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TENANCY AND THE DOMESTIC DOMAIN: FERTILITY AND HOUSEHOLD ORGANIZATION AMONG POSTBELLUM MISSISSIPPI TENANT FARMERS

By

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ABSTRACT

TENANCY AND THE DOMESTIC DOMAIN: FERTILITY AND HOUSEHOLD ORGANIZATION AMONG POSTBELLUM MISSISSIPPI TENANT FARMERS

By

Kim Arbogast McBride

This dissertation uses household-level data from a late nineteenth to early twentieth century rural community in northeastern Mississippi to examine relationships among household structure, fertility, and tenant farming. Theories of proto-industrialization and semi-proletarianization are used as analogies to postbellum Southern tenancy, which resembled proto-industrial societies in its attenuated control of basic resources; intensification of labor due to debts and the landlord's control of farming; and household-based organization of labor. Concepts such as the domestic mode of production are applied to relationships between Southern tenant households and the larger economy. These concepts are then used to examine intensification of both production and reproduction and their role in capital accumulation.

The data consists of a variety of documentary records. The main types of documents used are land deeds, chattel deeds, estate records, population and agricultural schedules from the federal census, and a private account ledger. The study was accomplished by a variety of methods. General historical research and reconstruction of landholding patterns and tenant-landlord relationships was used to provide a historical narrative of the study area. A series of demographic and agricultural data bases were constructed, and linked by each household. Analysis of the household focused on household composition, life cycle stage, and the position of persons within households. Analysis of marriage patterns and fertility was based upon calculation of a series of measures, including child-women ratios, children born per year of marriage, age-specific

fertility rates, indices of the level and character of fertility (m and M), and singulate mean age at marriage. The fertility analysis was supplemented by a sample of households from the nearby county seat town, in 1910. Analysis of the agricultural system was accomplished by summary statistics on wealth and crops.

Major findings include the differences in agricultural production according to tenure and race; a general similarity between black and white household structure but increasing nucleation over time; earlier age at marriage and of leaving the parental household for tenant farmers; and variations in the level of fertility and family limitation according to racial, tenure, and residential factors.

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Family and friends contributed incredible patience over the long haul of analysis and writing. Fellow students at Michigan State University were also important supporters. Colleagues at the University of Kentucky have also provided needed encouragement, as well as generous patience when dissertation obsessions lured me away from duties there. I especially thank family members Charles and Nora Arbogast and Beverley McBride for additional moral and physical support, including emergency funds for a final data collection and loan of a personal computer up to the heaviest number crunching. My husband Stephen McBride provided encouragement even while going through the same trials himself.

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LIST OF ABBREVIATIONS

Throughout the presentation of the data, especially in figures and tables, it has been necessary to use abbreviations. The most common abbreviations are listed below. It should also be noted that the term "black" has been used consistently throughout the dissertation. This choice was made on the basis of the general popularity of black, although other terms, such as African-American or Afro-American, are also appreciated.

blow	=	black owners
blre	=	black renters
blsh	=	black sharecroppers
whow	=	white owners
whre	=	white renters
whsh	=	white sharecroppers
ru	=	rural
ur	=	urban
fam	=	family
hh	=	household
c	=	consumers
w	=	workers
dratio	=	dependency ratio (c/w)
kid(s)	=	children
ch	=	children
mo	=	mother
fa	=	father
da	=	daughter
sis	=	sister
bro	=	brother
gr	=	grand
fert	=	fertility
mar(r)	=	marriage
yr	=	year

CHAPTER 1

INTRODUCTION

Introduction

This dissertation uses household-level data from a rural community in northeastern Mississippi to examine interrelationships between tenancy and demographic patterns. Recently, anthropologists have stressed the need for this kind of research. One example is W. Handwerker. Handwerker (1977:259), described family, fertility, and economies as "inextricably intertwined," but concluded that "despite intensive investigation, the interdependencies among these phenomena remain elusive." Recently David Kertzer (1985:103) pointed out the continuing lack of attention to "the centrality of political economic forces to the understanding of coresidential processes and household forms".

More specifically, the study focuses on relationships between household structure, fertility, and farming. Studies of fertility and of household composition are numerous, the latter especially by anthropologists. The household is the setting where processes of kinship, residence, and domestic production come together. While family, which extends beyond the bounds of residence, is also a key context for reproduction, the study of household structure allows many insights into the family (see Hammel 1984 or Wilk and Netting 1984 for recent anthropological consideration of the household).

There have been surprisingly few studies focusing on household composition and formation and other demographic differentials in relation to the organization of Southern society. This gap in the literature is especially significant because 19th century Southern cotton production, both under slavery and tenancy, made major contributions to the ascendency of the United States in a world economy. Katz and Stern have noted that historical studies of these issues can provide a case study of the relation between fertility and industrial society "that has implications for understanding similar processes at work today all over the world" (1980:229; see also Polgar 1972; Tilly 1978). Especially relevant is the articulation of semi-proletarianized households within a capitalistic economy, a prominent phenomenon today worldwide.

Questions of theory

Much past theorization concerning household structure and fertility falls under the rubric of modernization theory, and emphasizes the seemingly inevitable impacts of industrialization. Part of this consensus is demographic transition theory, which focuses on the shift from high to low mortality and natality (Caldwell 1976; Notestein 1945; Stolnitz 1964). Another part of modernization theory focuses on the nucleation of Western households (Goode 1963). These modernization theories have become so entrenched that well-documented empirical challenges have been ignored or rendered unintelligible. Challenges include 1) stable or rising fertility in some sectors and declining fertility in others during industrialization, 2) little association between the timing of industrialization and fertility decline, 3) a predominance of non-nuclear household forms in much of Eastern and Southern Europe, 4) a prominence of nuclear households in pre-industrial Western Europe, and 5) increasing, not decreasing, household complexity with industrialization (Hammel 1972; Laslett and Wall 1972; Kertzer 1984; Tietelbaum 1975; van de Walle and Knodel 1980; Wall 1983).

Dissatisfaction with modernization theory has led many researchers to consider alternatives that are more sensitive to the structural oppositions of different population segments, from local to global levels. Anthropologists have often been among those offering objections to the old consensus, on both empirical and theoretical grounds (Cowgill 1975; Nag 1980; Nardi 1981; Polgar 1971; Raulet 1970), and many of the challenges they have raised are especially appropriate to postbellum rural Southern fertility. Recent studies of the articulation of proto-industrial or semi-proletarian households within the market sector (Archetti 1984; Braun 1966; Levine 1977, 1984; Medick 1976; Smith et al 1984; Tilly 1978, 1984) have provided an alternative framework for interpreting high fertility among populations with reduced subsistence capabilities and increased dependence on early forms of wage labor. Except for the work of Stern (1983; also Katz and Stern 1980, 1981) on differential fertility in 19th and early 20th century Erie County, New York, this issue has received little attention in U.S. historical demography. However, the comparisons to the American South are especially appropriate. The cheap labor and regional differentiation (Wallerstein 1983) of proto-industrialization describes well the role of Southern agricultural production during the late 19th and early 20th century, when the U. S. was consolidating its central position within the world economy (Hacker 1970; Palmer 1984). The important, and some would say dependent (Woodward 1951) position of the American South within this development has long been noted but rarely approached on the level of the household or even the community.

Much of the Western experience, especially the decline of fertility during the later stages of industrial production and organization, are not appropriate as analogies or predictors for the less developed world today. The industrialization of the West involved complex, interconnected, endogenous processes. In contrast, many changes

occurring in less developed countries today are exogenously induced. Yet certain phases or settings in the historical experience of the West may hold insights for certain contemporary settings, especially those involving extremely rapid capital accumulation, or illuminate some contemporary cases of rising fertility. At the least, more detailed study of the Western experience should help raise significant questions to apply to contemporary settings.

Recent studies of proto-industrialization sometimes draw upon concepts like the corporate nature of the household and the domestic mode of production. The concept of the domestic mode of production, brought to the fore by Sahlins (1972), following the work of Chayanov (1966) and Wolf (1966), will be applied to relationships between Southern tenant households and the larger economy.

In the domestic mode of production, the household's goals center around reproducing culturally established patterns of life, with little emphasis on creating or maximizing economic returns or profits (Sahlins 1972). Work routines and intensities are tied to the family life cycle, and fluctuate with per capita consumption needs as household composition changes over time. In the proto-industrial setting, as in that of contemporary semi-proletarianization, the household-based domestic mode of production is articulated with a capitalist mode. The extra, non-compensated contributions of the entire corporate household allow for wages or other forms of compensation at levels otherwise insufficient for the maintenance and reproduction of labor, allowing for rapid capital accumulation. These processes of general labor intensification are usually set in motion by the loss of basic resources like land, which encourages an increase in wage labor and other forms of market production. Once dependent upon market production, falling wages or prices for finished goods can be used to encourage workers to intensify labor, especially in cases of little individual

control over the means of production. It is expected that data from Vinton farms and households will show that the composition of households influences the nature of farming, especially the intensity of farming, as measured in variables such as value of farm produce per acre or per worker. Especially important should be the number of persons of different ages, or the ratio of the number of persons in their most productive years to the number of persons less able to contribute labor, such as the extreme young and old. This ratio should change as household go through their life cycle. Those households with less control over their means of production, such as sharecroppers and renters, may show increased sensitivity to household compositional factors and the household life cycle. These expectations are based upon the assumption that off-farm labor is not an important event for most individuals, and that most farms were not able to generate significant income from means other than farming.

Capitalist production, given its competitive nature, is forced to seek out or create these types of settings. This is not a unique or temporary feature but rather an integral aspect of the modern economic system, now institutionalized through part-time employment, underemployment, low wages, and seasonal migration (often rural to urban) in large portions of the world. In the proto-industrial setting, losses of traditional resources and the general disruption of societies in place also broke the constraints of the European late marriage pattern (Hajnal 1982, 1965).

Postbellum Southern society was not strictly a classic proto-industrial settings. For example, Southern tenancy developed out of chattel slavery, a form of organization that was relatively rare worldwide in the 19th century. However, Southern society was characterized by attenuated control of basic resources such as land; general intensification of labor due to debts and the landlord's control of farming; and household-based organization of labor, with heavy reliance on the entire family's,

including children's labor. In these characteristics it was highly reminiscent of proto-industrial and semi-proletarian settings.

Households within Southern tenancy

Southern tenancy has often been viewed from the neo-classical perspective of positive adaptation to market risks. More important, however, are its location within the wake of a slave-based society, and the negotiations of newly freed blacks for more autonomous forms of farming. Complete land ownership and autonomy were the demonstrated goals of many freed blacks, although few managed to secure these goals. On the other hand, white landowners sought to retain their cultural and economic position over black laborers while diverting some production risks to them (Flynn 1983; Litwack 1979; Ransom and Sutch 1977; Sholomowitz 1979; Wharton 1965).

The crop-lien credit system upon which Southern tenancy was built was a compromise between the desires of white landowners and black laborers. Under this system, the tenant mortgaged the coming year's crop for the supplies to produce it. This system provided essentials like seed, tools, and other means (including food) to laborers who lacked them, and allowed for household-based farming. However, the tally at year's end often saw the tenant household in debt to the landlord or furnishing merchant. In many instances the buildup of debts crushed all hopes of farm ownership and provided landlords with a lever to persuade dissatisfied laborers to continue or to increase production.

This leverage was especially important to the extent that many farmers were operating under a domestic mode of production, regulated more by the inner needs and rhythms of the household than by market factors. It is assumed in this study that most

households could be characterized as following the domestic mode of production. Black women and children had largely withdrawn their labor from cotton production with the end of slavery and seemed hesitant to participate under the wage system; their labor was regained, however, with the development of household-based tenancy and the crop lien system of debt peonage (Allen 1975; Cox 1944; Jones 1985).

The choice of the household as the unit of analysis in this study is reinforced by the fact that newly freed slaves demonstrated their desire for a household-based form of production, having rejected the less autonomous gang and squad systems preferred by many landlords. Other studies have suggested that household size and composition was increasingly important in negotiating the coming year's contract and could influence farm size (Davis et al. 1965; Rosengarten 1974). It is expected that the study of Vinton will also show a positive relationship between household size and farm size. This expectation is based upon the assumption that most farm labor was provided by the household's members themselves, and not hired labor.

Landlords sometimes demanded set amounts of cotton from their tenants. Larger plots of land per tenant household could determine whether that tenant household was able to grow small amounts of subsistence crops in addition to their cotton, and thus reduce their reliance on the landlord or local merchant. As a result, tenants frequently pushed for larger plots. Conversely, landlords often tried to keep a tenant's acreage small, in order to put as many tenants as possible on their land and farm it more intensively.. In some cases, especially when cotton prices were low, landlords depended on the interests charged to tenants accounts as much as the profits from the agricultural produce, a practice called "farming the tenant." It is predicted that this study will show differences in crop-mixes and other strategies according to farm

size, household size, and household composition and life cycle, and that better situated households may grow less cotton and more subsistence crops.

Southern Historical Demography

This study also addresses fertility. Past researchers have documented the South's relatively high fertility (Coale and Rivers 1973; Coale and Zelnik 1963; Eblen 1974; Grabill, Kiser, and Whelpton 1958; Okun 1958; Rindfuss 1981). But few studies have been detailed enough to explain the distinctive patterns observed. Frequently, researchers assume that the rural nature of the South is sufficient explanation, without considering societal divisions and dynamics.

Postbellum black populations have especially been neglected, generally not included in large-scale national studies until the mid-twentieth century. Consequently, the decline of black fertility from 1880 to 1940 is not well understood (McFalls and Masnick 1981). Much earlier work is based on measures such as the child-woman ratio and cannot address issues like age-specific patterns of childbearing and family limitation.

The recent research of Tolnay (1987, 1986, 1985, 1984, 1983, 1981), especially his analysis of Southern fertility and land tenure in 1900, has begun to refine our understanding of Southern fertility. This work joins with that of Stern (1985) to apply more sophisticated methods and a concern for the dynamics of class relationships to historical U.S. populations. Both Tolnay and Stern (1985) apply the recent findings of European historical demographers to the United States. Tolnay's conclusions about fertility differentials within Southern populations arise from the similarities between Southern tenancy and the proto-industrial setting. These similarities include a lack of

incentives for the European pattern of late marriage given limited possibilities of land ownership. Quite the opposite, the household-based organization of labor and the ease of setting up a new tenant household created incentives for early marriage and reproduction, lessening the time between generations (Medick 1976). Claims that proto-industrialization directly increased marital fertility rates are more controversial. Some researchers suggest an indirect positive effect on fertility, as when intensification of work or changes in work routines caused a decrease in lactational ammenorhea (see Levine 1984, Tilly 1984).

Tolnay's demographic analysis of postbellum Southern populations supports his prediction regarding earlier marriage for tenants, and supports the comparison with the proto-industrial setting. Although his analysis showed less clear relationships between fertility and tenancy, Tolnay concluded, that "of overriding significance [in black demographic patterns] was the postbellum adoption of an agricultural organization which emphasized farm tenancy for blacks at the expense of farm ownership" (Tolnay 1984:306).

