS,17,2 0045 V=0. C Ge6 IF(I.EG.17) GD TO 41 0047 LC=MIN0(1+IN(13)/12+IN(17)/16,3) C SUMMATION OF LEADERS NAMED. 0048 DD 40 J=I,56,4 0049 40 IF(AM(J),NE,UN) V=V+1. 0050 GD 70 43 COS1 41 LC=MIN0(1+IN(17)-5)/4,3) 0052 nD 42 J=4,10 0053 42 V=VA(0)-INNEMC + (LB-1)+NC + LC] + 2 - 15/I 0055 43 M(H=SX(M)+V 0056 44 CONTINUE 0057 SI(H)=SX(H)+V*2 0058 44 CONTINUE 0058 44 CONTINUE 0059 5 (H)=G(H)+I,S0-0,1 GD TO 46 M(J)=R(J)+I,G(I) 0050 46 I=1,LAST 0051 45 CONTINUE 0052 DD 46 I=1,LAST 0053 46 CONTINUE 0054 47 CONTINUE 0055 46 CONTINUE 0055 47 J=1,JAG(I) 0057 C SI(H)=SX(I)=SX(I)**2/G(I)) 0058 48 CONTINUE 0059 C SI(H)=SX(I)=SX(I)**2/G(I) 0050 C SI = NN = NN 0070 TN = NN 0071 AN = NA 0072 BN = NB 0073 C(I) = AN = 1.0 0074 D(2) = TN - 1.0 0075 D(2) = TN - 1.0 0075 D(2) = TN - 1.0 0076 D(6) = C(3) * 0(4) 0077 D(1) = NN = NC 0077 D(2) = TN - 1.0 0077 D(1) = NN = NC 0077 D(2) = TN - 1.0 0078 D(6) = C(3) * 0(4) 0071 D(6) = C(3) * 0(4) 0071 D(6) = C(3) * 0(4) 0071 D(6) = C(3) * 0(4) 0072 D(6) = C(3) * 0(4) 0073 D(6) = C(3) * 0(4) 0074 D(6) = C(3) * 0(4) 0075 D(1) = C(3) * 0(4) 0076 D(6) = C(3) * 0(4) 0076 D(6) = C(3) * 0(4) 0077 D(6) = C(3) * 0(4) 0077 D(6) = C(3) * 0(4) 0077 D(7) = D(7) * 0(
0035 35 CONTINUE 0036 36 IF(IN(3)+IN(20).NE.4) WRITE(6,37) IN(2) 0037 37 FORMAT(//' DATE SET IN ERROR. RESPONDENT NG.*,14//) 0038 IF(IN(3)+IN(20).NE.4) STOP 0039 C.N(11)=SEX; IN(13)=INCOME; IN(15)=OCCUP; IN(17)=SCHOOLING C LANALE, FEH, LB=4/8/, B+4 (C1=0LUE, WHITE, RETIRE; LC2=ELEM. HIG4, COLLEGE 0039 D0 39 I=11,17,2 0040 IF(IN(1)+EG.0] GO TO 30 0041 39 CONTINUE C INCOME LOWER LIMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; 0042 LA=IN(11) 0043 LB=MINO(1+IN(13)/5,2) 0044 D0 44 I=15,17,2 0045 V=0. CC464 IF(IN(1)/1/2)/1/2+NI(17)/16,3) C SUMMATION OF LEADERS NAMED. 0048 0045 D0 40 J=1,56,4 0046 D0 F0 J=1,56,4 0047 LC=MINO(1+IN(17)-5)/4,3) 0058 AD=IN(J)/2 0051 AD =10 TO 41 0053 AD=IN(J)/2 0054 42 V=4AD 0055 43 M=((LA=I)*NE MC + (LB=1)*NC + LC) * 2 - 15/I 0056 G(M)=6(M)+4. 0057 SQ(M)+V**2					
0036 38 IF(1N(3)+IN(20,NE,4) WHITE(6,37) IN(2) 0037 37 FORMAT(V' DATE SET IN ERROR. RESONDENT NO.+,14//) 1F(1N(3)+IN(20),NE,4) STOP C IN(11)=SEX:1013)-IN(COME; IN(15)=OCCUP,: IN(17)=SCHOOLING C LA=MALE, FEM: LB=4/ 8/, 8+; LC1=0LUE, WHITE, RETIRE; LC2=ELEM. HI34, COLLEGE 0039 [0]11,722 0040 IF(1)=SEX:10130-IN(2), 8+; LC1=0LUE, WHITE, RETIRE; LC2=ELEM. HI34, COLLEGE 0041 ID(1)=SEX:10160 TO 30 0041 ID(1)=SEX:1000 TO 30 0041 ID(1)=SEX:1000 TO 30 0042 LB=N(NO(1)+IN(13)/5,2) 0043 LB=N(NO(1)+IN(13)/5,2) 0044 DD 44 [1=5,17,2 0045 V=0, C SUMWATION OF LEADERS NAMED. 0048 DD 40 J=1,56,4 0049 OD 40 J=1,56,4 0049 OD 40 J=1,56,4 0049 OD 40 J=1,56,4 0050 GD TO 43 C SUMWATION OF LEADERS NAMED. 0048 DD 40 J=1,56,4 0050 GD TO 43 C SUMWATION OF LEADERS NAMED. 0048 DD 40 J=1,56,4 0050 GD TO 43 C SUMWATION OF LEADERS NAMED. 0051 AD J=1,56,4 0052 AD J=1,56,4 0053 AD J=1,56,4 0054 GD TO 43 C SUMWATION OF LEADERS NAMED. 0055 AD J=1,56,4 0055 AD J=1,56,4 0055 AD J=1,56,4 0055 AD J=1,56,4 0055 AD =10,1/22 0056 GO TO 30 0051 AD (J)/2 0057 SC(M)=SC(M)+V. 0057 SC(M)=SC(M)+V					
0037 37 FORMAT(//* DATE SET IN ERROR. RESPONDENT NO.*,14//) 0038 IFFIN(3)+K+4 \$ STOP 0039 C N(11)=SEX; IN(13)=INCOME; IN(15)=OCCUP; IN(17)=SCHOOLING 0040 C LA=MALE, FEH, LB=/4 Ø/, Ø+; LC1=BLUE, WHITE, RETIRE; LC2=ELEM. HI34, COLLEGE 0041 D0 39 I=11.17,2 0040 J9 CONTINUE 0041 J9 CONTINUE 0042 LA=IN(11) 0043 LB=MINO(1+IN(13)/5,2) 0044 D0 44 I=15,17,2 0045 V=0. 0046 D0 44 I=15,17,2 0047 LC=HINO(1+IN(13)/5,2) 0048 D0 44 I=15,17,2 0044 D0 44 I=15,17,2 0045 V=0. 0046 D0 40 J=1,50,4 0047 LC=HINO INF.NMAPD. 0048 D0 40 J=1,56,4 0049 40 IF(AM(1),NE.UM) 0050 G0 T0 43 0051 A = 1,10,17/2 0052 D0 42 J=4,10 0053 A = 1,10,11/2 0054 EXEMPTER (MINT) 0055 G3 M=(1(A=1)*MB *NC + (LE))*AC + LC) * 2 = 15/1 0056 G(M)=5((M)+V*2) </th <th></th> <th></th> <th>IN(20) . NE. 41 WRITE (6.3</th> <th>7) IN(2)</th> <th></th>			IN(20) . NE. 41 WRITE (6.3	7) IN(2)	
0038 IF(IN(3)+IN(20),NE.4) STOP C [N(II)=SEX; IN(13)-INCOME; IN(15)=0CCUP; IN(17)=SCHODLING C LA=MALE, FEM; LB=4/8/, 8+; LC1=BLUE, WHITE, RETIRE; LC2=ELEM. HIS4, COLLEGE 0039 II.17,2 0040 IF(IN(1),EG.0) GO TO 30 0041 C INCOME LUMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; 0042 LB=NINO(1+IN(13)/5,2) 0043 LB=NINO(1+IN(13)/5,2) 0044 D0 40 1=1;5,17,2 0045 V=0.4 0046 D0 40 J=1;50,17,2 0047 LC=NINO(1+IN(13)/5,2) 0048 D0 40 J=1;50,17 0047 LC=NINO(1+IN(17)/16,3) 0048 D0 40 J=1;50,14 0049 Q(If(Awid)) V=V+1. 0050 GO If(Awid)) V=V+1. 0051 41 LC=NIN0(1+(IN(17)-5)/4;3) 0052 D0 40 J=1;50,14 Signal (III) 0053 AC=V=V:A0 Y=V:A1 0054 Signal (III) Y=V:A3 0055 43 M=((LA=1)*NB *NC + (LB=1)*NC + LC) * 2 = 15/I 0056 GO ITO 30 GO TO 30 0057 Signal (III)*Signal (III)*Signal (IIII)*Signal (IIII)*G(III) <t< th=""><th></th><th></th><th></th><th></th><th>/)</th></t<>					/)