This dissertation extends Tolnay's county-level research to the household-level. It is predicted that land tenure will be an important variable in explaining fertility differences. More specifically, it is predicted that tenants will show an earlier age at marriage, and a slightly higher level of fertility. Although detailed analysis of age at marriage can only be carried out for one data set, 1910, it is predicted that there will be some indication of a general drop in age at marriage, perhaps through changes in household compositional. This expectation is based upon the assumption that tenancy increased in the study area over time. It is also assumed in this study that fertility is natural, or nearly natural, especially in the rural sample, and that these differences in fertility stem largely from increased exposure and not an increased pace of fertility

within marriage, according to tenure. It is predicted that these differences will hold for both the black and white samples.

Data and Methodology

The study area is the rural community of Vinton, Mississippi, which consisted of dispersed houses and farms and several country stores and churches. A few doctors and storekeepers in the white sample were the only occupations other than farming in Vinton. The temporal focus is 1880 to 1910. The beginning date of 1880 is sufficiently removed from emancipation to insure that the tenancy system was well-developed. The end date of 1910 is early enough to minimize changes associated with large scale rural to urban migration, which stepped up considerably after WWI, industrialization, or agricultural mechanization.

Data for this study consists of a variety of documentary records collected by the author. The main types of documents used are land deeds, chattel deeds, estate records, population and agricultural schedules from the federal census, and a private account ledger. Some of these data were collected in 1979 and 1980, as part of Michigan State University's Tombigbee Historic Townsites Project. This project used archaeology, oral history, and archival research to study three communities in Clay County, Mississippi (Cleland and McBride 1983; McClurken and Anderson 1981). Two of these communities were nucleated towns which existed in the mid-19th century. The third community was a more dispersed community, which existed from the mid-19th century into the 20th century. It exists today as a dispersed locality or neighborhood, although most service functions, such as country stores, a ferry, or a post office, do not exist. Land deeds, chattel deeds, census records, and a store account book from the Vinton community were the major data

sources for this study. Besides the data collected during the Tombigbee Historic Townsites Project, additional data were collected by the author in from 1981 to 1985. These data included additional land and chattel deeds, court cases, and additional census schedules. Copies of census schedules were purchased from the National Archives, and other materials were studied and, when necessary, photocopied, from the Clay, Monroe, and Lowndes County, Mississippi courthouses. The private ledger was photocopied, with the permission of its owner, before it was donated to Mississippi State University Special Collections.

The analysis was accomplished by use of a variety of methods. General historical research and reconstruction of landholding patterns and tenant-landlord relationships was used to provide a historical narrative of the study area. This narrative establishes the nature of tenancy within the study area. Subsequent analysis on the household was conducted by analyzing the composition of households, their life cycle stage, and the position of persons within households. The latter two approaches are important to mediate the generally static nature of household compositional analysis. Analysis of marriage patterns and fertility was based upon computation of a series of measures, some standard and some experimental. Specific methodologies are described in their corresponding chapters. These include calculation of age-specific fertility rates, indices of the level and character of fertility, and singulate mean age at marriage. A major thrust of the analysis was to calculate these measures separately for subsamples broken down by race, residence (rural versus urban), and tenure. Analysis of agricultural was accomplished by summary statistics on agricultural holdings and production, also broken down by owners, renters, and sharecroppers. Simple correlation (Pearson's R) analysis provided assistance in examining relationships between the agricultural and demographic data.

Most of the numerically oriented analyses were facilitated by construction of a series of linked databases for 1880 and 1910. The most basic databases were person and household databases, constructed from the federal census. The census is organized by districts, with each district having its own (usually locally known) enumerator. For 1880, each database consists of the entirety of two census enumeration districts. The first district used was the northern half of Beat One (a local county subdivision) of Clay County. This encompasses the Vinton community. The southern half of Beat One, which was enumerated as a separate district, was not used because it was composed predominantly of the Waverly community. The second enumeration district used to in the 1880 data set was the Darracott enumeration district of Monroe County, which bordered Vinton on the northern side. Historical research established the close interaction of the Vinton and Darracott communities during this period (McClurken and Anderson 1981; McBride 1983). Use of these two census enumeration districts resulted in a total data set of 1,184 households from the population schedule of the census. One ward (108 households) from West Point, the county seat town and the town closest to and most used by the Vinton population, was also entered into the person and household databases for comparison in the fertility analysis.

Each person from each households listed in the census was entered as a separate record into the person database. This record described characteristics of the person, such as age, sex, race, occupation, and so forth. Each household was then entered as one record in the household database. The household record described characteristic of each household, such as name of the household head, household type, life cycle stage, tenure, number of persons, number of family members, types of non-nuclear family members, number of non-relatives, and so forth. Each person in the person database was assigned a household number, according to the household in which they resided. This same

household number was assigned to the corresponding household in the household database, and provided the link between the person and household databases.

Both the household and person databases were constructed from the population schedule of the census. The next step was to link the household database with information from the 1880 agricultural schedule of the census. This schedule lists each farm by the name of a farm operator, along with an variety of categories of information on agricultural holdings and production. This agricultural information includes whether the farm was owned, worked on shares, or rented for cash; the number of improved acres, the number of unimproved acres; value of livestock, value of farm implements and machinery; wages paid to hired labor; counts of livestock, by types, and value of same; acres planted to individual crops; and yields of individual crops.

The farm operator was the person considered to be in charge of the farm, such as the owner, or in the case of a tenant farm, the head of the tenant household which rented the farm. Almost without exception, this person was the head of the rural household, as given in the population schedule. These names of the farm operators were entered into the agricultural database. Once sorted alphabetically, the names of these operators were matched to the names in the person database, and through the household number, to the household database. Any farms that could not be matched to an entry in the household database were not utilized. A total of 467 households from the household database were matched with entries from the agricultural schedule. Very few households in the agricultural schedule could not be matched to the household database, but a large portion of households in the household database were not listed in the agricultural schedule. This is because their members worked as agricultural day laborers and did not own or rent their own farm. Thus is should be remembered that the agricultural analysis, or any analysis

that is broken down by tenure, deals only with those persons who operated their own farms, whether they sharecropped, rented or owned the farm.

Person and household databases were constructed for 1910 in the same manner as described above for 1880. The 1910 Vinton sample is composed of all of the northern half of Beat One, or 686 rural households. While most of the detailed analyses focus on the rural Vinton community, Wards One and Four (525 households) from West Point were also entered into the person and household databases. This sample is roughly the northern half of West Point and encompasses large white, black, and mixed neighborhoods. It is used predominantly in the analysis of fertility, because of the importance of rural and urban differences in fertility.

Like the 1880 census, the 1910 census provides usual demographic data such as age, sex, and occupation, which was entered into the person database. However, the 1910 census also provided more detailed information on marital status -- including whether a marriage was a first, second, third, or, in a few cases, fourth marriage; and the number of years in the present marriage, which was also entered into the person database. Demographic information also included the number of children born to each woman and number of children surviving, along with a listing of these children and their ages, if they resided in the household. This also was entered into the database.

Unfortunately, the manuscript agricultural schedules for 1910 (and 1900), which appears to have given tremendous detail on tenancy arrangements, have been destroyed by act of Congress. However, the 1910 population schedule included the crucial variable of whether the household's home or farm was rented or owned. This information was entered into the household database. Some additional agricultural data were available for the 1910 time period from a private account ledger from a Vinton commissary. This ledger

gives a detailed accounting of the supplies furnished to a group of tenants, as well as other charges, like rent, and credits, such as pounds of cotton produced. Although this ledger was for the year 1911, it was linked to the 1910 household database with the assumption that most households would not have undergone significant changes over one year. A final database was constructed for the 1910 fertility analysis. This database listed all children, by the age of their mother, from the 1910 person database.

Arrangement of Chapters

Chapter 2. discusses the history of tenant farming in the postbellum South and gives a brief narrative history of the Vinton community. It highlights the major theoretical issues in the study of tenancy which the present study can address, and traces the development of tenancy in the study areas. Chapter 3. presents the data and analyses on household composition and the household life cycle. It presents a look at household composition from the perspective of the household unit and the individual. Chapter 4 presents the analysis of marriage and fertility. Chapter 5. presents the agricultural data and analysis and discusses relationships between the agricultural data and demographic structure and processes. This discussion includes consideration of Chayanovian relationships. Chapter 6 summarizes major findings from the study, presents comparative data from select studies, and assesses the contributions of the study. The Appendix presents the various systems of classification or categorization used in the analysis of household structure and composition.

CHAPTER 2

THE CONTEXT OF SOUTHERN TENANCY

Introduction to Southern Tenancy

This chapter provides the historical setting for the analysis of household composition, fertility, and agricultural production. It introduces the reader to postbellum Southern tenancy in general, and discusses historical developments within the Vinton community. In the latter task it draws heavily on McBride (1983), with additional use of chattel deeds and court depositions from the Clay County Courthouse, West Point, Mississippi.

Agricultural tenancy was well-established in the South before the Civil War, as well as in other regions. A number of factors encouraged tenant farming, including tight money policies and frequent foreclosure by powerful financial institutions, the speculative nature of American agriculture, which drove up land prices and made short term leases profitable (Goldenweiser and Truesdell 1924). Antebellum tenancy has frequently been interpreted as an "agricultural ladder" that allowed those initially without the means to buy land and supplies to engage in productive farm labor and accumulate the means to become farm owners . After the Civil War, agricultural tenancy became very common in the South, especially those areas that specialized in cotton. This tenancy rose to such an extent that the older interpretations of tenancy were no longer viable (Cox 1944).

Tenancy in the South after the Civil War was frequently the result of the subdivision of a large plantation into a number of tenant farms. By 1910, fifty percent of all farms in Mississippi were tenant farms on tenant plantations, higher than any other state. Another 20 percent of all farms were tenant farms not on plantations, usually single tenant farms. These tenant "plantations," as they were frequently called, could be composed of from one to 50 smaller individual farms. Of these tenant plantations 67 percent were composed of five to 10 tenant farms (U.S. Census 1913:884, 1916).

By 1930 72% of all Mississippi farm operators were tenants, and 47% of the entire Mississipi population were members of tenant farming households. This figures compare to national figures of 25% of all farm operators in 1880 and 42% of all farm operators in 1930. Nationally, there were always more white than black tenants, although blacks might individually have a higher rate of tenancy. However, in Mississippi, black tenants greatly outnumbered white tenants (Cooper 1933).

Tenant farming was especially concentrated in cotton areas. A special report on cotton production in the United States in 1880 (U.S. Census 1884) showed that 43 percent of the tilled land in Mississippi was devoted to cotton, more than any other state. One of the most important cotton regions of the state was the black prairie, often called the black belt because of its narrow formation that swept through the northeastern and northcentral portion of the state. The richness of the black prairie soils had attracted some of the earliest settlers to Mississippi. Figure 2.1 (taken from U.S. Census 1884) shows the location of the study area within the black belt. Clay County, within which the study area is located, devoted 51% of its acreage to cotton in 1880. This figure is lowered by the non-cotton lands in western Clay County. On the eastern side, where the study area is located, even higher proportions of land were planted in cotton. Although cotton prices fluctuated during the thirty years encompasses by the present study, being especially low in the

1890s, major changes in cotton agriculture did not occur until the drop in demand associated with WWI (Daniel 1984). Bondurant and Welch (1956) suggest that cotton prices from 1870 to 1915 were relatively stable and followed closely the wholesale price index of all commodities. Black populations usually did not begin to show the effects of large scale out-migration until the next decade, when the growth of jobs in northern industries and the boll weevil, and dissatisfaction with the increasingly extractive policies of landlords encouraged abandonment of tenant farming (Fite 1984; Higgs 1984; Kirby 1983).

Thus tenant farming was a proven means of organizing agricultural production in the United States, and one that would eventually characterize much of the South. A large percentage of ex-slaves had worked in agriculture during slavery, and wanted to continue farming. Although most ex-slaves demonstrated a desire to farm for themselves, most lacked the means to buy or rent land or to even acquire basic agricultural tools and supplies. Although reconstruction policies initially called for widespread distribution of land to ex-slaves, such policies were changed, not fully implemented, or repealed. Ex slaves lack of land, or credit resulted in a massive disequilibrium between labor and land in the South following the Civil War.

Tenant farming, although always a possibility, was not the initial solution tried in most part of the South following emancipation. Ex-slaves themselves were not accustomed to this method of farming, and neither was the majority of Southern white landowners. Many landowners probably had difficulty imagining persons they had once owned as slaves, and for whom they had elaborated a massive ideology of paternalism and dependency, farming on their own, or were generally reluctant to give up any control of agriculture on their lands. Instead, most early attempts at reorganizing agricultural production were based upon wage labor. This was the system formally promoted by the

Figure 2.1. Location of study area within black belt.

Freedmen's Bureau. Often landowners tried to organize blacks to work in gangs, much as they had under slavery. Arrangements as to provisioning and living conditions, the level and method of payment, supervision, and other factors varied greatly.

There were many problems with this system. A true test of wage labor was never possible because landowners were unable to pay wages sufficient to support black laborers, on a regular basis. The shortage of specie and credit that characterized the South after the Civil War severely limited payment. As a result, landowners often could not pay until the end of the season, during which time they had to provide for the physical necessities of their laborers. To many parties, on both sides of the transaction, this arrangement was too similar to the situation under slavery. A cotton agent on the Sea Island noted that , "one thing the people are universally opposed to. They all swear that they will not work in a gang, i.e., all working the whole, and all sharing alike" (Pearson 1969). Black laborers' general dissatisfaction with wage work can also be seen in their demands for converting the fixed wage to a wage determined as a share of the crop. This is despite the fact that a fixed wage was more secure, and in some circumstances, more lucrative (Shlomowitz 1984). It is not surprising that blacks would have been dissatisfied with wage labor in any form, since most had expected their own farms once they were freed.

Also, black laborers expected wages sufficiently high to support not only themselves but also non-working members of their family, a situation that many landowners/employers would not support. A frequent complaint of landowners/employers during the early years after emancipation was that many black women and children had withdrawn from agricultural production. For example, contemporaries and modern economic historians estimated that the labor devoted to agricultural production during the late 1860s and early 1870s was only about one-third of pre-emancipation levels, in large

part due to the withdrawal of women and children (Gutman 1976; Jones 1985: Kolchin; 1972; Litwack 1979; Ransom and Sutch 1977; Shlomowitz 1984).

This situation was viewed with disapproval not only by Southerners but by many of the northern abolitionists who had strongly opposed slavery, especially since women and children working for wages was a common occurrence in Northern factories. Jones (1985) suggests that northerners expected blacks to pursue wage work in a self-interested fashion, and that they misinterpreted black women's lack of desire to do so as attempts to imitate middle-class white norms. In these assumptions, the northern critics disregarded the strong family ties that bound black households, underestimated the desires of black men and black women to restrict the contact and power white men had over black women, and underestimated the desires of black women to work directly with and for their families.

It can be argued that as long as black women pooled their wages into a family fund, they were working for their families. This case has been described as the family wage economy by Tilly and Scott (1978), among others, as characterizing much of white women's wage work in the 19th century. However, the lower wages set for women by the Freedmen's Bureau, and the use of the gang organization, may have greatly decreased the incentive for black women to continue a form or labor which was repugnant and which separated them from their children, and often husbands, for most of each day. This interpretation is supported by the fact that more widowed and single black women participated in wage labor (Flynn 1983; Jones 1985). Woodman (1985) and Strickland (1985) also argues that contemporary critics (and subsequent scholars) underestimated the extent to which blacks objected to wage labor itself, regardless of the level of wages or working conditions, as violating their own moral economy.

The squad organization of labor was probably the first adjustment to the low success of wage labor by gangs. In this form, groups of laborers, usually 5 to 10, would work together. One member would have ultimate authority and responsibility for the work of all. Squads were often groups of related persons, in some extremes one nuclear family, and in this way they foreshadowed household-based sharecropping. Although less objectionable than the gang system, the squad system was not totally successful either. One problem which was never resolved was how to insure an equitable division of the product among the various laborers in the squad, matching the return to the varying levels of work contributed. Squads also did not meet the desire to work as family units (Shlomowitz 1979).

Sharecropping on separate parcels, farmed by family units, was tried in some areas in the late 1860s. It aroused bitter complaints from the majority of landowners, who were still in favor of the gang wage system (Wiener 1978). Wright (1986) estimates that it was not until 1880 that the individual sharecropping system had more fully replaced the wage labor system, although of course some scattered wage labor continued throughout the entire postbellum period.

The system of sharecropping that arose in the South was in some ways similar to wage labor, since most families brought only their labor to the farm, with all supplies being furnished by the landlord. The title to the crop actually remained with the landowner, with the sharecropper being paid out of the returns from the crop. However, sharecropping differed from the old gang system and from more typical wage labor in crucial ways. The household replaced the gang, and the constant supervision of an overseer was replaced by intermittent visits by a landlord or his agent. Individual tenant houses were usually constructed on the farm, as opposed to the centralized housing that characterized gang wage

labor (often the old slave quarters). And renters, as opposed to sharecroppers, did have a stronger legal claim to the crop.

Although many landlords were skeptical of sharecropping and renting, they were largely forced by the persistence of blacks to adopt this organization. Many landowners were especially against renting land to blacks, since renting usually assured the tenant greater autonomy as well as legal title to the crop. Many white landowners were skeptical that blacks would provide the level of labor the landowner desired without coercive pressures (Fight 1984; Flynn 1983; Hahn 1983; Wiener 1978). However, landowners could also see positive elements in sharecropping and renting, among these being the opportunity to cut down supervision time and costs, the sharing of standard agricultural risks with laborers, and the hope that the laborers would increase their interest and devotion to crops when farming as a family unit and sharing the produce.

Most scholars agree that the entire black family was drawn back into cotton production under sharecropping, and renting. The variety of sharecropping and renting arrangements was great. A study in 1910 concluded that "the details of these variations in dealings of landlord and tenant are practically endless" (U. S. Industrial Commission 1901, cited from Alston and Higgs 1982). The portion of the crop that went to the landlord versus the tenant varied both regionally, and on a case by case basis. The crop division usually bore some relationship to the relative inputs supplied by each party. True renters, whether the rent was paid in cash or crops (often called "standing rent") had a stronger legal claim to their holding and crop. Sharecroppers could also be split into true sharecroppers, who provided only labor, and share tenants, who provided power, equipment, and a portion of the fertilizer and other inputs. One specific form of share tenancy was called "thirds and fourths." The tenant furnished provisions, tools, and the team but only part of other inputs, and received three-fourths of the cotton and two-thirds

of the corn as payment (Taylor 1943; Welch 1943). This was a very common system in Mississippi, and it is likely that a large portion of those farmers reported as sharecroppers in the federal census were in fact share tenants.

More complication arrangements sometimes included direct contributions of labor from the tenant farmer to the landlord, to be applied to other farms than the sharecroppers'. For example, Lewis (1984) reports an arrangement in South Carolina where one day of labor per week constituted the sole rent. This is a variant of the "sharing of time" agreement discussed but shown to be rare by Shlomowitz (1979). Also, one plantation might use several different arrangements, depending on the needs and resources of various farmers, and the level of input and supervision provided by the landlord varied considerably. Many additional or side arrangements were often made to a basic contract, as for example when tenants were paid wages for long-term maintenance work not considered part of their normal responsibility to their crop. Tenants on a plantation where the landlord lived elsewhere often had the most autonomy, although the landlord may have employed an agent. Renters generally had more autonomy, although Edwards (1913) suggest that this was not originally the case (Edwards 1913; Woofter 1969). Mandle (1978) points out, however, that racial prejudices restricted the autonomy of all black farmers, even renters and owners.

Renting usually required ownership of at least one mule and other personal property. Nationally, the proportion of tenants that rented instead of sharecropped increased until 1900. Although this trend is consistent with the "agricultural ladder" interpretation of tenancy (DeCanio 1974; Higgs 1977), this trend has also been linked to the transfer of lands from local landowners to merchants and factors, many absentee, who preferred the lower involvement and supervision of renting (Fite 1984). After 1900, the proportion of sharecroppers increased (Alston and Higgs 1982). This trend is explained by

Wright (1979) by increases in the prices of mules from 1899 and 1918. It may also be related to reform policies on the part of landowners to increase profits from tenant plantations during this period. Such policies were explicitly stated and enforced on a nearby plantation in Monroe County from 1901 to the early 1920s. The new policies resulted in the removal of most renters and their replacement with sharecroppers, who could be controlled to a greater degree by the landlord (Kern et al. 1982).

The Vinton Community

During the postbellum period, Vinton was a loosely dispersed rural community along the Tombigbee River, in Clay County, Mississippi (Figure 2.2). Exact community boundaries are difficult to draw (Cleland 1983). The population was predominantly black, depended on cotton production, and tenant farmers. In the antebellum period, the area had been characterized by cotton farms and plantations, but also included the nucleated riverport communities of Colbert (1835-1847) and Barton (1848-circa 1865), and the semi-nucleated crossroads community of Vinton (1848-present). Settlers in this area had frequently gone to the Lowndes County seat of Columbus for business, social activities, and to acquire merchandise, although those in the northern part of the area also patronized the Monroe County seat of Aberdeen. Many of the large planters also relied on cotton factors from Mobile to market their cotton and procure supplies.

The nucleated town of Barton began to decline in the mid 1850s when the Mobile and Ohio Railroad bypassed it for the town of West Point, about 10 miles to the west. During the 1860s and 1870s, many of the white residents, who in large part had lived in Barton (Figure 2.2), left the area for West Point and other places. For example, of the 28 white families known to have lived in Barton or near the Vinton store in 1860, only 10

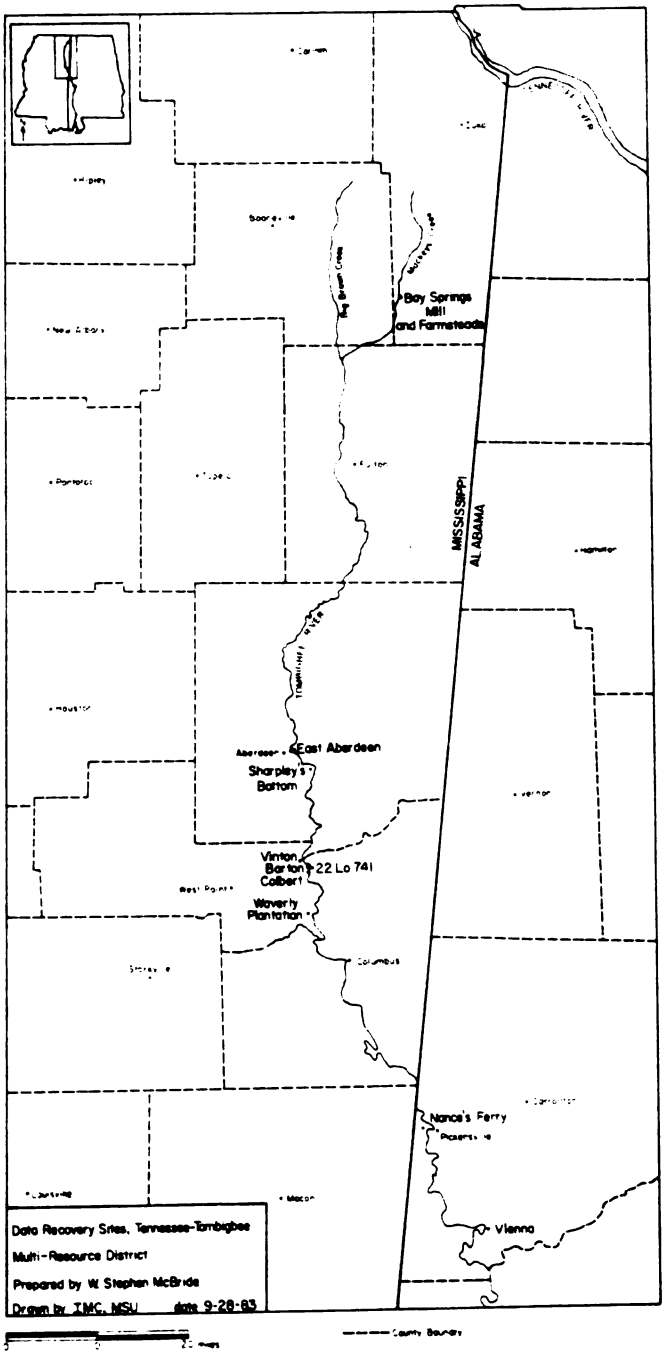

Figure 2.2. Location of study area and nearby communities.

were located in the 1870 census. Few new white families are known to have moved into the area during the postbellum period, and the variety of occupations represented decreased dramatically. Some of the white families who remained in the area experienced financial difficulties during the postbellum period, as was typical in most parts of the rural South.

Since slave counts are not known for the entire study area, it is hard to say how many ex-slaves used their freedom to migrate to other places. The frequency of surnames such as Matthews, Fields, Strong, Keaton, Lloyd, or Cox among the postbellum black population correspond to those of the larger antebellum planters in the area, and suggest that many ex-slaves remained. The extent to which Vinton residents were involved in the Reconstruction government and activities is difficult to determine. There are records of local complaints to the Freedman's Bureau concerning leases or contracts now on file at the National Archives. Letters of the Shaw family of Darracott, just north of Vinton, suggest that many white residents also experienced considerable difficulty in adjusting to the changed social and economic conditions.

Monroe County, into which the northern portion of Vinton extended, was an active Ku Klux Klan area. One of the largest landowners south of Vinton was Thomas Martin, an absentee landlord from Tennessee who was influential in the establishment of the Ku Klux Klan. The fall of 1875 was so full of "political excitement," as described by one local resident, that the cotton crop was not completely gathered (Clay County Case File 236). In November of that year a group of 11 of the largest landowners from District One of Clay County, many of them from Vinton, formed a committee and put out notice that they would refuse to rent to anyone who voted the Republican ticket. They also warned that they would refuse to rent or deal with anyone associated with such characters, and that a penalty of a double rent would be inflicted on tenants who did. They specified that they considered anyone who refused to cooperate with their committee unworthy of public confidence and

trust, and that the names of such persons would be sent to the local papers. The democrats were back in office in 1876.

Little information is available on social activities and networks during the postbellum period. A number of local clubs, like the Masonic Lodge, the Grange, the Vinton Gun Club, and a reading club, were organized by the white population. Political speeches, rallies, and picnics were also popular, as were seances at the Shaw home in Darracott. The strength of rural community bonds is apparent from the Vinton column in the West Point paper, where one resident's illness or accident became the concern of many, or a courtship or mishap might be the occasion for humor. Eva Coletrane, a 15 year old white resident, described the Vinton community in 1887 in this way:

> Vinton is about ten miles from West Point, two and one half miles north of east. What a great blessing a post office is, even without the advantage and privilege of a town or city. There are so few white people living in our section that living here borders on confinement. It might suit one who does not like to be crowded, but one of my age, with a strong desire to see a great deal of the world, suffers a little sometimes, like the inmates of a cage. Were I qualified to write an interesting letter it would not be a batch of locals. We have no landings in use, no depots, and but little visiting; hence the advantages of these things furnishes no material for a Vinton correspondent. I do not mean to complain, but merely to apologize for having very little in the way of local items to write (West Point Leader, 24 February 1887).

Even less in known of social activities and networks in the black community. Oral history has established the importance of the local churches and schools, and of a strong mutual aid network among black residents (McClurken and Anderson 1981).

Freed blacks demonstrated strong desires for schools for their children (Gutman 1976). County warrant books recording payments to teachers or for repairs to schools indicate that schools were established for black students at Vinton in the 1870s. Some of the early schools within the study area were held in churches. These include the schools

held at Free Grace Baptist church, the Concord churches, and Paines Chapel west of Vinton. A separate school, the Andrews School, was established near the Bethel Baptist Church.

Schools, both black and white, were continually being moved around, presumably in an effort to minimize walking distances and spread out enrollments. In 1891, a new school was established in the southern portion of Section 35 (see Figure 2.3 below). The main school for black children at this time was on Town Creek, in Section 34, with the Fields School serving the southern end of the neighborhood. The white Vinton school usually had only one instructor at a time, while the main black school at Town Creek usually had from two to four teachers or assistants, in response to the larger number of black children.

School was in session for 80 to 100 days a year during most of this period, from November to March. Attendance was undoubtedly affected by the necessity of children helping their parents in agricultural chores. The Vinton correspondent to the West Point paper noted in March 1887 that "the school will be lessened in number soon, as some of the pupils will have to discontinue. The busy time of the farmers is near at hand." A state school census in 1880 indicated that attendance at the black Town Creek school in 1880 was 76 students, 29 males and 47 females.

Attendance at the white Vinton school in 1880 was 30 students, 13 males and 17 females. The fact that the number of white students was almost 40 percent of the number of black students suggests a much higher attendance rate for the white sample. School records from the 1890s suggest that total attendance of black students was usually from 85 to 100 pupils during the 1890s. The male to female ratio was usually nearly equal, with females often slightly more numerous. Enrollment at the white Vinton school ranged from

33 in 1889 to 13 in 1900. At the beginning of the decade there were many more male students, but by the turn of the century equal numbers of boys and girls attended school. Because of the fluctuations in school district boundaries, it is hard to estimate the total school attendance for the wider Vinton neighborhood used in Chapters 3-5. The children of Vinton merchant W. E. Trotter attended private schools in other communities. Trotter was likely one of the wealthiest landowners in Vinton, and most Vinton residents probably could not afford private schools.

The town of Barton, located about one mile south of Vinton, had been severely damaged by the coming of the railroad to West Point in the mid 1850s and ceased to exist during the Civil War. The community of Vinton, which had to some degree been overshadowed by Barton during the antebellum period, now expanded. The center of the Vinton community remained the Vinton store complex. It included a house, store, post office, ferry, blacksmith shop, and cotton gin (Way and McBride 1983). However, in 1876 the Vinton school and church, which had been located near the Vinton store, were moved several miles north to better service the entire rural Vinton community. The church was eventually merged with a church from the neighboring community of Darracott, and called Bethel Baptist. It was predominantly composed of white residents, although its membership roles for 1878 to 1900 include two blacks. Most blacks attended the Concord I and II churches, located in the western portion of the community; the London Chapel or Town Creek churches, located in the southern end of Vinton; or Free Grace Missionary church, organized in 1869 and located near the Bethel Baptist Church in the northern portion of Vinton.

One of the most important social and economic institutions within the community was the Vinton store. During the antebellum period, the Vinton store was owned and run by several persons. However, the last and main owner was William E. Trotter. Trotter

had spent some of his young adult life in nearby Columbus, Mississippi, before establishing a store in Moscow, Marion County, Alabama. Shortly before his departure from Marion in 1854, R. G. Dun and Co. agents reported that he was the best businessman in the county and that he had made a small fortune in trade. During his stay in Moscow, he married Sarah A. Moore, who was probably related to the Moore family who owned a large plantation near Vinton. William E. and Sarah Moore Trotter moved to Vinton, and in 1855 Trotter joined the mercantile business of his brother-in-law William H. Moore, at Vinton. Moore sold out to Trotter within several years.