C IN(11)=SEX; IN(13)=INCOME; IN(15)=OCCUP,; IN(17)=SCHOOLING C LA+MALE, FER, LB+4/8/, B+; LC1=BLUE, WHITE, RETIRE; LC2=BLEM. HI3-4, COLLEGE 0030 1F(1N(1)=60.0) GO TO 30 0041 39 CONTINUE C INCOME LDWER LIMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; La+IN(11) 0043 L0+MINO(1+IN(13)/5,2) 0045 W=0. C SUMMATION OF LEADERS NAMED. 0048 0048 0049 0050 C SUMMATION OF LEADERS NAMED. 0048 0050 C GT 043 CD 14(1)/2 0055 C SUMMATION OF LEADERS NAMED. 0050 C SUMMATION OF LEADERS NAMED. 0053 AC=IN(01)/2 0055 42 V=V4D 0055 42 V=V4D 0055 C SUMATION OF (LL-1)*NS *NC + LC) * 2 - 15/I 0056 SC(M)=SC(M)+V**2 0057 SC(M)=SC(M)+V**2 0058 G(M)=G(M)+V**2 0058 G(M)=G(M)+V**2 0058 G(M)=SC(M)+V**2 0058 G(M)=SC(M)+V**2 0058 G(M)=SC(M)+V**2 0054 42 CONTINUE 0055 C SIM =SC(M)+V**2 0056 C SIM =SC(M)+V**2 0057 SC(M)=SC(M)+V**2 0058 G(M)=S(M)+V**2 0058 G(M)=S(M)+V**2 0054 C SET PARAMETERS AND DEGREES OF FREEDOM. TA = NT 0071 AN = NA 0072 SN = NB C073 O(7) O(NE SPONDENT NOT VIA	· ·
C LAMMALE, FEM; LB=4/ 8/, 8+; LC1=BLUE, WHITE, RETIRE; LC2=ELEM. HI34, COLLEGE 0039 [11,17,2 0040 FF(IN(1)=E0.0) GO TO 30 0041 C INCOME LOWER LIMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; 042 LA=IN(11) 0043 LB=MINO(1+IN(13)/5,2) 0044 D0 44 [=15,17,2 0044 D0 44 [=15,17,2 0044 C LC4MINO(1+IN(17)/12+IN(17)/16,3) C SUMMATION OF LEADERS NAMED. 0048 D0 40 JF(AM(J).NE.UN) V=V41. 0049 40 FF(AM(J).NE.UN) V=V41. 0050 G0 T0 43 C051 41 LC=MINO(1+(N(17)-5)/4,3) 0052 D0 42 4:10 0055 43 M=(LLA-1)*NB*NC + (LB=1)*NC + LC) * 2 = 15/I 0056 SX(M)=SQ(M)+V**2 0057 S0(M)=SQ(M)+V**2 0058 G(M)=SQ(M)+V**2 0058 G(M)=SQ(M)+V**2 0059 G0 TO 30 0061 45 CONTINUE 0064 IF(G1).E0.0.1 GO TO 46 CC62 D0 46 I=1,LST 0064 IF(G1).E0.0.1 GO TO 46 CC62 D0 46 I=1,LST 0066 R(J)=R(J)+I.(G(I) 0066 R(J)=R(J)+I.(G(I) 0066 SX(I]=SX(I)/5(I) 0066 SX(I]=SX(I)/5(I) 0066 SX(I]=SX(I)/5(I) 0067 T(J)=T(J)+C(I) 0067 T(J)=T(J)+C(I) 0067 T(J)=T(J)+C(I) 0067 C SX(I)=SX(I)/5(I) 0066 R(J)=R(J)=R(J)+I.(S) 0067 T(J)=T(J)+C(I) 0067 T(J)=T(J)+C(I) 0067 T(J)=T(J)+C(I) 0066 SX(I]=SX(I)/5(I) 0067 T(J)=T(J)+C(I) 0067 T(J)=T(J)+C(I) 0067 C(J)=SX(I)/5(I) 0067 C(J)=SX(I)/5(I) 0067 C(J)=SX(I)/5(I) 0067 C(J)=SX(I)/5(I) 0067 C(J)=SX(I)/5(I) 0070 D(J) = AN = 1.0 0075 D(J) = AN = 1.0 0075 D(J) = AN = 1.0 0076 D(G) T(J) = TN = 1.0 0077 D(G) T = D(G) + D(G)	0050			10000 · IN(171-SCHOOL	TNG
C039 D0 39 1=11,17,2 0040 IF(IN(1)=64,0) GO TO 30 0041 39 CONTINUE C INCOME LOWER LIMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; 042 La*IN(11) 043 LB*MINO(1+IN(13)/5,2) 0044 D0 44 =15,17,2 0045 V=0. C046 IF(1.EG.17) GO TO 41 C047 LC*MINO(1+IN(17)/16,3) C SUMMATION OF LEADERS NAMED. 0048 D0 40 J=1,56,4 0049 40 IF(1A(1)).NE.NN) V=V+1. 0050 GO TO 43 CO51 41 LC*MINO(1+(IN(17)-5)/4,3) 0052 $A0=1N(1)/2$ 0055 43 M=(La+1)*NB*NC + (LB+1)*NC + LC) * 2 = 15/I 0056 SX(M)=SX(M)+V 0057 SQ(M)=SQ(M)+V*22 0058 G(M)=G(M)+1. C055 44 CCNTINUE 0056 45 CONTINUE 0057 45 CONTINUE 0056 C SX(M)=SQ(M)+V*22 0058 46 CONTINUE 0059 45 CONTINUE 0059 45 CONTINUE 0050 CO 7 30 0041 45 CONTINUE 0050 CO 7 T(1)=T(1)+(1)+(1)+(1)+(1)+(1)+(1)+(1)+(1)+(1)+		C INTILI#SEX; 1		16 UNITE DETIDE: 10	2-ELEM HIGH, COLLEGE
0040IF(IN(1)+Eq.0) GO TO 30004139 CONTINUE0042LA=IN(11)0043LB=HINO(1+IN(13)/5,2)004400 44 I=15,17,20045V=0.0046LC=MINO(1+IN(17)/12+IN(17)/16,3)CC=MINO(1+IN(17)/12+IN(17)/16,3)CC=MINO(1+IN(17)/12+IN(17)/16,3)CC=MINO(1+IN(17)/12+IN(17)/16,3)CC=MINO(1+IN(17)/12+IN(17)/16,3)0046D0 40 J=1,56,4004740 F(LAMIJ).NE.UN)V=V=1.0050GO TO 43C05141 LC=MINO(1+(IN(17)-5)/4,3)0052D0 42 J=4,100053AD=IN(J)/2005442 V=V+AD005543 M=((LA=1)*NB *KC + (LB=1)*NC + LC) * 2 - 15/I0056SX(M)=SX(M)+V0057SQ(M)=SQ(M)+V*20058G(M)=G(M)+1.C05944 CCNTINUE0060GO TO 30006145 CONTINUE0062D0 46 I=1,LST0063J=1-((I-1)/2)*20064IF(G(1)-EQ.0.) GO TO 46C065W(J)=K(J)+1./G(I)0066R(J)=R(J)+1./G(I)0067T(J)=F(J)+F(J)0068SX(I)=SX(I)/SX(I)*SX(I)*SX(I)*SU0071AN = NA0072BN = NB0073CN = NC0074D(2) = TN = 1.00075D(3) = AN = 1.00076D(4) = EN = 1.00077D(5) = CN = 1.00078D(6) = O(3) * D(4)0074D(3) * D(4)0075D(3) = CN = 1.00076D(4) = F(5)		C LAEMALE, FEM	L'B#4/ 8/, 8+; L'LEBLU	JE, WHILE, RELIKET LU	Z=CLEM. HIJ44 COLLEGE
0041 39 CONTINUE 01 C INCOME LOWER LIMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; 01 La+IN(11) 0043 LB+MINO(1+IN(13)/5,2) 0044 D0 44 1=15,17,2 0045 V=0. 0046 D0 44 1=15,17,2 0047 LC+MINO(1+IN(17)/12+IN(17)/16,3) 0048 D0 40 J=1,56,4 0048 D0 40 J=1,56,4 0050 G0 T0 43 0051 H1 LC+MINO(1+(IN(17)-5)/4,3) 0052 D0 42 J=4,10 0053 AC=IN(1)/2 0054 42 V=V+AD 0055 43 M=((LA-1)+NB+NC + (LB-1)+NC + LC) + 2 = 15/I 0056 GX(M) + SQ(M) + V*+2 0057 SQ(M) + SQ(M) + V*+2 0058 G(M) = G(M) + 1. 0059 44 CONTINUE 0051 45 CONTINUE 0052 D0 46 I=1, LAST 0053 J=I-((I-1)/2)*2 0054 GO TO 30 0055 GO TO 40 0056 R(J)=R(J)+(S(I)-SX(I)+*2/G(I)) 0057 J=I-((I-1)/G(I) 0064 IF(G(I).SC(I)-SX(I)/G(I)				\$	