Under Trotter's proprietorship, the Vinton store prospered. Trotter's land holdings during the antebellum period had been concentrated around the store, as most of the prairie land to the west was owned by large planters. However, during the second half of the nineteenth century, Trotter's holdings grew tremendously. Beginning in 1870, he bought much of the land just west, north, and south of his home and store. He also acquired several parcels on the east side of the Tombigbee River, within several miles of the Vinton store. In 1880, he added another section to the western holdings.

Figure 2.3 shows Trotter's lands, and gives dates of acquisition and resale or mortgage. He acquired several parcels through mortgages. It is likely that other transactions, although not specified, may have represented settlements of debts owed to his store. By the late 1880s Trotter owned at least 4,369 acres, more than most of the largest antebellum planters in the area. For example, in 1860, only 2.2% of all plantations in Lowndes County were over 2,000 acres (Stephen McBride, personal communication 1990). This process of concentration of holdings during the early postbellum period has also been demonstrated in Alabama and Georgia (Hahn 1983; Wiener 1978).

Acquisition of land by a rural furnishing merchant like W. E. Trotter was not unusual. The demise of the factorage system which had supplied much of the rural South created a large gap in finance and mercantilism. These problems were increased by the scarcity of banks and specie in the South, a lack of alternative credit arrangements, and a lack of capital for security. Land values after the Civil War were low, reducing the collateral of owners, and then a large percentage of the population, the freed slaves, owned no land and little personal property. The rural furnishing merchant and the crop lien system solved these problems (Ransom and Sutch 1977; Woodman 1968). With credit from a northern wholesaler, the merchant sold supplies, usually on credit, to local residents. Security was provided by a lien on the coming year's crop. Lien laws were established soon after the end of the Civil War. They were described by Southern historian C. Vann Woodward (1951:180) as "one of the strangest contractual relationships in the history of finance." Yet Woodman (1968) points out that in some regards they were a continuation of the factorage system, under which goods were advanced on credit to a planter who promised to let the factor handle the coming crop. While most antebellum transactions were conducted by word of honor, the postbellum arrangements were more formal, with a lien recorded on the crop. Also, the antebellum factor was usually no more than an agent for the planter, while the postbellum merchant took actual possession of the crop through the lien.

The furnishing merchant could use a local knowledge of farmers to estimate their solvency and productive capacity in a way that outside suppliers could not. This knowledge and the dependence of all farmers, not just tenants, on credit, led the rural merchant to establish territorial monopolies with virtually no competition. The local furnishing merchant often not only provided supplies, but managed the marketing of the agricultural crop for local farmers, served as a bank in dispensing cash, served as the legal intermediary for persons (especially blacks) unfamiliar with legal and judicial systems, and

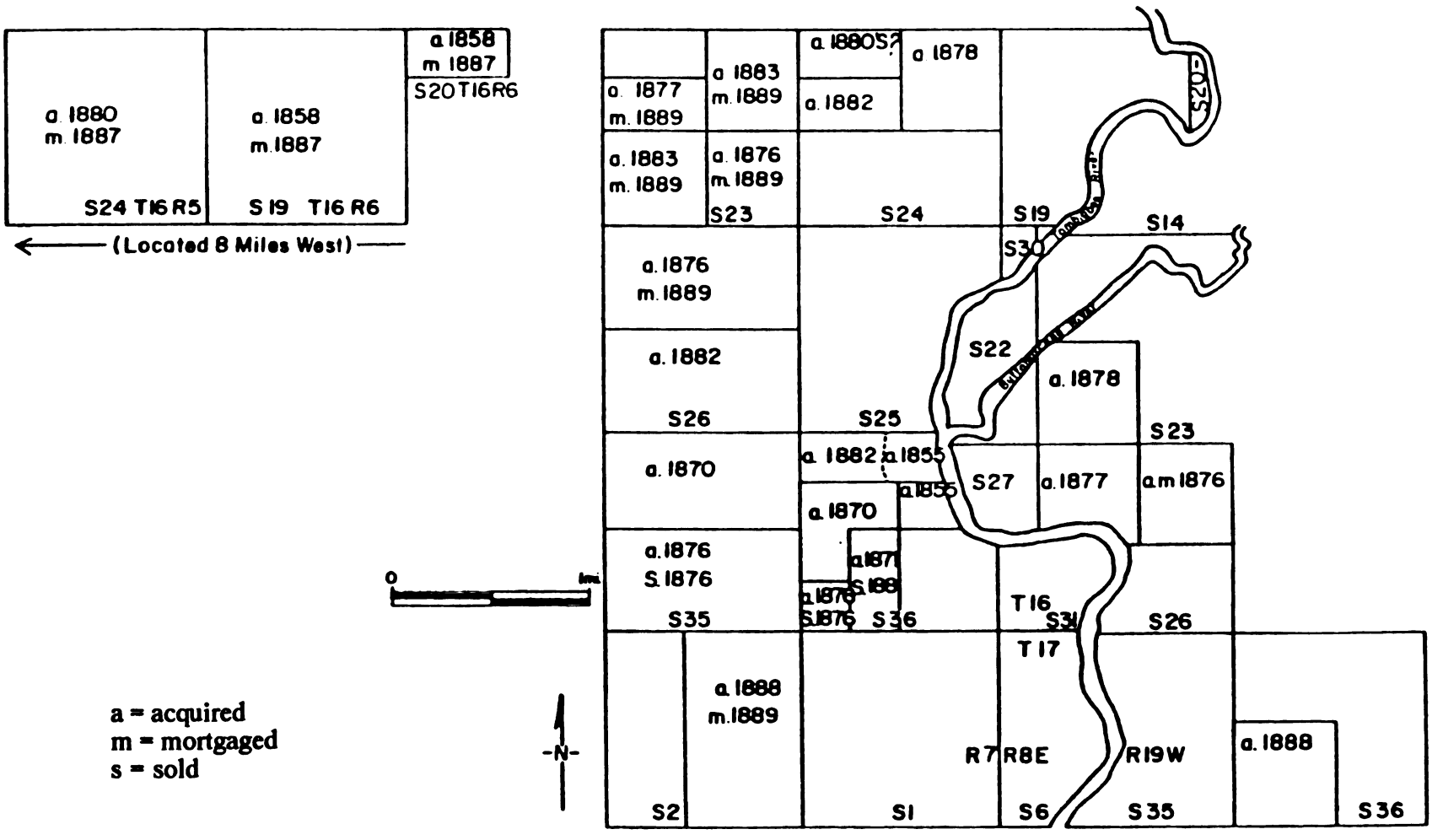

Figure 2.3. Land acquisitions of W. E. Trotter, late 19th century.

generally became one of the most central figures in the rural community (Clark 1944, 1946; Ransom and Sutch 1977).

Supplies were usually sold on account, with higher prices for credit purchases, and interest at 10 to 20 percent of the account. Local Vinton merchant W. E. Trotter charged 10 percent interest, as did a merchant in nearby Pickens County, Alabama (Wesson 1980). Ransom and Sutch (1977) suggest from a study of a number of merchants in the South that total interest and credit charges averaged over 50 percent, in addition to wholesale to retail mark ups. They also suggest that many merchants, as well as landlords, employed a number of devices, including faulty bookkeeping, intimidation, and violence to keep black laborers in debt, and thus working. However, these methods are not necessarily in evidence when a merchant showed a profit, since the markup and interest alone should have created favorable business conditions.

Since landowners also desired a lien on the coming crop, there was a built-in conflict between merchants and landlords. Many states passed legislation to help resolve this conflict. In Mississippi, for example, the landlord lien was given priority over that of the merchant (State of Mississippi 1880). Other states passed different legislation, although most states within large plantation regions followed this path.

The conflict between merchants and landlords was sometimes resolved by merging these two functions in one individual. There is some debate whether the dominant pattern was for former landowners to become merchants, or merchants to acquire land (Hahn 1983; Ransom and Sutch 1977; Wiener 1978) In the former case, a landlord would often begin by setting up a commissary, mainly to supply tenants, and later expand into general merchandising. In the latter, a merchant would acquire land, usually surrounding the store. Wiener (1978) suggests from a study of a number of merchants in Alabama that in

plantation regions, planters usually became planter-merchants, and remained dominant. The planters' success in lobbying for legislation which gave the landowner the priority lean was crucial to their continuation of control (Hahn 1983; Wiener 1978). In the less fertile regions where planters were less common and less powerful, merchants more frequently became merchant-planters, which created a more revolutionary transformation of the social structure (Wiener 1978:93). Although the study area is within a plantation area, it is the later scenario, a merchant-planter transformation, that best describes the events at Vinton during the postbellum period.

W. E. Trotter supplied farmers who owned their own land, tenants on other persons' lands, and tenants on his own lands. For many blacks, on their own for the first time with little money, tools, supplies, credit, or means to transport supplies the 10 miles from West Point, the closest town, the Vinton store was probably their only means to begin farming. Many of the other white landowners in this period became indebted to Trotter as well. Trotter's goods were shipped by rail to the county seat of West Point, and taken by wagon to his store. He was supplied by companies from Memphis, Atlanta, New York, Chicago, Mobile, and likely many others. He supplied a variety of goods, including mules, to farmers on his own land. In 1886 he owned 32 mules, which he supplied for an annual charge of from $45 to $100.

Other business at the Vinton store (all run by Trotter) included cotton ginning, milling, and the Vinton Ferry. The Vinton Ferry had operated during the antebellum period as well but in competition with the nearby Colbert and Barton ferries. In 1881 Trotter successfully petitioned for a change in the road network, so that traffic formerly directed to the Barton Ferry was redirected to Vinton. Although the petition was opposed by those who ran the Barton Ferry, Trotter's request was granted. This change probably increased Trotter's revenues in two ways, first by the ferry tolls, and second, through

incidental store purchases made by ferry passengers. This arrangement continued until 1893, a year after Trotter's financial collapse, when the Barton Ferry operators successfully petitioned to direct traffic back to the Barton Ferry and discontinue the road from the Barton Ferry to Vinton. It may be that 1893 thus marks the point when the Vinton store ceased to be the major economic center for most Vinton residents.

Receipts from the Vinton store were sought, but few were located. Trotter's monetary strength, as assessed by R. G. Dun and Co., grew from the $5,000 to $10,000 range in the late 1860s to $10,000 to $20,000 in 1874, and to $20,000 to $40,000 in 1876. In 1877 Trotter was the third largest merchant of the 52 merchants reported in Clay County. By 1886 his business volume had increased to $40,000 to $75,000. Only 11 percent of all Southern merchants did this much business in 1880 (Ransom and Sutch 1977:138). With this volume and his solid credit rating, Trotter probably could order large quantities of goods on favorable terms from any national wholesaler.

Many of Trotter's customers may have settled up their accounts periodically, selling their cotton or other produce to him, or paying in cash. Unfortunately no individual accounts from his store have been located, so it is difficult to compare cash and credit prices, or to estimate interest rates. Trotter frequently required a chattel deed or mortgage on the coming year's crop before advancing goods to customers. These chattel deeds specified the amount initially furnished, the additional amount Trotter agreed to advance over the year, and the goods mortgaged in return. Usually these goods included livestock, sometimes described in great detail, all the household goods owned by the family, and any crops produced by them or others for them. In some cases these deeds specified that the lien applied to all crops, including subsistence crops and not just cotton or other cash crops.

Chattel deeds to W. E. Trotter have been located in Clay County Chattel deed books. These deeds show advances of $5,608 to 20 customers in 1877, $7,526 to 62 customers in 1878, $9,835 to 32 customers in 1879, $7,580 to 27 customers in 1880, and $12,119 to 30 customers in 1881. Compared to the estimates of Trotter's business volume presented above, these chattel deeds must represent a small fraction of the store's business and certainly a small fraction of the total customers. The amount advanced to any one farmer ranged from $1 to $492. The advances to blacks never exceeded $450, while J. J. Cox, a white landowner who had many tenants on his own farm, was allowed to charge up to $1,500.

Until 1882 these chattel deeds usually specified the landowner on whose farm the crops were to be grown. By doing deed research, these farms have been located. Figure 2.4 shows the location, by section, of the number of farmers doing business with Trotter from 1877 to 1881. Trotter's main hinterland seems to have extended about 2.5 miles north and south of the store, and about 4 miles west, for a total coverage of about 20 square miles. He may have also supplied some farmers on the east side of the Tombigbee, especially since he kept the ferry in operation. However, no chattel deeds have been located for Trotter in this area, which is in Lowndes County. Figure 2.4 should be compared to Figure 2.5, which shows the number of black men age 14-44, according to the section in which they resided in 1870. This comparison suggests that Trotter furnished a large portion of the black farmers in the general Vinton area, and did indeed have a territorial monopoly (Ransom and Sutch 1977). Of the 70 chattel deeds located for farmers included in this data set, 32, almost half, were to Trotter.

A number of families in the southern portions of Figures 2.3 and 2.4 would probably have been furnished by the landowner J. J. Cox (mentioned above as one of Trotter's largest customers), as this area was known as Cox's quarters. Individual tenants

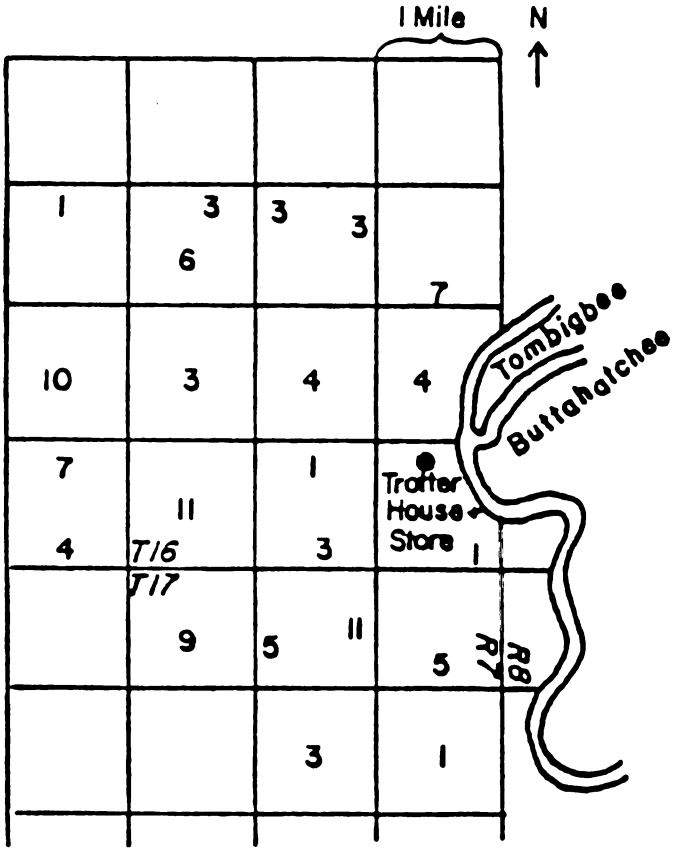

Figure 2.4. Number of Vinton store customers by location of farm.

may have come to the Vinton store and charged purchases to Cox's account, or Cox could have purchased the supplies himself and redistributed them to his tenants. In any case, the chattel deeds from Cox to Trotter suggest that Trotter also controlled, if only through Cox, the furnishing of these tenants. Figures 2.4 and 2.5 may also be compared to Figure 2.3, which shows Trotter's land holdings. He certainly would have furnished all farmers on his own land.

A collection of accounts from the Waverly plantation south of Vinton (Figure 2.2) suggest that in the first few years after emancipation, most landlords bought supplies in bulk to redistribute to their own laborers, many of whom may have been true sharecroppers working for a share of the crop as a wage. A number of Clay County planters registered contracts with the Bureau in 1865, including Jesse Dukeminier with 16 hands and 19 dependents, Joseph Fields with 17 hands and 13 dependents, F. E. Harris with 15 hands and 13 dependents on the Cox quarters south of the Vinton store, and Sherod Keaton of Vinton with 15 hands and 12 dependents. Elisha Strong, a large planter during the antebellum period, registered contracts with up to 75 hands. These contracts would have been for some form of wage labor. A contract from the Sharpley's Bottom plantation in neighboring Monroe County (Figure 2.2) specified that work would be conducted in squads, with 15 acres per person cultivated, works days of from 9 to 11 hours depending on the season, and fines for days not worked. The wage was one-fourth of the crop (Kern et al. 1982).

By the 1880s, it was more common for individual families to establish independent relations with a merchant, although the landlord might be needed to endorse the charges (Adams 1980:105). This corresponds to the increasing autonomy granted tenants over the postbellum period, and to the increasing popularity of share tenancy and renting, over sharecropping and straight work. As in most areas of the South, the lack of cash,

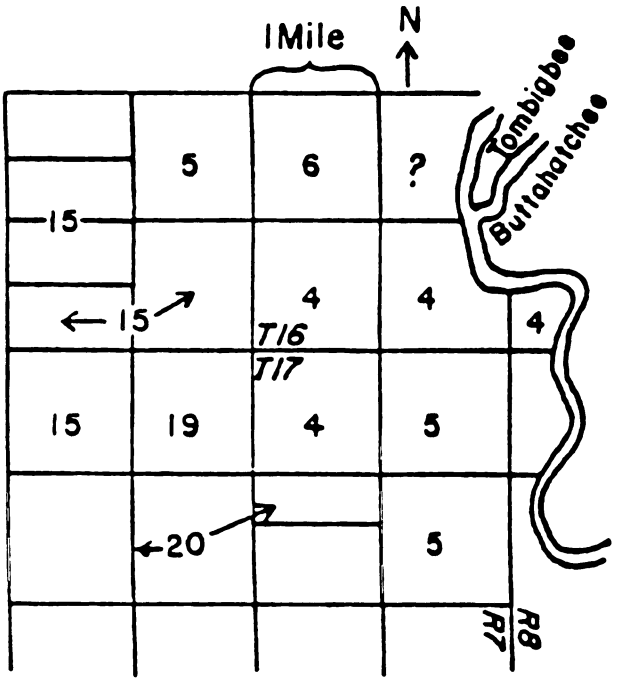

Figure 2.5. Number of adult black males by location of farm, 1870.

financial uncertainty, and freedmen's unfamiliarity and dissatisfaction with wages led to a fairly rapid progression into other systems. The squad system mentioned above, in which a group of persons worked one area of land together under the general supervision of one of the group, can be documented in the study area at the Thomas Martin plantation near Waverly, from 1869 until 1872 (Adams 1980; Clay County Case File 22). However, farming under this system at the Martin plantation proved entirely unsuccessful. After several years of net losses, the plantation was reorganized, and in 1874 contracts were made with individual tenants who farmed on a household basis. Cotton production, which had reached a low of 31 bales on the 2,826 acre plantation in 1872, increased to 139 bales by 1879. Estate reports also suggest that sometime between 1876 and 1879, tenants on the Martin plantation may have begun to farm on a renting rather than sharecropping basis, although rent was still paid from the sale of the crop (Clay County Case File 22).

The speed at which household-based tenant farming, versus wage labor or the squad system, was adopted within the study area is not known. There was probably a good deal of variation within the region. The Martin plantation seems to have switched by 1874, but the squad system was still in use on the B. A. Duncan plantation, on the western edge of the study area, in 1875 (Clay County Case File 236). Full standing rental arrangements were in place at the Sharpley's Bottom plantation quite early, by 1868, where households rented 30 to 50 acres parcels for a set amount of cotton. Interestingly, some of the first rental contracts at Sharpley's Bottom involved cases of multiple households farming together. These had split up into individual household farms by 1870. The landlord referred to the tenants' housing as the "quarter "in 1868, but referred to their "houses" in 1870. The tenants at Sharpley's Bottom had free use of a large section of cane and other unimproved land, which was important in raising livestock (Kern et al. 1982).

It is certain that some form of renting was quite common by the mid 1870s, when chattel deeds become quite numerous in Clay County. These deeds represent a lien given by the tenant on the crops they are to grow. The household-based system was undoubtedly firmly established by 1880, the initial time period used for the analysis on household composition and farming.

The chattel deeds rarely mention a house as security, suggesting that most of the tenants had their house provided for them along with the plot of land, as was frequently the case. Records from the Martin plantation mentioned above also support this interpretation, as entries in 1868, 1874, and 1876 concern building or repairing tenant houses. Ownership of the house was an additional lever landlords had over tenants. One Vinton tenant farmer took a landlord to court, in part because he could not pick all of his cotton crop because the landlord had turned him out of his house in January. His landlord claimed that the tenant should have completed the picking in December, but the tenant testified that most hands on the plantation had not finished picking their cotton by this time, due to an unusually rainy season (Clay County Case 236).

Little specific information is available about details of tenant contracts and arrangements within Vinton. A court case in the 1880s provides some information about a tenant living just north of the Vinton store. This tenant, Henry Keaton, had been a slave of Sherod Keaton, a prominent Vinton resident. Upon emancipation, Henry remained on the Keaton farm and rented about 25 acres from the Keaton family. He also had use of about 10 acres of sedge or marsh land just south of his farm, at no charge. In 1879-1880 he rented by the share method, with his rent being one-third of his corn and fodder and one-fourth of his cotton. This was a common system in the Vinton area as in other parts of Mississippi, often called renting on thirds and fourths (Adams et al. 1981; McClurken and Anderson 1981; Smith, Barton, and Riordan 1982). It was probably restricted to those

tenants who furnished a good deal of their own supplies, animal power, tools, and other necessities, with the landlord taking a larger share when the tenant had to be more thoroughly supplied. The produce that went to pay Henry's rent was 50 bushels of corn, for which he received $0.45 per bushel; 300 pounds of fodder for which he received $1 per hundred; and 1,180 pounds of cotton worth $0.1175 per pound. This would have yielded a total rent of $164.15 for that year.

There were two cabins on Henry's 25 acres, one 15 feet by 16 feet and one 16 feet by 17 feet, both 8 feet high and made of wooden planks. One of these Henry built, for a cost of $14. The other presumably was built by an earlier tenant or the landlord. Henry also bought a smokehouse from a neighbor and had it moved onto the property, and with some other farmers he built two cotton storage sheds in the middle of his fields. There was also a corn crib and a stable on the property. The Keaton household at this time consisted of Henry, age 60 and widowed, a son age 16, and 3 daughters, age 15, 10, and 8. The agricultural census listed 20 acres improved: 10 in cotton, from which they produced 4 bales; and 10 in corn, from which they produced 100 bushels. The 50 percent of this acreage donated to cotton production is relatively low for the region (see below in chapter 5). The estimate of the 100 corn bushels may also have been low. Henry's one-third of corn rent that year was 50 bushels, suggesting a yield of 150 bushels. The court case also suggested that Henry rented another 5 acres in addition to the twenty mentioned above. Part of this other five acres may have been used for the animals and planted in vegetables, especially since the census lists his household as producing 25 bushels of sweet potatoes. The household owned 1 mule, 4 cows, 25 pigs or piglets, and 30 chickens.

Henry supplemented his income by helping repair fences and outbuildings on the Keaton lands. In exchange, he was allowed to gin his cotton at the Keaton gin, free of

charge. Ginning charges were usually about $4 a bale (Henry produced 4 bales in 1880, according to the agricultural census). Sometimes he was paid for additional labor, such as in 1870 when he helped with miscellaneous repairs. For this work he was paid $0.75 a day for splitting rails, $1 a day for putting up fences, and $2.50 a day for hauling rails. This $2.50 included the horse or mule he provided.

Henry Keaton's landlord was Mary Cogdell Keaton Richardson. Her brother Thomas Cogdell helped her run the farm. A Vinton column in the West Point paper quoted a relative, in the following manner:

> Our younger brother, J. M. Cogdell, says he can make cotton as cheap as any man as long as he can keep his smokehouse and corn crib at home. He killed five pigs last week, netting him 1,200 pounds. He claims not to have bought any meat in six years. This is why he can raise such cheap cotton [cotton prices that year were expected to be around $.04 or $.03 a pound] (West Point Leader, 18 February 1898).

The fact that the Henry Keaton household owned a number of cows and pigs suggests they may not have had to buy much meat. Henry Keaton appears in the chattel deeds to W. E. Trotter, whose store was just south of his farm, for the low amount of $90 in 1879 (the agricultural year that the 1880 census come closest to measuring). However, many other tenant farmers did not own as much livestock as the Keatons and probably ran up much higher bills at the store. The $90 figure is low when compared to the mean amount advanced that year, $307. The corn to cotton ratio for the 21 black Trotter customers who could be located in the 1880 agricultural census was 1 to 2.64. As was noted above, Henry Keaton and his family planted a 1 to 1 ratio of corn and cotton.

It is not known if W. E. Trotter specified the acreage his tenants were to plant in cotton, although this was a common practice for landlords, especially when tenants farmed on the sharecropping methods, and merchants, in some case with the explicit purpose of

restricting self-sufficiency (Ferleger 1984: Fite 1984; Nixon 1938; Ransom and Sutch 1977). Fite (1986) has suggested that most share tenants (which would characterize Henry Keaton) were able to produce a good portion of their food, and that it was predominantly sharecroppers who spent up to half of their income on food. Records from the Sharpley's Bottom plantation north of Vinton show that while most farmers were tenants, their level of livestock and tenant accounts suggest a good deal of self-sufficiency. However, under a new landlord who enforced a preference for sharecropping, increased cotton acreage, and did away with use of unimproved lands, 9 out of 12 households exhausted their yearly store of corn by April, with 2 more running out in July (Kern et al. 1982).

At Vinton, Henry Keaton may have enjoyed an unusual freedom to plant less cotton than most tenants. His landlord, Mary Cogdell Keaton Richardson, and her brother Thomas, who helped run the farm, may have shared the sentiments of their relative J. M Cogdell, as indicated above, and allowed if not encouraged diversification and self-sufficiency among their tenants. The Henry Keaton households' charges to the Trotter store were even lower in surrounding years; $38 in 1877, $24 in 1880, and $25 in 1881. It should be noted that the 4 bales of cotton that the Keaton household produced on 10 acres was the highest yield per acre of any of Trotter's customers for that year, and that the 100 bushels of corn on 10 acres was also a relatively high yield per acre.

Other farmers recognized the importance of diversification in an economy in which cotton production was the mainstay. Production of corn, other crops, and livestock had all decreased during the postbellum period while the production of cotton increased, both in typical plantation areas and in non-plantation areas and among white as well as black farmers (Ferleger 1984; Fite 1984; Hahn 1983; Weiman 1985; Wiener 1978; Wright 1985). However, diversification was often encouraged. Many local residents belonged to the

Grange, an agricultural organization which discouraged over reliance on cotton. The Grange publication Patrons of Husbandry, whose goal was "to improve the Agriculturalist in his moral, social, intellectual, and pecuniary condition," was published in nearby Columbus, Mississippi. It railed against the Mississippi Valley Cotton Planter's Association and the furnishing merchants, and the demands of northern capitalists for more cotton. Lecture circuits were a common strategy of the Grange, and a Vinton resident, W. H. Dukeminier, was a Deputy Lecturer.

It is certain that many tenants did not enjoy Henry Keaton's level of agricultural wealth, or stability. Studies of tenant mobility suggest that in some areas, as many as one half of all tenant farmers relocated each year (Cooper 1933; Johnson 1934; Mandle 1978; Rosengarten 1974). Account books and court depositions relating to the Sharpley's Bottom community provide information on several tenants. One, Jerry Harris, moved 6 times between 1986 and 1901, although all moves were within a two or three mile radius. Another tenant moved seven times from the early 1880s to the late 1890s (Kern et al. 1982). In contrast, Henry Keaton seems to have been a long term resident on the Sherrod Keaton property in Vinton, where in fact he had been a slave.

A very different pattern is seen in the relationship between the tenant Sam Smith and his landlord R. B. Duncan, a large landowner in the western portion of the study area in 1875. Smith's contract, which was actually negotiated by B. A. Duncan, as agent for R. B. Duncan, stated that Smith was to receive one third of the cotton, corn, and fodder he produced during 1875, with the landlord receiving two thirds. The landlord agreed to furnish Smith and his squad of two persons 180 pounds of meat free of charge. Smith was to provide "good and faithful labor" in seeing to his crops. The contract stated that if Duncan felt Smith was not giving proper attention to his crops, Duncan could hire extra

labor and charge it to Smith's account. The contract further stated that Duncan had a lien on and control of the crop until he and Smith had settled their contract.

Contracts such as this one are rarely preserved, and in fact this contract was located only because it had been given as evidence in a court case. Smith's testimony suggested that although he had signed the contract with his mark, he did not understand it. For example, when his three bales of cotton were taken to the gin in West Point, he immediately turned over the one bale he felt he was owed to a local merchant, as payment on the merchant's lien on Smith's wife's land. However, Duncan felt that Smith had been negligent toward the crop and owed Duncan some payment for lost cotton, meaning that their account was not fully settled and Smith did not yet have a right to his share of the crop. Duncan thus intervened and denied Smith's right to turn over the one bale of cotton to the merchant.

Smith also showed that he did not fully understand the furnishing agreement within the contract. When asked during the trial about the terms of the contract, he stated that the landlord "was to give me one third of all I made and feed me free of charge." Smith actually used less meat than the 180 pounds allowed him in the contract, and for which Duncan later agreed to credit him. But, he was charged for meal, molasses, and other food items, which may have come as a surprise to him. Smith's lawyer also pointed out that Duncan charged Smith $0.10 per pound for flour, when it was generally selling for $0.05 to $0.06 per pound.

The series of misunderstanding between Smith and his landlord, and the merchant who had originally held the lien on his wife's land, resulted in Smith not being able to clear the lien. In frustration at his landlord's denial of his right to the one bale of cotton, Smith left the area and went to work for several months in the western part of the state, probably

as a wage laborer on a large Delta cotton plantation. Smith testified that before he left, he understood the merchant as saying Smith could pay on the lien whenever he saved some money. Smith claimed to also have written the merchant several weeks after he had left town, to tell him of his intentions and progress. It is possible that having been evicted from the Duncan plantation, so that he could not gather the remainder of his cotton (which may have already been ruined by wet weather), and having been warned of the charge of neglect against him by the landlord, Smith may have felt that going to work in another area was his best chance of raising the needed money. One would like to read the letter Smith wrote to the merchant, although it is not included in the court papers. It appears, however, that the merchant did not take kindly to Smith's absence, for he sold the lien he held on Smith's wife's land to Smith's old landlord, the Duncans. The final ruling in the case suggests that after several years, the Duncans continued to hold the lien. However, it is not clear that Smith ever managed to recover any payment for the season's work at the Duncan plantation.