C INCOME LOWER LIMITS; TWO LEVELS: 1, \$ 000; 2, \$5000; 044 LA=IN(11) 044 D0 44 l=15,17,2 044 D0 44 l=15,17,2 045 V=0. C46 IF(I.EC.17) GD TD 41 CC=MINO(1+IN(17)/12+IN(17)/16,3) C SUMMATION OF LEADERS NAMED. 048 D0 40 J=1,50,4 049 40 IF(AM(J).NE.UN) V=V+1. 050 GO TO 43 C051 41 LC=MINO(1+(IN(17)-5)/4,3) 052 D0 42 J=4,10 053 A2D=IN(1)/2 U054 42 V=V+AD 055 43 M=((LA=1)*NB*NC + (LB=1)*NC + LC) * 2 - 15/I 056 SX(M)=SX(M)+V*2 057 SQ(M)=SQ(M)+V*2 058 G(M)=G(M)+1. C059 44 CCNTINUE C062 D0 46 I=1,LAST 063 J=1-((I-1)/2)*2 064 IF(G(1).S2(J))=SX(I))*2/G(I) 065 XX(I)=SX(I)]+VZ/G(I) 066 R(J)=R(J)=R(J)=LST 067 T (J)=T(J)=C(J)=SX(I))*2/G(I) 066 C CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 070 TN = NT 071 AN = NA 072 BN = NB C073 CN = NC 075 D(S) = CN = 1.0 075 D(S) = CN = 1.0 077 D(S) = CN = 1.0 078 D(G) = D(S) + 0(S)			EQ.0) GO TO 30		
0042 LA=IN(11) 0043 LB=MIN0(1+IN(13)/5,2) 0044 DD 44 I=15,17,2 0045 V=0. C046 IF(I=EQ,17) GD TD 41 0047 LC=MIN0(1+IN(17)/12+IN(17)/16,3) C SUMMATION OF LEADERS NAMED. 0048 DD 40 J=1,56,4 0049 40 IF(AMU1)NE.UN) 0050 GD TO 43 C051 41 LC=MIN0(1+(IN(17)-5)/4,3) 0052 D0 42 J=4,10 0053 AC=IN(J)/2 0054 42 V=V40 0055 43 M=((LA-1)*NB *NC + (LB=1)*NC + LC) * 2 - 15/I 0056 GS(M) = SQ(M)+V*2 0057 SQ(M) = SQ(M)+V*2 0058 GIM)= GM N=I. 0059 42 CONTINUE 0060 GO TO 30 0061 45 CONTINUE 0062 D0 46 I=1,LAST 0063 J=I-((I-1)/2)*2 0064 IF(G(I).EQ.0.) GD TO 46 C065 M(J)=K(J)+(SQ(I)-SX(I)*K'Z(G(I)) 0066 R(J)=R(J)+I.(G(I) 0067 T(J)=T(J)+G(I) 0068 CONTINUE 0069 <td< th=""><th>, 0041</th><th></th><th></th><th></th><th>•</th></td<>	, 0041				•
0043 LB+MINO(1+IN(13)/5,2) 0044 DD 44 I=15,17,2 0045 V=0. C046 IF(I.EQ.17) GD TD 41 C047 LC+MINO(1+IN(17)/12+IN(17)/16,3) C SUMMATION OF LEADERS NAMED. 0048 DD 40 J=1,56,4 0049 40 IF(AM(J).NE.UN) 0050 GD TO 43 C051 41 LC-MINO(1+(IN(17)-5)/4,3) 0052 DO 42 J=4,10 0053 AC=IN(J)/2 0054 42 V=V+AD 0055 43 M=((LA-1)*NB*NC + LC) * 2 - 15/I 0056 SX(M)=SX(M)+V*2 0057 SQ(M)=SQ(M)+V*2 0058 G(M)=G(M)+1. 0059 42 CONTINUE 0050 GO TO 30 0061 45 CONTINUE 0062 DO 46 I=1,LAST 0063 J=I-((I-1)/2)*2 0064 IF(GTI)=SQ(I)+SX(I)**2/G(I) 0065 M(J)=W(J)*(SQ(I)=SX(I)**2/G(I)) 0061 45 CONTINUE 0062 DO 46 CONTINUE 0063 SX(I)=SX(I)/S(I)**2/G(I) 0064 G(J)=C(J)=L(J)+L(J)(I)				1, \$ 000; 2, \$5000	• •
0044DD 44 I=15,17,20045V=0.C046IF(I.EQ.17) GD TO 41/0047LC-MINO(1+INI(17)/12+IN(17)/16,3)CSUMMATION DF LEADERS NAMED.0048DD 40 J=1,55,4004940 IF(AM(J).NE.UN)0050GD TO 43C05141 LC-MINO(1+(IN(17)-5)/4,3)0052DD 42 J=4,100053AD=IN(J)/2005442 V=V+AD005543 M=((LA-1)*NB*NC + (LB-1)*NC + LC) * 2 - 15/I0056SX(M)=SQ(M)+V*20057SQ(M)=SQ(M)+V*20058G(M)=G(M)+V.005944 CCNTINUE0060GO TO 30006145 CDNTINUE0062D0 46 I=1,LAST0063J=(I(-1)/2)*20064IF(G(1).EQ.0.) GO TO 46C065M(J)=*(J)+(SO(I)-SX(I)**2/G(I))0066R(J)=*(J)+(SO(I)0067T(J)=T(J)+G(I)0068SX(I)=SX(I)/S(I)006946 CONTINUE0060C0071AN = NA0072BN = NB0073CN = NC0074D(2) = TN - 1.00075D(3) = AN - 1.00076D(4) = BN = 1.00077D(5) = CN - 1.00078D(6) = D(3) * D(4)0078D(6) = D(3) * D(4)					
0045 V=0. CG66 IF(I.EG.IT) GD TO 41 C047 LC=MINO(1+IN(17)/12+IN(17)/16.3) C SUMMATION OF LEADERS NAMED. 0048 D0 40 J=1,55.4 0049 40 IF(AM(J).NE.UN) 0050 GO TO 43 C051 41 LC=MINO(1+(IN(17)-5)/4.3) 0052 D0 42 J=4.10 0053 AD=INJJ/2 0054 42 V=V4D 0055 43 M=((La-1)*NB *NC + (LB-1)*NC + LC) * 2 = 15/I 0056 SX(M)=SX(M)*V*2 0057 SQ(M) + SQ(M) + V*2 0058 G(M)=G(M)*1. 0059 44 CCNTINUE 0050 GO TO 30 0061 45 CONTINUE 0062 D0 46 I=1,LAST 0063 J=1-((I-1)/2)*2 0064 IF(G(1).ES0.0.) GO TO 46 0065 w(J)=w(J)+1.76(I) 0066 R(J)=R(J)+1.76(I) 0067 T(J)=T(J)+6(I) 0068 SX(I)=SX(I)/5(I) 0069 46 CONTINUE 0060 C ST PARAMETERS AND DEGREES OF FREEDOM. 0071 AN = NA <td< th=""><th>0043</th><th></th><th></th><th></th><th></th></td<>	0043				
C066 IF(I_EG.T) GD TO 41 0047 LC=MIN0(I+IN(I7)/12+IN(17)/16,3) C SUMMATION OF LEADERS NAMED. 0048 D0 40 J=1,56,4 0049 40 IF(AMUJ).NEJN) V=V+1. 0050 G0 TO 43 0051 41 LC=MIN0(1+(IN(17)-5)/4,3) 0052 D0 42 J=4,10 0053 AC=INIJ/2 0054 42 V=4,4D 0055 43 M=((LA=1)*NB *NC + (LB=1)*NC + LC) * 2 - 15/I 0056 SX(M)=SX(M)+V*2 0057 SQ(M)=VS(M)+V*2 0058 G(M)=SQ(M)+V*2 0059 44 CCNTINUE 0060 GO TO 30 0061 45 CONTINUE 0062 D0 46 I=1,LAST 0063 J=1-((I-1)/2)*2 0064 IF(G(1).50.0.) GO TO 46 C065 M(J)=W(J)+(SO(I) -SX(I)**2/G(I)) 0066 R(J)=R(J)+I.G(I) 0067 T(J)=T(J)+G(I) 0068 SX(I)=SX(I)**2/G(I)) 0069 46 CONTINUE C064 SX(I)=SX(I)/*C(I) 0065 SX(I)=SX(I)/*C(I) 0066 SX(I)=SX(I)/*C	0044		5,17,2		
$\begin{array}{cccc} -MINO(1+1N(17)/12+1N(17)/16,3) \\ C & SUMMATION OF LEADERS NAMED. \\ 0048 & D0 40 J=1,56,4 \\ 0049 & 40 IF(AM(J).NE.UN) & V=V+1. \\ 0050 & GO TO 43 \\ COS1 & 41 LC=MINO(1+(IN(17)-5)/4,3) \\ 0052 & D0 42 J=4,10 \\ 0053 & AC=IN(J)/2 \\ 0054 & 42 V=V+AD \\ 0055 & 43 M=((L-1)*NB*NC + (LB=1)*NC + LC) * 2 - 15/I \\ 0056 & SX(M)=SX(M)+V \\ 0057 & SQ(M)=SX(M)+V*2 \\ 0058 & G(M)=G(M)+I \\ 0059 & 44 CCNTINUE \\ 0059 & 44 CCNTINUE \\ 0059 & 44 CCNTINUE \\ 0064 & IF(G(1)-LST \\ 0064 & IF(G(1)-LST \\ 0066 & R(J)=R(J)+I./G(II) \\ 0066 & R(J)=R(J)+I./G(II) \\ 0066 & R(J)=R(J)+I./G(II) \\ 0066 & R(J)=R(J)+I./G(II) \\ 0067 & T(J)=F(J)+I./G(II) \\ 0067 & T(J)=F(J)+I./G(II) \\ 0069 & 46 CONTINUE \\ C & SET PARAMETERS AND DEGREES OF FREEDDM. \\ 0071 & AN = NA \\ 0072 & BN = NB \\ COT3 & CN = NC \\ COT4 & D(2) = TN - 1.0 \\ 0075 & O(3) = AN - 1.0 \\ 0076 & D(4) = D(3) * D(4) \\ COT8 & D(4) = D(4) + D(5) \\ C & COT4 & D(4) = D(5) \\ C & COT4 & D(4) + D(5) \\ C & COT4 & D(4) \\ C & COT4 & D(5) \\ C & COT4 $	0045	V=0.			
C SUMMATION OF LEADERS NAMED. D0 40 D0 40 J=1,56,4 0049 40 IF(AM(J).NE.UN) V=V+1. 0050 G0 T0 43 C051 41 LC=MIN011+(IN(17)-5)/4,3) 0052 D0 42 J=4,10 AC=INUJ/2 0053 AC=INUJ/2 0054 42 V=V+AD 0055 43 M=(LLA-1)*NE*NC + (LB-1)*NC + LC) * 2 - 15/I 0056 SX(M)=SX(M)+V 0057 SQ(M)=SQ(M)+V*22 0058 G(M)=SQ(M)+V*22 0058 G(M)=SQ(M)+V*22 0058 G0 T0 30 0061 45 CONTINUE 0060 G0 T0 30 0061 45 CONTINUE 0062 D0 46 I=1,LAST 0063 J=I-((I-1)/2)*2 0064 IF(G(I).EQ.0.GO T0 46 C065 w(J)=W(J)+(SQ(I)=SX(I))*2/G(I)) 0066 R(J)=R(J)+1./G(I) 0066 SX(I)=SX(I)/G(I) 0067 T(J)=T(J)+G(I) 0068 SX(I)=SX(I)/G(I) 0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB C073 CN = NC C074 D(2) = TN - 1.0 0075 D(3) = AN - 1.0 0076 D(4) = BN - 1.0 0077 D(5) = CN - 1.0 0078 D(6) = D(3) * D(4) 0079 D(7) = D(3) * D(4)	C046	IF(1.EQ.1	7) GO TO 41		
0046D0 40 J=1,55,4 0049 40 IF(AM(J).NE.UN)V=V1. 0050 G0 TO 43 $C051$ 41 LC=M(N0(1+([N(17)-5)/4,3)) 0052 D0 42 J=4,10 0053 AC=IN(J)/2 0054 42 V=V+AD 0055 43 M=((LA=1)*NB*NC + (LB=1)*NC + LC) * 2 - 15/I 0056 SX(M)=SX(M)+V*2 0057 SQ(M)=SQ(M)+V*2 0058 G(M)=G(M)+1. $C059$ 44 CCNTINUE 0060 G0 TO 30 0061 45 CONTINUE 0064 IF(G(1).EQ.0.) GO TO 46 $C065$ W(J)=W(J)+(SQ(1)-SX(1)*2/G(I)) 0064 IF(G(1).EQ.0.) GO TO 46 $C065$ W(J)=K(J)+(/G(I)) 0066 SX(I)=SX(I)/G(I) 0066 SX(I)=SX(I)/G(I) 0066 SX(I)=SX(I)/G(I) 0070 TN = NT 0071 AN = NA 0072 BN = NB $C073$ CN = NC 0074 D(2) = TN - 1.0 0075 D(3) = AN - 1.0 0076 D(6) = D(3) * D(4) 0076 D(6) = D(3) * D(4) 0076 D(6) = D(3) * D(4)	/0047	LC=MINO()	+IN(17)/12+IN(17)/16,3	3)	
0046D0 40 J=1,55,4 0049 40 IF(AM(J).NE.UN)V=V1. 0050 G0 TO 43 $C051$ 41 LC=M(N0(1+([N(17)-5)/4,3)) 0052 D0 42 J=4,10 0053 AC=IN(J)/2 0054 42 V=V+AD 0055 43 M=((LA=1)*NB*NC + (LB=1)*NC + LC) * 2 - 15/I 0056 SX(M)=SX(M)+V*2 0057 SQ(M)=SQ(M)+V*2 0058 G(M)=G(M)+1. $C059$ 44 CCNTINUE 0060 G0 TO 30 0061 45 CONTINUE 0064 IF(G(1).EQ.0.) GO TO 46 $C065$ W(J)=W(J)+(SQ(1)-SX(1)*2/G(I)) 0064 IF(G(1).EQ.0.) GO TO 46 $C065$ W(J)=K(J)+(/G(I)) 0066 SX(I)=SX(I)/G(I) 0066 SX(I)=SX(I)/G(I) 0066 SX(I)=SX(I)/G(I) 0070 TN = NT 0071 AN = NA 0072 BN = NB $C073$ CN = NC 0074 D(2) = TN - 1.0 0075 D(3) = AN - 1.0 0076 D(6) = D(3) * D(4) 0076 D(6) = D(3) * D(4) 0076 D(6) = D(3) * D(4)	1	C SUMMATION OF	LEADERS NAMED.		