This case is an example of a sharecropper who was completely furnished by his landlord, bringing only labor and being paid a share of the crop as wages. Although some tenants undoubtedly continued to farm in this manner, and be completely furnished by plantation owners on a large plantation, it is likely that increasing numbers of tenant farmers farmed in a slightly more autonomous manner, under the household-based system in which they made their own agreements with the local Vinton store.

The Vinton store continued as the major furnishing center in Vinton until the early 1890s, when a series of suits against W. E. Trotter's son W. T. Trotter, eventually also ruined W. E Trotter. W. E. Trotter ran the Vinton store mostly with the help of his sons, who continued in the family occupation as merchants. His son James married the daughter of an Aberdeen merchant (see Figure 2.2), and set up a store in the crossroads community

of Muldon, Mississippi, between Aberdeen and Vinton. In 1883 another son, W. T. Trotter, age 29, was engaged as a clerk in a West Point store. He probably began his own store in West Point around 1884. By 1888 another of W. E.'s sons, Ben, was working in W. T.'s West Point store. W. E. Trotter also did business with this daughter's husband, a Mr. Kirk.

Son W. T. Trotter opened his store in West Point with about $4,500. Although his stock had increased to $7,000 by 1886, he was described as financially "cramped" in 1887. At the same time, W. E. mortgaged several of his properties, perhaps in an effort to funnel money to his son's failing business (see Figure 2.3). From 1888 to 1892 a number of suits were brought against W. T. Trotter. W. T. was also charged with ordering goods using his father's superior credit rating. More damaging were charges that W. T. had attempted to avoid payment for goods ordered and received for this West Point store. He was accused of conspiring with his father W. E to transport the goods secretly to the Vinton store where they were intermingled with goods W. E. Trotter had ordered and paid for. The charge was that the Trotters hoped to confuse W. T.'s creditors and deny receipt of more than $10,000 worth of goods.

W. E. Trotter was initially cleared of any involvement, but an appeal to the Mississippi Supreme Court brought the ruling, on 13 May 1892, that "the circumstances tending to show confederacy are too strong and too numerous and those supporting his good faith too few and inconclusive to warrant a decree in his favor." W. E.'s Vinton property thus became liable for the son's debts and was sold at auction in September, 1892, by which time the family had temporarily fled to Louisville, Mississipi, about 45 miles away (Figure 2.2). By 1896 they had returned to Clay County, and W. E. died in Vinton in 1899 at the home of his daughter Fannie Kirk.

Testimony in these court cases provide some information about the Vinton store itself. For example, it contained one Lille safe, three showcases, six counters, one piano, and two writing desks. The property also included one steam boiler and engine, one 60-saw (blades or teeth) gin, with feeder and belt, and one Straub gristmill and belt. This property, plus the land in Section 36, was purchased by W. Porter Rankin, owner of the Rankin Manufacturing Company, maker of pants, overalls, and so forth of Nashville, Tennessee. It is likely that Rankin had been one of Trotter's suppliers. Rankin visited the area periodically, to check on business and hunt with local residents, but he either employed someone to run the store or leased it out from 1892 to 1900. In 1897-1899 it was run by a George Neville from Jackson, Tennessee, probably an associate of the Rankin Company. The Vinton store now became a subsidiary of Rankin Manufacturing Company. It was listed in 1899 and 1900 by the R. G. Dun and Company agents as doing business in the $20,000 to $40,000 range.

The breakup of the Trotter holdings had important ramifications. W. E. Trotter had been a central figure in the Vinton community. He was the person most frequently called on to handle business affairs, serve as a witness, help settle estates, and perform neighborly services. His vast acreage was purchased by several parties. Although Trotter's policies at the Vinton store are not documented, it is likely that passage of the store to an absentee owner meant changes in the extension of credit and the way business was conducted.

Rankin kept the Vinton property until January 1900, when he sold it to a local landowner, Henry D. Watson, I. The Watson family was from Monroe County, just north of Vinton, but had previously owned some property in the area during the antebellum period. Henry D. Watson had bought part of the Cox quarters south of the Vinton store in 1894, and also later acquired extensive acreage in the western part of Vinton and the

community of Strongs, Mississippi, several miles west of Vinton. Deed research suggests that the Watsons owned somewhere around 2,000 acres, a sizable holding although not half of what Trotter had controlled. Members of the Watson family lived in the old Trotter house at Vinton until 1941. They continued to operate the Vinton Store for many years, although it now became more of a commissary for farmers who rented land from the Watsons under the standing rent arrangement. Account books for 1901 and 1911 show no accounts for independent landowners. The Vinton store was no longer listed in the R. G. Dun and Company ledgers, which suggest that the Watsons obtained more of their goods from local sources compared to Trotter, and did a smaller volume of business.

Two account books of the Watson family, one dating to 1901 and one dating to 1911-1912, suggest that like Trotter, the Watsons supplied a variety of items in the Vinton store, including food, dry goods, agricultural supplies, clothing, medicines, and miscellaneous items (Watson Collection n.d.). They also took care of bills to other persons or institutions, such as fines, legal fees, donations to a local minister, loans to friends or family members, payments to others for labor on the crop, bills to another merchant, or bills to the doctor, or in one case, a final charge for a coffin. The account kept for the Watsons themselves suggest that they raised a considerable amount of hogs. Whether these were all for home use or sold to the tenants is not known. The store also carried other meat in addition to the staple of pork; beefsteaks and roasts were noted in the house account for 1912. The Watsons purchased corn from some of their tenants, and hired them for temporary labor. They often supplied cash to tenants, which was charged to the account, and sometimes noted charges that the tenant had agreed to "work out," some charge. The books show an entry in almost every account for "cash for Christmas." This custom has often been described as a bonus that tenants came to demand. While a cash advance was made available to the tenants at this time, it is perhaps misleading to characterize it as a bonus when it was charged to their account.

Comparison of prices is difficult because many entries did not specify the quantity, but might only list "meat and meal." However, comparison of the minority of cases that did specify unit prices suggests that the tenants paid an extra charge for their credit, as was customary. For example, the standard charge for meal in tenant accounts in 1911-1912 was 75 cents per bushel, while Henry D. Watson charged himself between 55 cents and 66 cents per bushel.

Watson seemed to have used the middle of December to end one year and start the charges for the next. At this time the charges were tallied, as were credits. The credits were mainly from cotton turned over to the store, but some accounts would also have other credits, such as from labor supplied during the year. Cotton was separated by quality, with the higher quality credited at 10 cents a pound and the lower quality at 8 and three-quarters a pound. The total monetary value of the cotton was then subject to a processing charge, which consisted of charges for shipping, weighing, storage, and insurance. The total processing charge was usually about six to eight percent of the value of the cotton. The resulting cotton credit, and whatever other credits the tenant might have, were then applied to the tenant's bill. The bill was composed of all store charges, plus 20 percent interest on these charges, and the yearly rent. These accounts are studies in more detail in Chapter 5.

If 1911-1912 was a representative year, most of the Watson's tenants became trapped in the system of debt peonage that has generally been used to describe the furnishing system. However, the Watsons allowed some tenants, and other blacks, to purchase land. One account in the 1911-1912 ledger included a note that a Pearce Mealer, one of their customers, had paid $43.80 as part payment on 80 acres acres of land. The balance due on the land was $456.20, indicating a total price of $500. Earlier, in 1897,

the Watsons sold Larry Keaton 40 acres on the Cox's quarters section of their property. Larry was a son of Henry Keaton and a member of the 1880 Henry Keaton household discussed above. He paid for this property with a down-payment of four 500-pound bales of cotton, with 12 more bales to be paid over the next three years, a common arrangement. The average cotton price from 1897 to 1900 was 7.14 cents per pound (U.S. Census Bureau 1960). Multiplying this by 16 bales of 500 pounds each gives a purchase price of $571.20.

These purchases were part of a slow increase in black farm ownership around the turn of the twentieth century. This trend is also documented within the study area in Chapter 5 below. Most of these holdings were 40 to 60 acres, financed by multi-year mortgages. Deed abstracts were searched for the names of other Watson tenants or close relatives. This task suggested that two other tenants who had farmed with the Watson eventually acquired land. These persons were Selvin and Andrew Lenoir. Figure 2.6 shows these and other new landowners around the turn of the twentieth century. Except for C. E. Benton, the Henry Wilson family, and J. F. Ellis, most of these landowners are black farmers who purchased small acreages.

These purchases are in a sense extraordinary. Most black tenant farmers could barely come out even at the end of a year, let along save enough to buy property. The circumstances of most of these families are not known. Larry Keaton's family background has been discussed above. Andrew Lenoir, one of those shown in Figure 2.6, was a local schoolteacher, and so would have earned a small cash salary. A study of several cotton producing counties in Texas just after World War I found that 63 percent of all black landowners had depended on assistance by family members to purchase their property (Sanders 1922). The stability of these purchases in not known. Several suits involving payment from some of those farmers shown on Figure 2.6 suggest that not all of these

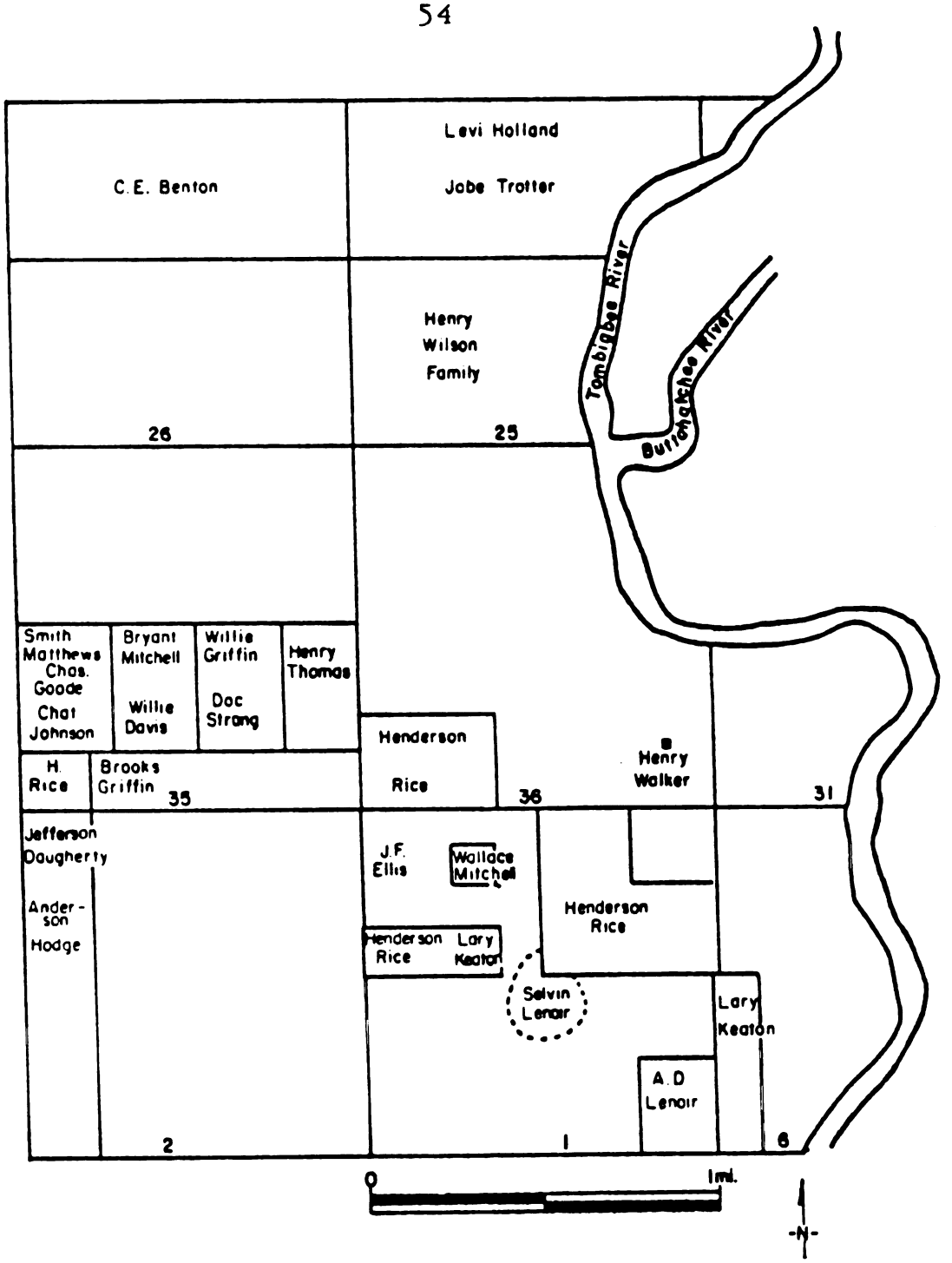

Figure 2.6. New landowners in study area.

black landowners were able to retain their land for long. This is consistent with national trends. The Census Bureau noted that one of the strongest trends in farm ownership from 1910 to 1930 was the loss of acreage by negro owners (U.S. Census 1933).

These small increases in property ownership at this time were also accompanied by increases in personal property. Most blacks had very few material possessions upon emancipation, and landlords furnished most household goods. Two Clay County personal property tax rolls have been located, one for 1886 and one for 1902. Figure 2.7 shows the distribution of personal property for District One of Clay County, which included most of the Vinton community. A small portion extended north into Monroe County. This figure shows that from 1886 to 1902, the percentage of persons with either no taxable property or property worth over $1000 declined, while the percentage of the population having taxable property valued at $101 to $1000 increased. While these taxes are generally for luxury items like clocks, watches, vehicles, weapons, silver plate, pianos, and similar items, they probably provide some indication of a slight increase in general household wealth over the period.