$\begin{array}{llllllllllllllllllllllllllllllllllll$	0048			the second se	
0050 $GO TO 43$ 0051 $41 LC = MI NO(1+(IN(17)-5)/4,3)$ 0052 $DO 42 J = 4,10$ 0053 $AC = IN(J)/2$ 0054 $42 V = V + AD$ 0055 $43 M = ((LA - 1)*NB *NC + (LB - 1)*NC + LC) * 2 - 15/I$ 0056 $SX(M) = SX(M) + V$ 0057 $SQ(M) = SQ(M) + V**2$ 0058 $G(M) = G(M) + 1.$ 0055 $44 CCNTINUE$ 0056 $GO TO 30$ 0061 $45 CONT INUE$ 0064 $J = I - (I - 1)/2 1*2$ 0056 $W(J) = W(J) + (SQ(1) - SX(I) * 2/G(I))$ 0066 $R(J) = R(J) + 1./G(I)$ 0066 $R(J) = R(J) + 1./G(I)$ 0066 $R(J) = R(J) + 1./G(I)$ 0067 $T(J) = T(J) + G(I) + SX(I) * 2/G(I))$ 0066 $SX(I) - SX(I) / G(I)$ 0067 $T(J) = T(J) + G(I) + SX(I) * 2/G(I))$ 0070 $TN = NT$ 0071 $AN = NA$ 0072 $BN = NB$ $CO73$ $CN = NC$ 0074 $O(2) = TN - 1.0$ 0075 $O(3) = AN - 1.0$ 0076 $D(4) = BN - 1.0$ 0077 $D(5) = CN - 1.0$ 0078 $D(6) = D(3) * D(4)$ 0074 $D(2) = TN - 1.0$ 0075 $D(3) = A 0(4)$ 0076 $D(4) = BN - 1.0$				and the second	
C051 41 LC=MINO(1+(IN(17)-5)/4,3) O052 D0 42 J*4,10 O053 AC=IN(J)/2 U054 42 V=V+AD O055 43 M=((LA-1)*NB *NC + (LB-1)*NC + LC) * 2 - 15/I O056 SX(M)=SX(M)+V U057 SQ(M)=SQ(M)+V**2 O058 G(M)=G(M)+1. C055 44 CCNTINUE U060 G0 T0 30 O061 45 CONTINUE C062 D0 46 I=1,LAST U063 J=I-((I-1)/2)*2 U064 IF(G(1),EQ.0.) GO T0 46 C065 W(J)=K(J)+(SQ(1)-SX(1)**2/G(1)) U066 R(J)=R(J)+(SQ(1)-SX(1)**2/G(1)) U066 X(J)=R(J)+(SQ(1)-SX(1)**2/G(1)) U066 X(J)=R(J)+(J)(S(1)-SX(1)**2/G(1)) U066 CSET PARAMETERS AND DEGREES OF FREEDOM. U070 TN = NT U071 AN = NA U072 BN = NB C073 CN = NC C074 D(2) = TN - 1.0 U075 D(3) = AN - 1.0 U076 D(4) = BN - 1.0 U077 D(5) = CN - 1.0 U078 D(6) = D(3) * D(4) U079 D(7) = D(3) * D(5)					
0052 $D0 42 J=4, 10$ 0053 $AC=TN(J)/2$ 0054 $42 V=V4D$ 0055 $43 M=((LA-1)+NB+NC + (LB-1)+NC + LC) + 2 - 15/I$ 0056 $SX(M)=SQ(M)+V+2$ 0057 $Q(M)=SQ(M)+V+2$ 0058 $G(M)=G(M)+V+2$ 0058 $G(M)=G(M)+V+2$ 0056 $G(M)=G(M)+V+2$ 0056 $G(M)=G(M)+V+2$ 0056 $G(M)=G(M)+V+2$ 0056 $G(M)=G(M)+V+2$ 0056 $G(M)=G(M)+V+2$ 0056 $G(M)=G(M)+V+2$ 0057 $G(M)=G(M)+V+2$ 0056 $G(M)=G(M)+V+2$ 0056 $G(M)=G(M)+V+2$ 0056 $J=1-((1-1)/2)+2$ 0056 $J=1-((1-1)/2)+2$ 0056 $K(J)=R(J)+1, G(I)$ 0056 $R(J)=R(J)+1, G(I)$ 0057 $T(J)=T(J)+G(I)$ 0058 $Q(I)=G(I)$ 0059 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 $TN = NT$ 0071 $AN = NA$ 0072 $BN = NB$ 0073 $CN = NC$ 0074 $D(2) = TN - 1.0$ 0075 $D(3) = AN - 1.0$ 0076 $D(4) = SN - 1.0$ 0077 $D(5) = CN - 1.0$ 0078 $D(6) = D(3) + D(4)$ 0077 $D(3) = C(3) + D(4)$ 0076 $D(4) = S(M) + D(4)$ </th <th></th> <th></th> <th>+(IN{17}-51/4.3)</th> <th></th> <th></th>			+(IN{17}-51/4.3)		
0053 $AC = IN(J)/2$ 0054 42 0055 43 $M = (LA - I) *NB *NC + (LB - I) *NC + LC) * 2 - 15/I0056SX(M) = SX(M) + V * * 20057SQ(M) = SQ(M) + V * * 20058G(M) = G(M) + I +0059440059440060GO0054GO0061450061450061450061450061450061450064IF(G(1) + I + I + I) = 00064IF(G(1) + I) + (SQ(1) - SX(1) * * 2/G(1))0066R(J) = R(J) + 1 + /G(I)0066R(J) = R(J) + 1 + /G(I)0066SX(I) = SX(I) / G(I)0069460071AN = NA0070TN = NT0071AN = NA0072BN = NB0073CN = NC0074O(2) = TN - 1.00075O(3) = AN - 1.00076D(4) = BN - 1.00077O(5) = CN - 1.00078D(6) = D(3) * D(4)$					
0054 $42 \ V = V + AD$ 0055 $43 \ M = ((LA - 1) * NB * NC + (LB - 1) * NC + LC) * 2 - 15/I$ 0056 $SX(M) = SX(M) + V$ 0057 $SQ(M) = SQ(M) + V * 22$ 0058 $G(M) = G(M) + 1$. 0059 $44 \ CONTINUE$ 0060 $GO \ TO \ 30$ 0061 $45 \ CONTINUE$ 0063 $J = I - ((I - 1)/2) * 2$ 0064 $IF(G(1) \cdot EQ \cdot 0 \cdot) \ GO \ TO \ 46$ 0064 $IF(G(1) \cdot EQ \cdot 0 \cdot) \ GO \ TO \ 46$ 0066 $R(J) = R(J) + I \cdot /G(I)$ 0066 $R(J) = R(J) + I \cdot /G(I)$ 0066 $SX(I) = SX(I) / G(I)$ 0067 $T(J) = T (J) + G(I)$ 0068 $SX(I) = SN - 1 \cdot 0$ 0072 $BN = NB$ 0074 $D(2) = TN - 1 \cdot 0$ 0075 $D(3) = AN - 1 \cdot 0$ 0076 $D(4) = BN - 1 \cdot 0$ 0077 $D(5) = CN - 1 \cdot 0$ 0078 $D(6) = D(3) * D(5)$,	•
0055 $43 \ M = ((LA-1)*NB*NC + (LB-1)*NC + LC) * 2 - 15/I$ 0056 $SX(M) = SX(M) + V$ 0057 $SQ(M) = SX(M) + V**2$ 0058 $G(M) = G(M) + 1$. 0059 $44 \ CCNTINUE$ 0060 $GO \ TO \ 30$ 0061 $45 \ CONTINUE$ 0062 $D0 \ 46 \ I = 1, LAST$ 0063 $J = 1 - ((I - 1)/2)*2$ 0064 $IF(G(T) = E0.0.) \ GO \ TO \ 46$ 0065 $W(J) = W(J) + (SQ(T) - SX(T)**2/G(T))$ 0066 $R(J) = R(J) + 1./G(T)$ 0067 $T(J) = T(J) + G(T)$ 0068 $SX(T) = SX(T)/G(T)$ 0069 $46 \ CONTINUE$ C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 $TN = NT$ 0071 $AN = NA$ 0072 $BN = NB$ $C073$ $CN = NC$ 0075 $D(2) = TN - 1.0$ 0075 $D(3) = AN - 1.0$ 0077 $D(5) = SN - 1.0$ 0078 $D(6) = D(3) * D(5)$			2		
0056 $SX(M) = SX(M) + V$ 0057 $SQ(M) = SQ(M) + V + * 2$ 0058 $G(M) = G(M) + 1$.0059440051 $G(T)$ 300061450052 $G(T)$ 300063 $J = I - (I - 1)/2 + 2$ 0064 $IF(G(1) - EQ.O.) GO TO 46$ 0065 $W(J) = W(J) + (SQ(I) - SX(I) + * 2/G(I))$ 0066 $R(J) = R(J) + 1./G(I)$ 0067 $T(J) = T(J) + G(I)$ 0068 $SX(I) = SX(I)/G(I)$ 0069460070 $TN = NT$ 0071 $AN = NA$ 0072 $BN = NB$ 0073 $CN = NC$ 0074 $D(2) = TN - 1.0$ 0075 $D(3) = AN - 1.0$ 0076 $D(4) = BN - 1.0$ 0077 $D(5) = CN - 1.0$ 0078 $D(6) = D(3) * D(5)$				$c_{1} \pm 2 = 15/1$	
0057 $SQ(M) = SQ(M) + V * * 2$ 0058 $G(M) = G(M) + 1.$ 0059 44 CONTINUE 0060 GO TO 30 0061 45 CONTINUE $C062$ $DO 46$ I=1,LAST 0063 $J = I - ((I - 1)/2) * 2$ 0064 $IF(G(1) + EQ.0.)$ GO TO 46 $C065$ $w(J) = w(J) + (SQ(1) - SX(I) * * 2/G(I))$ 0066 $R(J) = R(J) + I.G(I)$ 0066 $R(J) = R(J) + I.G(I)$ 0067 $T(J) = T(J) + G(I)$ 0068 $SX(I) - SX(I) / S(I)$ 0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 $TN = NT$ 0071 $AN = NA$ 0072 $BN = NB$ $C073$ $CN = NC$ $C074$ $D(2) = TN - 1.0$ 0075 $D(3) = AN - 1.0$ 0076 $D(4) = BN - 1.0$ 0077 $D(5) = CN - 1.0$ 0078 $D(6) = D(3) * D(4)$ $C074$ $D(2) = TN - 1.0$					
0058 $G(M) = G(M) + 1.$ 0059 44 CCNTINUE 0060 GO TO 30 0061 45 CONTINUE 0062 DO 46 I=1,LAST 0063 J=1-((I-1)/2)*2 0064 IF(G(I)=SX(I)**2/G(I) 0065 W(J)=W(J)+(SQ(I)=SX(I)**2/G(I)) 0066 R(J)=R(J)+1./G(I) 0066 R(J)=R(J)+1./G(I) 0066 SX(I)=SX(I)/G(I) 0067 T(J)=T(J)+G(I) 0068 SX(I)=SX(I)/G(I) 0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB C073 CN = NC 0074 D(2) = TN - 1.0 0075 D(3) = AN - 1.0 0076 D(4) = BN - 1.0 0077 D(5) = CN - 1.0 0078 D(6) = D(3) * D(4) 0079 D(7) = D(3) * D(4)					
0059 44 CONTINUE 0060 GO TO 30 0061 45 CONTINUE 0062 DO 46 I=1,LAST 0063 J=I-((I-1)/2)*2 0064 IF(G(I).EQ.0.) GO TO 46 0065 w(J)=w(J)+(SQ(I)-SX(I)**2/G(I)) 0066 R(J)=R(J)+1./G(I) 0067 T(J)=T(J)+G(I) 0066 SX(I)=SX(I)/G(I) 0067 T(J)=T(J)+G(I) 0067 T(J)=T(J)+G(I) 0066 SX(I)=SX(I)/G(I) 0067 T(J)=T (J)+G(I) 0066 SX(I)=SX(I)/G(I) 0067 T(J)=T (J)+G(I) 0067 SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB 0073 CN = NC 0074 D(2) = TN - 1.0 0075 D(3) = AN - 1.0 0076 D(4) 0078 D(6) = D(3) * D(4) 0079 D(7) = D(3) * D(5)					
0060 GO TO 30 0061 45 CONTINUE $C062$ $00.46.1=1,LAST$ 0063 $J=1-((I-1)/2)*2$ 0064 IF(G(1).EQ.0.) GO TO 46 $C065$ $W(J) = W(J) + (SQ(1) - SX(I) * * 2/G(I))$ 0066 $R(J) = W(J) + (SQ(I) - SX(I) * * 2/G(I))$ 0066 $R(J) = W(J) + 1./G(I)$ 0067 $T(J) = T(J) + G(I)$ 0067 $SX(I) = SX(I)/G(I)$ 0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB $C074$ $O(2) = TN - 1.0$ 0075 $O(3) = AN - 1.0$ 0076 $D(4) = BN - 1.0$ 0077 $O(5) = CN - 1.0$ 0078 $D(6) = D(3) * D(4)$ $0(7) = D(3) * D(4)$ $D(5)$			(+L.)		
0061 45 CONTINUE C062 D0 46 I=1,LAST 0063 J=I-((I-1)/2)*2 0064 IF(G(I).EQ.O.) GO TO 46 C065 W(J)=W(J)*(SQ(I)-SX(I)**2/G(I)) 0066 R(J)=R(J)+1./G(I) 0067 T(J)=T(J)+G(I) 0068 SX(I)=SX(I)/G(I) 0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB C073 CN = NC C074 D(2) = TN - 1.0 0075 D(3) = AN - 1.0 0076 D(4) = BN - 1.0 0077 D(5) = CN - 1.0 0078 D(6) = D(3) * D(4) 0074 D(2) = CN - 1.0					
0046 $i=1, LAST$ 0063 $j=1-((i-1)/2)*2$ 0064 $IF(G(1), EQ.0.)$ GO TO 46 0065 $W(J) = W(J) + (SQ(1) - SX(I)**2/G(I))$ 0066 $R(J) = R(J) + 1./G(I)$ 0067 $T(J) = T(J) + G(I)$ 0067 $T(J) = T(J) + G(I)$ 0067 $T(J) = T(J) + G(I)$ 0067 $T(J) = SX(I) / G(I)$ 0067 $T(J) = SX(I) / G(I)$ 0067 $CIJ = SX(I) / G(I)$ 0066 $SX(I) = SX(I) / G(I)$ 0067 $COTIJ = SX(I) / G(I)$ 0069 46 CONTINUE C $SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB C073 CN = NC C074 D(2) = TN - 1.0 0075 D(3) = AN - 1.0 0076 D(6) = D(3) * D(4) 0078 D(6) = D(3) * D(4) 0074 D(2) = TN - 1.0$					
0063 $J=I-((I-1)/2)*2$ 0064 $IF(G(T) \cdot EQ.0.)$ GO TO 46 0065 $w(J) = w(J) + (SQ(T) - SX(I) * * 2/G(I))$ 0066 $R(J)=R(J)+I./G(I)$ 0067 $T(J)=T(J)+G(I)$ 0067 $T(J)=T(J)+G(I)$ 0067 $T(J)=T(J)+G(I)$ 0067 $T(J)=T(J)+G(I)$ 0067 $T(J)=T(J)+G(I)$ 0067 $T(J)=T(J)+G(I)$ 0066 $SX(I)=SX(I)/G(I)$ 0067 $CO7I(J)=SX(I)/G(I)$ 0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 $TN = NT$ 0071 $AN = NA$ 0072 $BN = NB$ $C073$ $CN = NC$ $C074$ $D(2) = TN - 1.0$ 0075 $D(3) = AN - 1.0$ 0076 $D(6) = D(3) * D(4)$ 0078 $D(6) = D(3) * D(4)$ 0074 $D(2) = D(3) * D(4)$					
0064 IFIG(T).EQ.O.) GO TO 46 C065 W(J)=W(J)+(SQ(T)-SX(I)**2/G(I)) 0066 R(J)=R(J)+1./G(I) 0067 T(J)=T(J)+G(I) 0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB C074 O(2) = TN - 1.0 0075 D(3) = AN - 1.0 C076 D(4) = BN - 1.0 0077 D(5) = CN - 1.0 0078 D(6) = D(3) * D(4) 0074 D(2) = TN - 1.0					
C065 $W(J) = W(J) + (SQ(I) - SX(I) * *2/G(I))$ $O066$ $R(J) = R(J) + 1./G(I)$ $O067$ $T(J) = T(J) + G(I)$ $C068$ $SX(I) = SX(II)/G(I)$ $O069$ 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. $O070$ $TN = NT$ $O071$ $AN = NA$ $O072$ $BN = NB$ $C073$ $CN = NC$ $C074$ $D(2) = TN - 1.0$ $O075$ $D(3) = AN - 1.0$ $O077$ $D(5) = CN - 1.0$ $O078$ $D(6) = D(3) * D(4)$ $C074$ $D(2) = TN - 1.0$				•	
0.066 $R(J) = R(J) + 1.76(I)$ 0.067 $T(J) = T(J) + G(I)$ 0.067 $SX(I) = SX(I) / G(I)$ 0.069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0.070 $TN = NT$ 0.071 $AN = NA$ 0.072 $BN = NB$ $C.073$ $CN = NC$ $C.074$ $D(2) = TN - 1.0$ 0.075 $D(3) = AN - 1.0$ 0.076 $D(4) = BN - 1.0$ 0.077 $D(5) = CN - 1.0$ 0.078 $D(6) = D(3) * D(4)$ 0.074 $D(2) = TN - 1.0$	0064				
0067 $T(J)=T(J)+G(I)$ 0066 $SX(I)=SX(I)/G(I)$ 0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB 0073 CN = NC 0075 D(3) = AN - 1.0 0075 D(4) = BN - 1.0 0077 D(5) = CN - 1.0 0078 D(6) = D(3) * D(4) 0074 D(2) = TN - 1.0					
C066 SX(I) = SX(I) / G(I) 0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB $C074$ $0(2) = TN - 1.0$ 0075 $0(3) = AN - 1.0$ $C076$ $D(4) = BN - 1.0$ 0077 $0(5) = CN - 1.0$ 0078 $D(6) = D(3) * D(4)$ $0(74$ $D(7) = D(3) * D(4)$	0066	R(J)=R(J)	+1./G(I)		
0069 46 CONTINUE C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT 0071 AN = NA 0072 BN = NB C073 CN = NC C074 D(2) = TN - 1.0 0075 D(3) = AN - 1.0 0077 D(5) = CN - 1.0 0078 D(6) = D(3) * D(4) C074 D(2) = TN - 1.0	0067	L) T=(L) T	+G(I)		
C SET PARAMETERS AND DEGREES OF FREEDOM. 0070 TN = NT N N N N 0071 AN = NA N N N N 0072 BN = NB C C N N N 0073 CN = NC C C C O	0066	SX(I)=SX(1)/G(1)		
D070 $TN = NT$ 0071 $AN = NA$ 0072 $BN = NB$ C073 $CN = NC$ C074 $D(2) = TN - 1 \cdot 0$ 0075 $D(3) = AN - 1 \cdot 0$ C076 $D(4) = BN - 1 \cdot 0$ 0077 $D(5) = CN - 1 \cdot 0$ 0078 $D(6) = D(3) * D(4)$ C074 $D(7) = D(3) * D(5)$	0069	46 CONTINUE			
D070 $TN = NT$ 0071 $AN = NA$ 0072 $BN = NB$ C073 $CN = NC$ C074 $D(2) = TN - 1 \cdot 0$ 0075 $D(3) = AN - 1 \cdot 0$ C076 $D(4) = BN - 1 \cdot 0$ 0077 $D(5) = CN - 1 \cdot 0$ 0078 $D(6) = D(3) * D(4)$ C074 $D(7) = D(3) * D(5)$		C SET PARAMETE	RS AND DEGREES OF FREE	EDOM .	