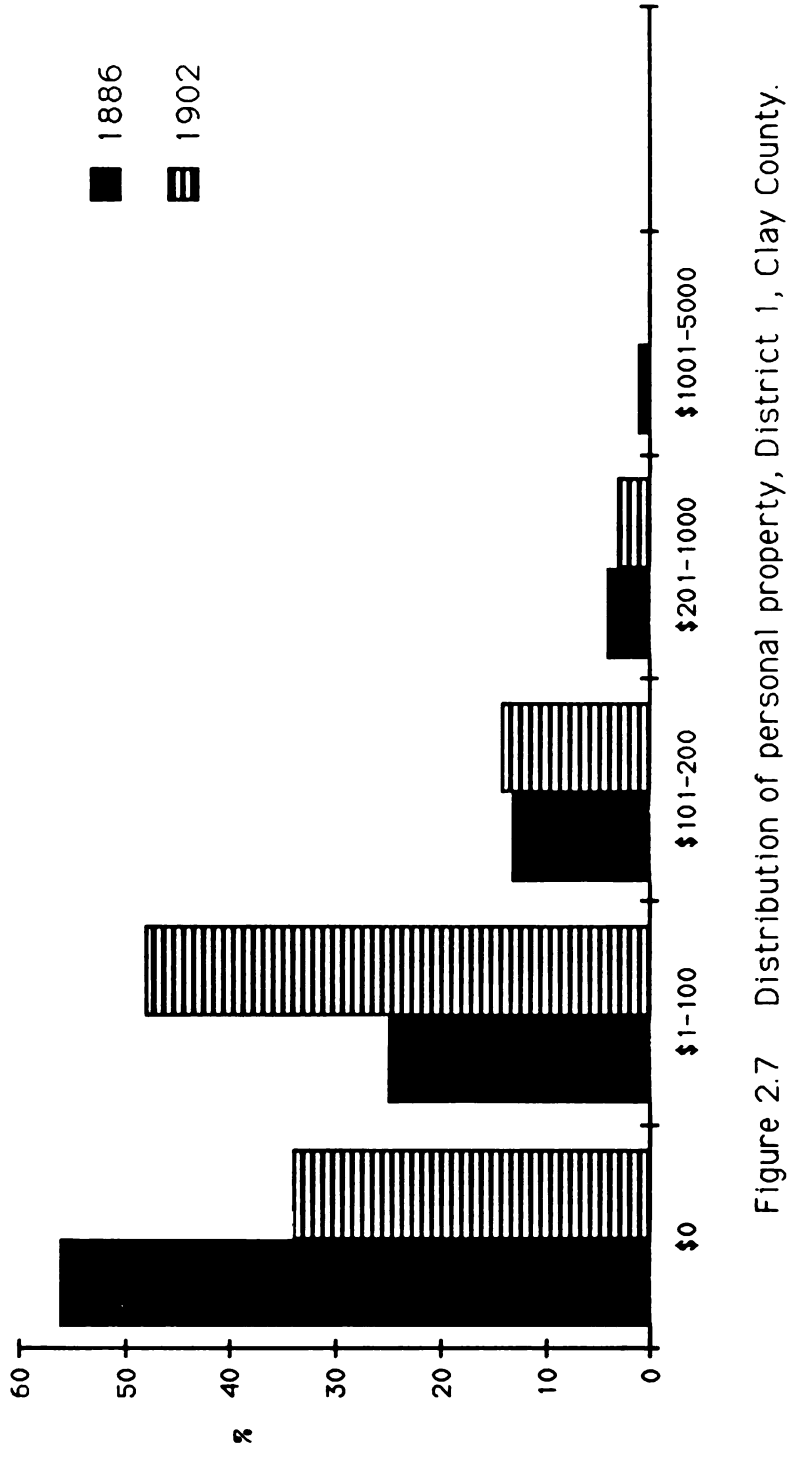

Figure 2.7 Distribution of personal property, District 1, Clay County.

CHAPTER 3

HOUSEHOLD COMPOSITION AND LIFE CYCLE

Introduction

This chapter presents the analysis of household composition and life cycle. Households, as basic units of kinship, residence, and production, are analyzed according to composition and structure. However, since households change over time, in accordance with events like marriage and childbearing, the household life cycle approach is also utilized. And finally, households are looked at from the perspective of individuals within the household.

At the outset it may be useful to define several terms and to look briefly at the age structure of the population. Instead of fitting households in the study area into a standard typology, which generally tries to encompass several variables at once, a basically descriptive system has been developed. This system describes households according to five variables -- their core type, their stage (maturity of household), the presence of lineal relatives, the presence of lateral relatives, and the presence of non-relatives. The core type of household is defined as one of the following: 1) a married couple; 2) a married couple with children; 3) a single parent with children; 4) a group of adult siblings; 5) a group of other kin; 6) a group of non-kin; or 7) persons living alone (solitary households). Second and later marriages are referred to as serial marriage. Households having a married couple as the core are called "complex" households when one of the spouses is serially married, i.e. has been married before.

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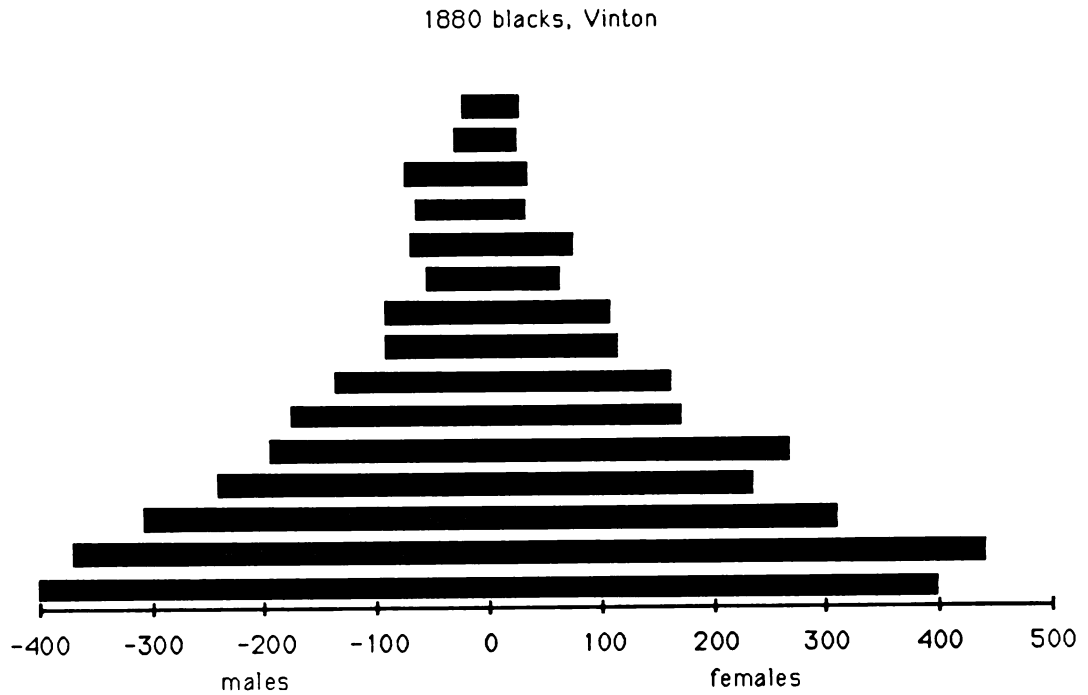
This core household can then be modified by the presence of linear relatives, in which case it is extended. If the household contains lateral relatives, it is expanded. If the household contains non-relatives, it is augmented. Each type of addition to households was given a series of codes depending upon the type of person or persons added to the household. For example, the extension category was coded 1 for no extension, 2 for mother, 3 for father, 4 for both parents, and so forth. The complete list of extension, expansion, and augmentation categories is given in the Appendix. The categories of extension, expansion, and augmentation are not mutually exclusive, and each household is coded separately for each type of addition. The only typological terms used in describing the households are "nuclear" family household, meaning a married couple with or without children, and the "stem household" composed of a household core of parent(s) extended by a married child and spouse.

Households are also described by stages of maturity. These stages are based upon a combination of the age of the wife (or head if female) and the ages of children in the household, and are designed to measure the household life cycle. The mother's age is used instead of the father's since it is more closely tied to the physical reproduction of the household (mother's age was also used by Shifflett [1975] although the present analysis did not follow his stages). Household stage is based entirely on the core household members, and is independent of extension, expansion, or augmentation. Although these household stages do not actually follow any one household through time, they help overcome the static nature of typological analysis. The complete breakdown of stages, either 1 to 5 or in some cases 1 to 3 to reduce the number of potentially zero cells, is given in the Appendix. In all cases Stage 1 is the youngest stage, and either Stage 3 or Stage 5 is the oldest stage.

In addition to these classifications, households are also described by the number of persons of various categories within them. These categories of persons are nuclear family members, non-nuclear family members (called "extra" family for convenience), non-family members, and total "extra" members, which is the sum of the extra family and non-family members. Household members are also classified as consumers or workers, for analysis of dependency ratios. Many systems of classifying consumers and workers exist. This analysis utilizes the same parameters as used by Chibnik (1986). This scale ranks males and females on a scale of 0.1 to 1.0 by levels of consumption and production, according to age. It is presented in the Appendix.

Age structure is a basic aspect of a population that can have many long-reaching ramifications. Figures 3.1 thru 3.4 illustrate the age structure of the Vinton and West Point samples. Since the sample sizes vary considerable from subsample to subsample, each subsample is plotted separately. This allows easier comparison of the general age structure of each population, regardless of differences in Ns. Each horizontal bar represents a five year age interval. The first bar represents the 0-4 year olds, the second bar the 5-9 year olds, and third bar the 10-14 year olds, and so forth until the final bar, which groups all persons age 70 and older. There is considerable irregularity in the pyramids, which is partly the result of small sample sizes. Yet, these figures point to important differences between the black and white samples, and between the urban and rural samples. One of the more ovbious differences is the relatively high number of persons in the 0-4 and 5-9 age groups (the bottom two horizontal bars) for the Vinton population. This is congruent with the high fertility of this group, as discussed in Chapter 4.

Another striking finding is the relatively low number of middle aged black men, both in the Vinton and West Point samples. This is true when the age structure of black men is compared to white men or to black women. The reason for this is not known,



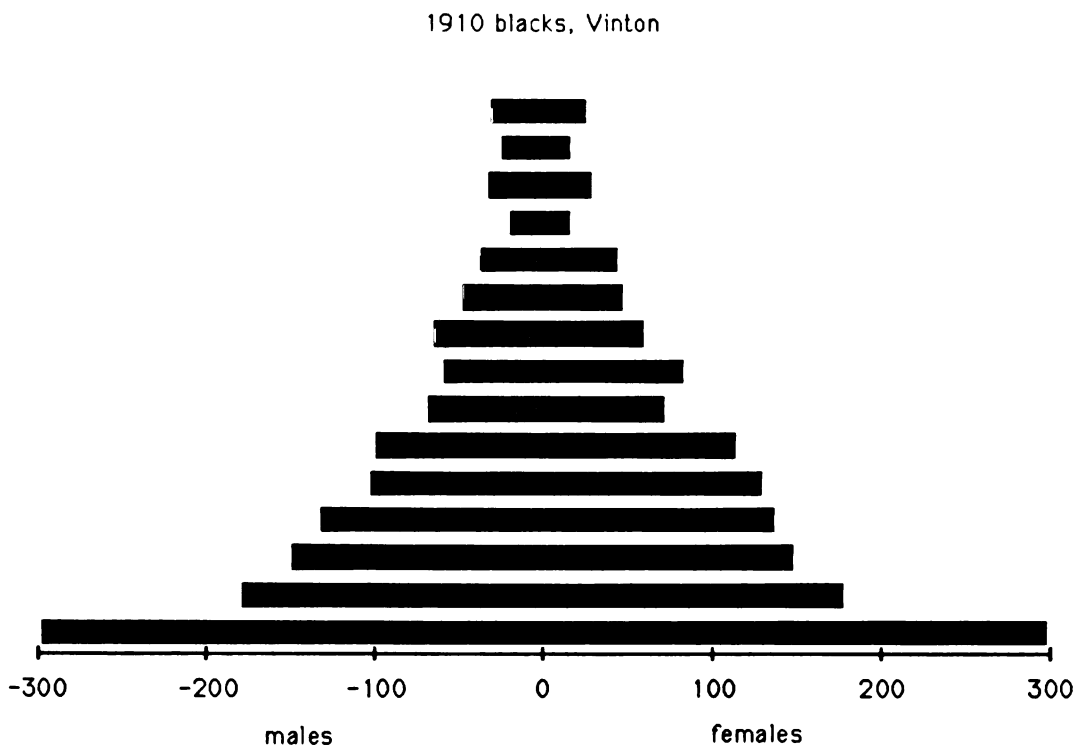
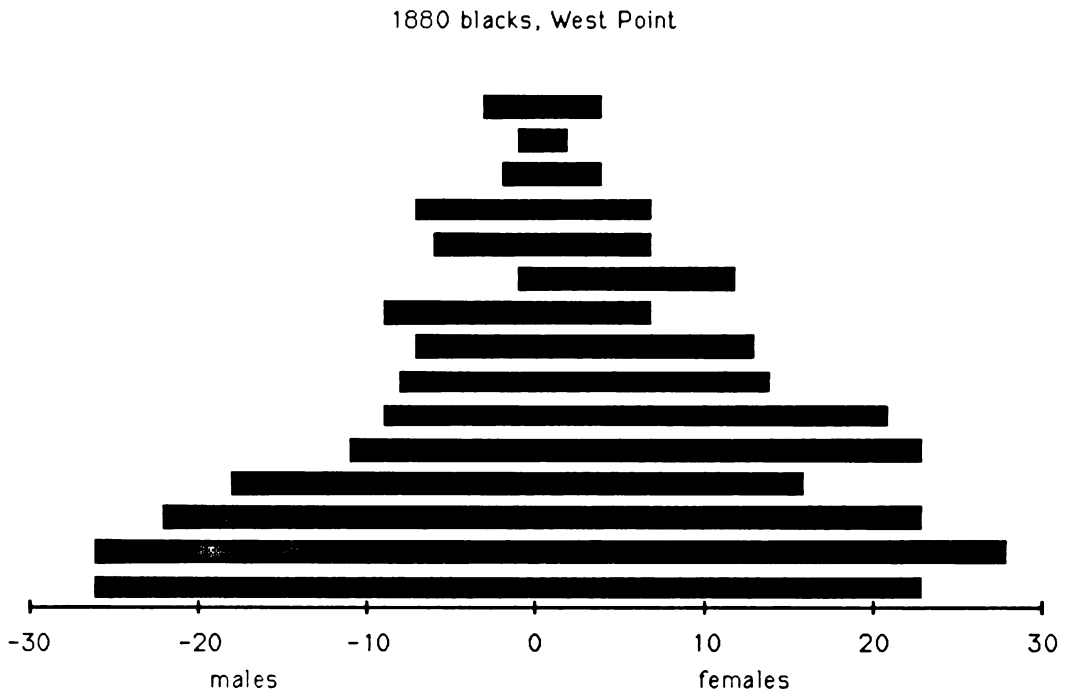


Figure 3.1. Population structure, Vinton, black sample.

Figure 3.2. Population structure, Vinton, white sample.



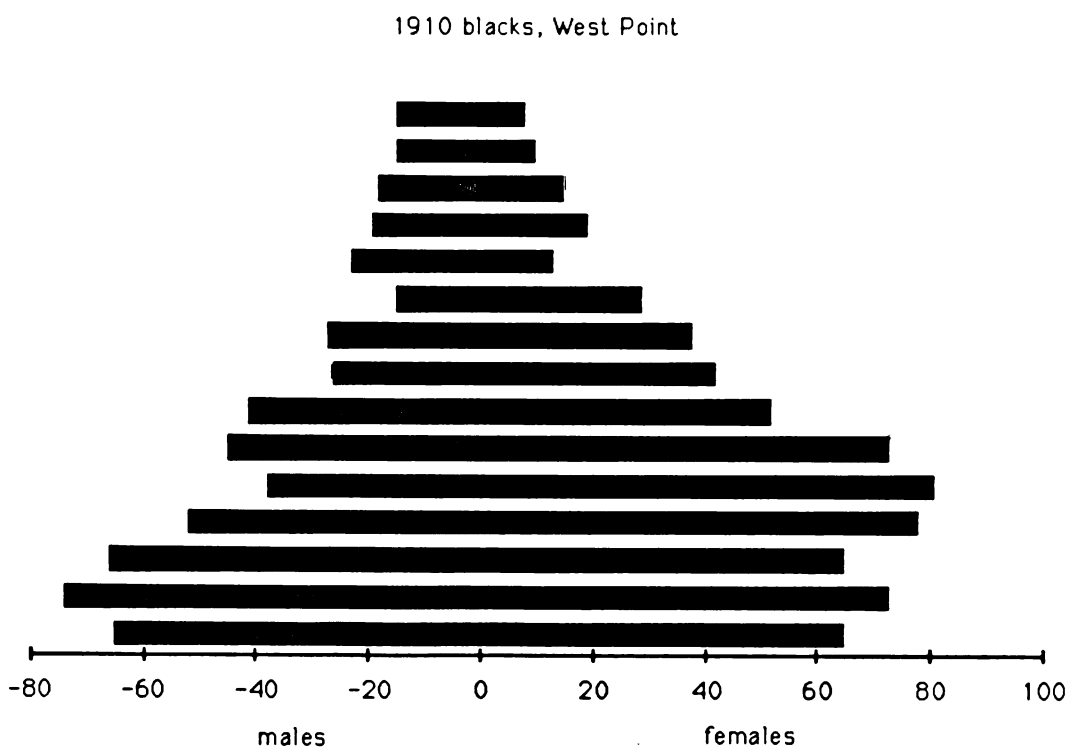


Figure 3.3. Population structure, West Point, black sample.