0071 $AN = NA$ 0072 $BN = NB$ $C073$ $CN = NC$ $C074$ $0(2) = TN - 1 \cdot 0$ 0075 $D(3) = AN - 1 \cdot 0$ $C076$ $D(4) = BN - 1 \cdot 0$ 0077 $D(5) = CN - 1 \cdot 0$ 0077 $D(5) = CN - 1 \cdot 0$ 0078 $D(6) = D(3) * D(4)$ $C074$ $D(7) = D(3) * D(5)$	0070				
0072 $BN = NB$ $C073$ $CN = NC$ $C074$ $0(2) = TN - 1 \cdot 0$ 0075 $0(3) = AN - 1 \cdot 0$ $C076$ $D(4) = BN - 1 \cdot 0$ 0077 $D(5) = CN - 1 \cdot 0$ 0078 $D(6) = D(3) * D(4)$ $C079$ $D(7) = D(3) * D(5)$	0071				
CC73 $CN = NC$ C074 $D(2) = TN - 1 \cdot 0$ 0075 $D(3) = AN - 1 \cdot 0$ C076 $D(4) = BN - 1 \cdot 0$ 0077 $D(5) = CN - 1 \cdot 0$ 0078 $D(6) = D(3) * D(4)$ C074 $D(7) = D(3) * D(5)$					
0(2) = TN - 1.0 0075 $D(3) = AN - 1.0$ 0076 $D(4) = BN - 1.0$ 0077 $D(5) = CN - 1.0$ 0078 $D(6) = D(3) * D(4)$ 0079 $D(7) = D(3) * D(5)$	-				
0075 $D(3) = AN - 1.0$ $C076$ $D(4) = BN - 1.0$ 0077 $D(5) = CN - 1.0$ 0078 $D(6) = D(3) * D(4)$ $C074$ $D(7) = D(3) * D(5)$			1 - 1.0		
C076 $D(4) = BN - 1.0$ 0077 $D(5) = CN - 1.0$ 0078 $D(6) = D(3) * D(4)$ $C079$ $D(7) = D(3) * D(5)$					
0077 $D(5) = CN - 1.0$ 0078 $D(6) = D(3) * D(4)$ $C079$ $D(7) = D(3) * D(5)$					
0078 D(6) = D(3) * D(4) C079 D(7) = D(3) * D(5)					
0079 $0(7) = 0(3) * 0(5)$					
				•	
	0080	U(8) = D	(4) * 0(2)		

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0081		с ве		= D(3) * D(8) Alyses of dependent variables	
008 Z				0 N = 1.NV	
0083				M(N) .LT. 2.0) GO TO 60	
0084				55. N	
0085		54		T (31H1INSUFFICIENT DATA FOR	VARTABLE, 13)
C086		-	GOT		
0087		60	CONT		
0088				I=1,10	
0089				<i>z</i> 0.0	
0090				= 0.0	
0091				± 0.0	
0092				= 0.0	
0093				J = 1,10	
0094				J = 0.0	
0095				J) = 0.0	
0096		65		J = 0.0	
0097				= T(N) - 1.0	•
0098		*		= T(N) - TN	
0070		c co		1-SCORE-PER-CELL ANALYSIS AND	CELL MEANS.
0099				F = 1.NA	
0100				J = 1 + NB	ί.
0101				K = 1, NC	
0102				-1) +NB+NC+(J-1) +NC+K) +NV-(NV-	N)
0103				$J_{+}K) = G(M)$	
0104				= S(2) + SX(H) ++2	
0105		`		= A(I) + SX(M)	
0106				= B(J) + SX(M)	
0107				= C(K) + SX(M)	• · · · · · · · · · · · · · · · · · · ·
0108				J) = AB(I,J) + SX(M)	
0109				KI = AC(I,K) + SX(M)	
0110				K = BC(J,K) + SX(M)	
0111		70		+ J+ K) = SX(M)	
0112				I = 1.NA	
0113				= S(3) + A(I) + 2 / (BN + CN)	
0114				= A(I) / (BN + CN)	
0115			00 75	J = 1, NB	
0116				= S(6) + AB(I,J)++2 / CN	
0117		7		$J) = AB(I_{+}J) / CN$	
0118				K = 1, NC	
0119			S(7)	= S(7) + AC(I,K)++2 / BN	
0120		80	ACII	$KI = AC(I_{+}K) / BN$	•
0121			DO 81	J = 1, NB	
0122			S(4)	= S(4) + B(J) + 2 / (AN + CN)	
0123			B(J)	= B(J) / (AN + CN) .	· .
0124			DO 85	K = 1,NC	
0125			S(8)	= S(8) + BC(J,K)++2 / AN	
0126		85	5 BC(J	K) = BC(J+K) / AN	
0127			CF =	0.0	
0128				K = 1, NC	
0129				CF + C(K)	
0130				= S(5) + C(K)**2-/ (AN * BN)	
0131		90		= C(K) / (AN * BN)	
0132				CF * CF / TN	
		C AC		UMS OF SQUARES AND COMPLETE C	OMPUTATION.
0133				I = 2,9	
0134		95		= (S(I) - CF) $=$ TN / R(N)	
0135			S(6)	= S(6) - S(3) - S(4)	
				•	

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FORTRAN	IV G I	LEVEL	21	MAIN	DATE = 73143	13/52/45
0136			5(7) -	S(7) = S(3) = S(5)		
0137				S(8) - S(4) - S(5)		
0138				S(2) - S(3) - S(4) - S(4)	51 - 5(6) - 5(7) - 5(8)	
0139			S(10) =			
0140				5(2) + S(10)		
	· · · (C CON	IVERT SU	IS OF SQUARES TO MEAN S	QUARES .	
0141			DO 100	(= 1,10		
0142			IF (D(I	.GT. 0.0) S(I) = S(I)	/ D(I)	
0143		1.00	CONTI NU			
	1			ATIOS AND PROBABILITIE	¢.	
0144	```		DO 105		J•	
-						
0145				S([) / S(10)		1
0146				PRBF(D(I), D(10), F(I))		
		C PRI	INT SOUR	CE TABLE AND RELEVANT C	ELL MEANS.	
0147			PRINT 1	LO, N, (S(I), D(I), I =	1,3), F(3), P(3), S(4),	D(4), F(4),
		1	P(4)			
0148		1100	FORMAT	(///21H ANALYSIS OF VAR	IABLE, IB // TH SOURCE, 1	6X, 4HM.S.,
					, 1HP // 6H TOTAL, F21.3,	
					1HA, F23.3, F10.0, 2F12	
				B F23.3. F10.0. 2F12.4		•• •
0149				GT. 1) PRINT 115, S(5)		/
0150		115		(3X, 1HC, F23.3, F10.0,		
0151			PRINT 12	20, S(6), D(6), F(6), P	(6)	
0152		120	FORMAT	3X, 2HAB, F22.3, F10.0	• 2F12.4)	
0153			IF (NC	GT. 1) PRINT 125. (S(I), D(I), F(I), P(I), I =	7, 9)
0154		1250			, 2F12.4 / 3X, 2HBC, F22.	
				2F12.4 / 3X. 3HABC. F2		• - •
0155		•		30. S(10). D(10)		
0156		120			0.0 /// 23H MEANS FOR ALL	FEECTS . 1
		1.20				. EFFECTS
0157				TS (A, NA, 1, 4HA MN, N		
0158				TS (B, NB, 1, 4HB MN, N		
0159				GT. 1) CALL PRTS (C, N		
0160			CALL PR	IS (AB, NA, NB, 4HA+B ,	ND }	
C161			IF (NC	EQ. 1) GO TO 150		
0162			CALL PRI	TS (AC, NA, NC, 4HA+C ,	ND I	
0163				S (BC, NB, NC, 4HB+C ,		
0164			PRINT 1			
0165		135		// 31H CELL MEANS. BLO	*** * C + EVEL \$. 1	
0166		133		$K = 1 \cdot NC$		
0167			DO 140 1			
0168		• • •		J = 1, NB	•	
0169				= ABC(I, J, K)		
0170				TS (AB, NA, NB, 4HAB ,	NDI	
0171		150	IF (ZM(() .EQ. 0.0) GO TO 152		
	. C	C PRI	NT CELL	N MATRIX.		·
0172			PRINT 1			
0173				1// 38H SUBJECTS PER CEL	1. BLOCKS = C (EVELS.)	
0174			DD 165 I			
-				I = 1, NA		
0175						
0176			DO 160 .			
0177				= GN(I+J+K)		
0178				IS (AB, NA, NB, 4HAB ,	NDJ	
0179		170	CONTINUE			
0180			STOP			
0181			END			
-						

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0001SUBROUTINE PRTS (X, N, M, KH, ND)CPRINT A MATRIX OR VECTOR IN 10-COLUMN PARTITIONS.C X = ARRAY TO BE OUTPUT.C N = NUMBER OF ROWS (OR ELEMENTS) OF X TO BE PRINTED.C M = NUMBER OF COLUMNS OF X TO BE PRINTED.C M = NUMBER OF COLUMNS OF X TO BE PRINTED.C KH = NAME OF ARRAY FOR OUTPUT HEADING, A HOLLERITHC CONSTANT IN THE CALL STATEMENT, MAX. = 6 CHARACTERS.C ND = NUMBER OF ROWS (OR ELEMENTS) DIMENSIONED FOR X IN THEC CALLING PROGRAM.CC0003004PRINT 15005006J = MINO(I + 9, N)007PRINT 5, KH, (K, K = I,J)0085 FORMAT (/A7, 10111)00900100120002003004PRINT 15, (X(K,1), K = I,J)005006J = MINO(K + 9, N)001220002003004PRINT 15005006007PRINT 15, (X(K,1), K = I,J)0080190101001101111011120131141141151152153154154155154155156156157158158159159150150 </th <th>FORTRANIIV</th> <th>GLEVEL</th> <th>21</th> <th>PRITS</th> <th>DATE =</th> <th>73143</th> <th>13/52/45</th>	FORTRANIIV	GLEVEL	21	PRITS	DATE =	73143	13/52/45
C PRINT A MATRIX OR VECTOR IN 10-COLUMN PARTITIONS. C $X = ARRAY TO BE OUTPUT.$ C $N = NUMBER OF ROWS (OR ELEMENTS) OF X TO BE PRINTED. C M = NUMBER OF COLUMNS OF X TO BE PRINTED. C SET = 1 IF X IS VECTOR.C KH = NAME DF ARRAY FOR OUTPUT HEADING, A HOLLERITH C CONSTANT IN THE CALL STATEMENT, MAX. = 6 CHARACTERS. C ND = NUMBER OF ROWS (OR ELEMENTS) DIMENSIONED FOR X IN THE C CALLING PROGRAM. C 0002 01 MENSION X(ND, M) 0003 1F (M .GT. 1) GD TO 20 0004 PRINT 15 0005 DO 10 I = 1,N,10 0008 5 FORMAT (/A7, 10111) 0009 10 PRINT 5, KH, (K, K = I,J) 0008 5 FORMAT (/A7, 10111, K) 0010 015 FORMAT (/A7, 10711.4) 0011 RETURN 0015 PRINT 5, KH, (J, J = K,L) 0016 00 25 I = 1,N 0017 25 PRINT 30, I, (X(I,J), J = K,L) 0018 30 FORMAT (/16, 4X, 10F11.4) RETURN$	0001	<u> </u>	SUBROUTINE PRTS	(X, N, M, KH, N	(0)	е. Т.	
C X = ARRAY TO BE OUTPUT. C N = NUMBER OF ROWS (OR ELEMENTS) OF X TO BE PRINTED. C M = NUMBER OF COLUMNS OF X TO BE PRINTED. C SET = 1 IF X IS VECTOR. C KH = NAME DF ARRAY FOR OUTPUT HEADING, A HOLLERITH C CONSTANT IN THE CALL STATEMENT, MAX. = 6 CHARACTERS. C ND = NUMBER OF ROWS (OR ELEMENTS) DIMENSIONED FOR X IN THE C CALLING PROGRAM. C 0002 01 MENSION X(ND, M) 0003 IF (M .GT. 1) GD TO 20 0004 PRINT 15 0005 D 0 1 0 I = 1,N,10 0006 J = MINO(I + 9, N) 0007 PRINT 5, KH, (K, K = I,J) 0008 5 FORMAT (/A7, 10[1]) 0009 10 PRINT 15, (X(K,1), K = I,J) 0010 15 FORMAT (10X, 10F11.4) RETURN 0012 20 D0 25 K = 1,M,10 PRINT 5, KH, (J, J = K,L) 0015 O 25 I = 1,N 0017 25 PRINT 30, I, (X(I,J), J = K,L) 0018 30 FORMAT (/16, 4X, 10F11.4) RETURN					UNN PARTETION	s.	
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C CALL ING PROGRAM. C OOO2 DIMENSION X(ND, M) OOO3 IF (M .GT. 1) GD TD 20 OOO4 PRINT 15 OOO5 DO 10 I = 1,N,10 OOO6 J = MINO(I + 9, N) OOO7 PRINT 5, KH, (K, K = I,J) OOO8 5 FORMAT (/A7, 10[11) OO09 10 PRINT 15, (X(K,1), K = I,J) OO10 15 FORMAT (10X, 10F11.4) RETURN OO12 20 DO 25 K = 1,M,10 OO13 PRINT 5, KH, (J, J = K,L) OO14 L = MINO(K + 9, M) PRINT 5, KH, (J, J = K,L) OO15 PRINT 5, KH, (J, J = K,L) OO16 OO FORMAT (/I6, 4X, 10F11.4) NO15 OC S I = 1,N OO17 25 PRINT 30, I, (X(I,J), J = K,L) OO18 OO FORMAT (/I6, 4X, 10F11.4) PRINT 5, KH, (J, J = K,L) OO19 RETURN		C	CONSTANT IN THE	CALL STATEMENT,	MAX. = 6 CHAP	ACTER S.	
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0018 30 FDRMAT (/I6, 4X, 10F11.4) 0019 RETURN		26		(1.1)			
0019 RETURN							
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FORTRAN	I۷	G	LEV	EL 21			cos			DA TE	=	73143		13/52/45
0001			r	S UB R	OUTINE CCDS	(KF,	кі, і	KJ, KK,	KL, M	(M)				
					ND PRINTS T							NTROL	CARD S.	÷
				. –	CTOR HOLDIN KK: KL: KM			-		LUKN	•			
			-	· –	MPOR ARY STO				RDUTIN	E.		:		
			c	BLANK I	ITLF CARD Y	TELDS	2108	•						
0002					NS. ION KF (20), кн	(20)							
0003 0004					5, KH AT (2044)									
0005				IF (KH(1) .EQ.									
0006 0007					10, KI, KJ AT (515 / 2		KL, I	KM, KF						
0008				PRIN	Т 15, КН, К	I, KJ								
0009					AT (1H1, 20 COL 6-10									
				2 15	/ 13H COL 2									•
0010				RETU END	RN									

	FORTRAN	I۷	G	LEVEL	21		PRBF		DATE =	73143		13
	0001			_	FUNCTION	PRBF (DA,	DB, FR)					
				C DA C DB C FR	■ NUMERA ■ DENOMI ■ F-RATI	ACT PROBABI FOR DEGREES NATOR DEGRE D TO BE EVAL JRNED AS A D	OF FREED ES OF FRE LUATED.	OM. EDOM.			F-RAT 10.	
	0002			•	PRBF = 1	. 0						
	0003					DB * FR .EG	0.0.0) R	ETURN				
	0004				IF (FR .	T. 1.0) GO	TO 5					
	0005				A = DA							
	0006				B = DB.					· ·		·
	0007				F = FR							
	0008				GO TO 10							
	0009			5	A = DB						1	
	0010				8 = CA							
	0011				F = 1.0							
	0012			10		/ {9.0 * A						
•	001 3					/ 19.0 * B						
	0014					(1.0 - 88)	* F**0.3	33333 -	1.0 + AA) / SQ	RT (88 * F	
				1		67 + AA 11						
	0015					r. 4.0) Z =						
	0016			,	PRBF = 0. . (0.00034	5 / (1.0 +	Z * (0.1 19527)))		Z * (0.11	5194	+ 2 +	
	0017			•		T. 1.0) PR		•				
	0018				RETURN							
	0019				END							

13/52/45

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VITA

Charles Allen Humphrey

Candidate for the Degree of

Doctor of Philosophy

Thesis: SOCIO-ECONOMIC STUDY OF SIX ALL-BLACK TOWNS IN OKLAHOMA

Major Field: Sociology

Biographical:

- Personal Data: Born in Marlin, Texas, July 19, 1934, the son of Mr. and Mrs. Zebedee Humphrey.
- Education: Graduated from Booker T. Washington High School, Marlin, Texas, May 29, 1953; received Bachelor of Arts degree in Psychology from Midwestern University in 1968; received Master of Arts degree in Sociology from Texas Tech University in 1970; completed requirements for the Doctor of Philosophy degree at Oklahoma State University in July, 1973.
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