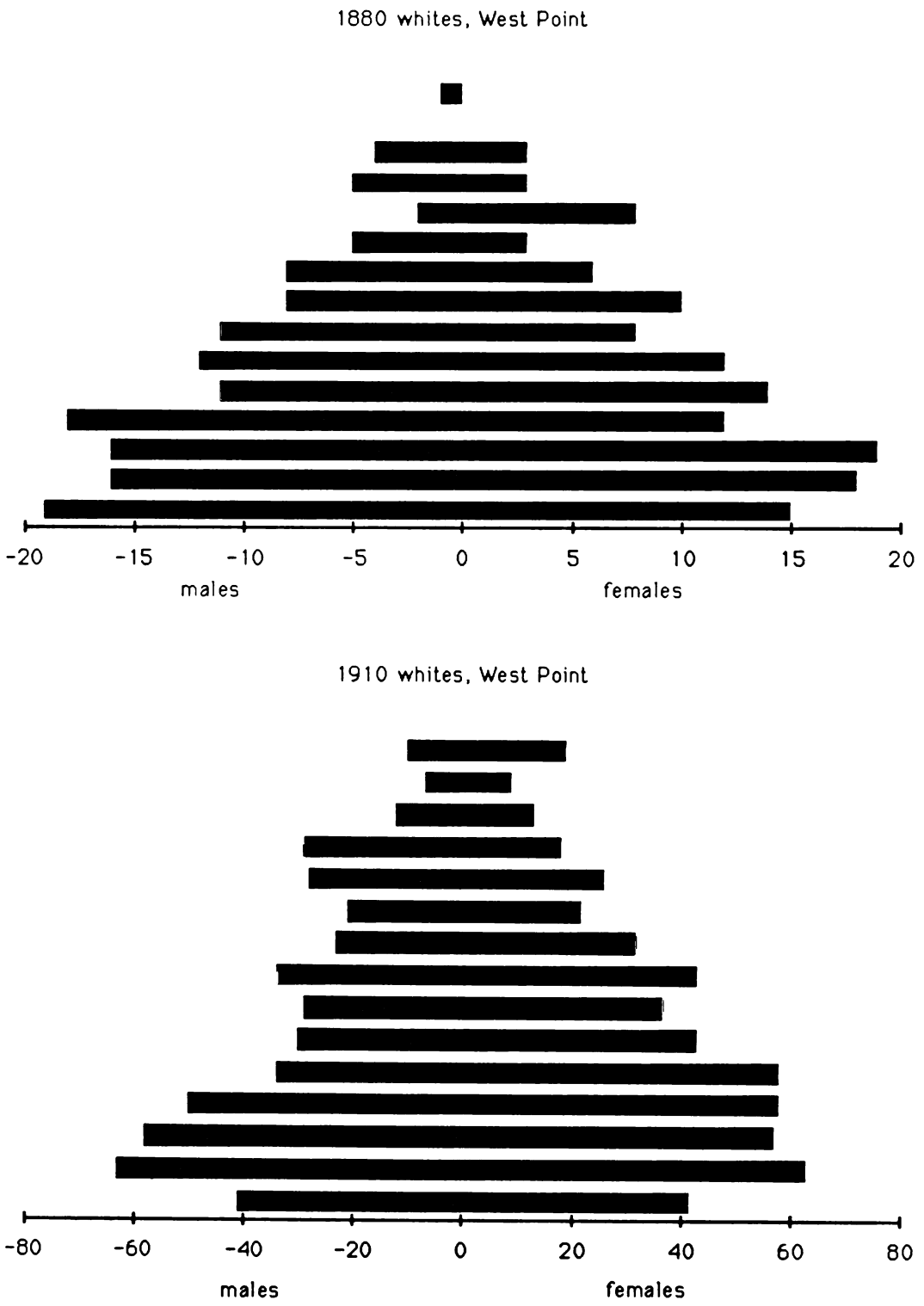


Figure 3.4. Population structure, West Point, white sample.

although the Civil War is a possible contributing factor, both from mortality and from higher out-migration by black men, compared to black women. This effect would be more likely for the 1880 sample. Another obvious feature of the age structure is that there are more middle-aged black women in West Point than in Vinton. This is probably because of the ease with which black women could find jobs in towns. However, for most age groups there are still as many or more black women than black men in Vinton.

The white population generally shows a fuller age structure, indicating relatively more persons in the middle ages. There is a reduction of males in the 35-39 and 40-44 group for the 1880 Vinton sample, and in the 40-44 and 35-39, 45-49, and 50-54 groups for the 1880 West Point sample. These age groups would have been 15 to 39 years old during the Civil War, and their reduction in 1880 may be the result of war-related mortality or morbidity.

One of the important findings of this exercise is that there is not a great deal of change in the age structure of any group illustrated from 1880 to 1910. Generally there is more variation between the different subsamples for 1880 or for 1910 than between one subsample over time. This is important to keep in mind when comparing household compositional changes over time, and in looking at changes in fertility from 1880 to 1910. It is suggested that change in age structure is probably not a major explanatory variable for this population. A consistent change in the age structure between the ages of 20 and 50 would be of most importance in comparisons of fertility. There is a noticeable drop in the 0-4 age group from 1880 to 1910 for several subsamples, which is congruent with the decline in fertility documented in Chapter 4.

Household Composition

Tables 3.1. and 3.2. summarize the numerical descriptions of household composition. The variable total persons is more homogeneous within each time period than within the various racial/tenure groupings. For example, one dominant trend is the reduction in household size over time, for every subsample. The smallest mean household size in 1880, 4.7 persons for white sharecroppers, is near the largest mean household size in 1910, 4.75 for white renters. It can also be seen in Tables 3.1 and 3.2 that the largest reduction in household size is contributed by the categories extra family and non-family, which combine to make the category extra persons. Extra persons decline from a range of 1.7 to 2.6 persons in 1880 to a range of 0.33 to 0.53 persons in 1910. This decline is so severe that it has a larger effect overall than the change in nuclear family size, which actually increases over time. These trends are also illustrated in Figures 3.5 and 3.6. These figures illustrate the extreme declines in extra family and non-family persons in households, as well as the overall decline in total members and increase in nuclear family members.

The numbers of consumers and workers were calculated only for the 1880 sample, so they could be used in conjunction with the analysis of agricultural production. These measures show slight variation by racial and tenure subsamples, with less variation in the summary measure of the dependency ratio. A final variable presented in Tables 3.1 and 3.2 is mean age of household head. Owners are, on the average, older than renters, for both blacks and whites. This pattern is stronger in 1910 than in 1880.

Tables 3.3 and 3.4 present information on type of household core. It is immediately apparent that the nuclear family household (types 1 or 2) prevailed. At least 70 percent and usually higher percentages of all tenure and racial groups were formed around a

Table 3.1 Miscellaneous household measures, 1880, expressed as means.

	age of hh head	N total persons	N nuclear family	N total family	N extra family	N extra persons	N non-family	N consu-mers	N work-ers	dratio (c/w)
Group N										
blow 22	46.0	5.5	3.1	4.4	1.4	2.6	1.1	3.51	2.77	1.28
blre 189	43.3	5.8	3.1	4.8	1.7	2.7	1.01	3.56	2.82	1.27
blsh 192	40.8	5.3	2.8	4.7	1.93	2.6	.66	3.43	2.69	1.27
whow 64	44.0	5.6	3.6	4.6	.93	2.0	1.1	3.89	3.36	1.26
whre 26	40.0	5.0	3.0	4.3	1.3	2.0	.70	3.36	2.95	1.13
whsh 12	38.3	4.7	2.9	4.0	1.1	1.7	.67	3.25	2.78	1.18

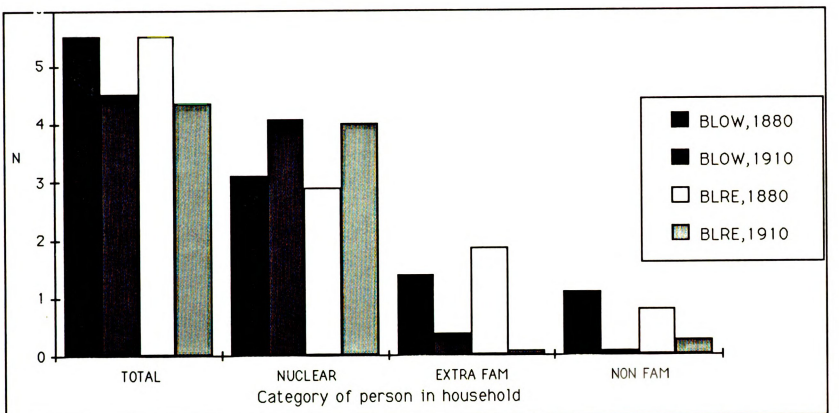


Figure 3.5. Comparison of hh composition, 1880-1910, black hhs, Vinton.

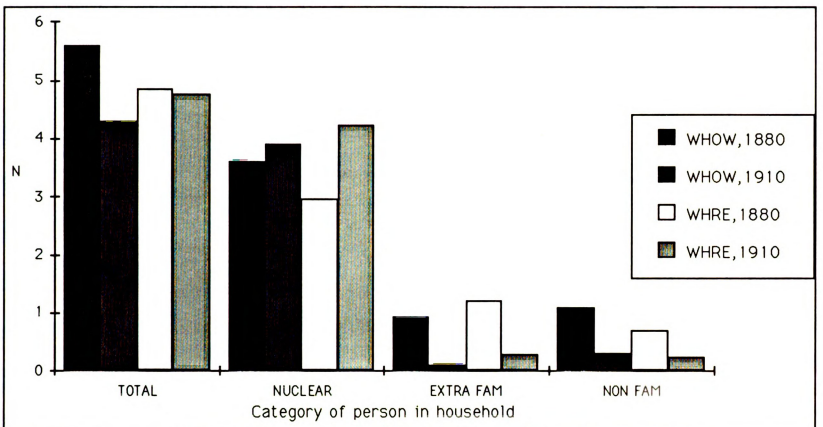


Figure 3.6. Comparison of hh composition, 1880-1910, white hhs, Vinton.

Table 3.2. Miscellaneous household measures, expressed as means, 1910.

Group	age of hh head	N, total persons	N, nuclear family	N, total family	N, extra family	N, extra persons	N, non-family
blow	48.4	4.52	4.07	4.15	.37	.45	.08
blre/sh	39.4	4.34	4.01	4.26	.08	.33	.25
whow	47.66	4.31	3.90	4.21	.09	.41	.31
whre	40.9	4.75	4.22	4.46	.29	.53	.24

Table 3.3. Household types, by race and tenure groups, 1880.

(table gives percentage of each group in following household types)

Group N	type 1 nuclear	type 2 nuclear +kid	type 1 + 2	type 3 single par	type 1 +2+3	type 4 adult sibs	type 5 other kin	type 6 non kin	type 7 solitary
blow 22	4.5	81.8	86.3	9.1	95.4	0	0	4.5	0
blre 189	12.8	72.3	85.1	9.0	94.1	.5	.5	1.6	3.2
blsh 192	12.5	70.8	83.3	11.5	94.8	.5	.5	2.1	2.1
whow 64	3.1	67.2	70.3	14.1	84.4	7.8	1.6	1.6	4.7
whre 26	3.8	69.2	73.0	11.5	84.5	3.8	0	3.8	7.7
whsh 12	16.7	66.7	83.4	0	83.4	0	0	16.7	0

Table 3.4. Household types, by race and tenure groups, 1910.

(table gives percentage of households from each race/tenure group in following household types)

Group N	type 1 nuclear	type 2 nuclear +kid	type 1+2	type 3 single parent	type 1+2+3	type 4 adult siblings	type 5 other kin	type 6 non kin	type 7 solitary
blow 67	14.9	64.2	77.1	3.0	80.1	1.5	3.0	3.0	10.4
blre/sh 482	18.7	62.8	81.5	11.0	92.5	1.0	1.9	.2	4.4
whow 45	8.9	66.7	75.6	11.2	86.8	4.4	4.4	2.2	2.2
whre/sh 45	20.0	68.9	88.9	11.1	100	0	0	0	0

household core of a married couple (with or without children). Tables 3.3 and 3.4 show that there was overall similarity in household type between the black and white samples, in 1880 and 1910. In both time periods, white owners had the lowest incidence of nuclear households, and were especially numerous in the categories of adult siblings and other kin. This pattern of adult siblings and other kin forming the core of white households may be related to the management and transmission of property for the white sample.

Although the same pattern is present for the black sample in 1910, the difference between black renters and black owners is not as large as the difference between white renters and white owners. In contrast with white owners, black owners in the 1880 data set have the highest incidence of nuclear family core structure, with no households formed by adult siblings or other kin. These core types, however, are represented in the black owning group in 1910, and in larger percentages than among the black renters. The reason for this change is not obvious, but property ownership in the black sample, which was increasing over time although it remained much lower than the white sample, may have affected household structure. Household type 3, single parent with children, shows little consistency between the subsamples. In 1880, type 3 households were more common among whites than blacks for owners and renters, but not for sharecroppers. In 1910 type 3 households were of nearly equal incidence for all groups, except for black owners.

Most households were headed by a man. If an adult man and woman were both in the household, usually as a married couple, the man was almost always designated the head of the household by the census taker. The designation of the man as head and the woman as spouse when both were present is taken as given by the census taker and is here intended to convey information about joint residence rather than relations of power within the household. Females did head households in which there were adult male boarders, and in a few instances were designated the head with the man as spouse. The reason for

this designation is not known, but possibilities include the women owning the house or farm separately. The incidence of households headed by women is presented in Table 3.5. The most obvious trend is the increase in this variable from 1880 to 1910, for all subsamples and especially for black renters, for whom it doubled. White owners showed the highest incidence of female-headed households, both in 1880 and 1910. Given the prominence of the black female-headed household in sociological analysis, this variable is explored further below, from the perspective of women of various ages within households.

Table 3.6. presents statistics on numbers of persons and the dependency ratio in 1880, by household types. For the most part, tenure or racial variables are less important than household type in the variation of the household demographic measures. The dependency ratio (consumers/workers) is presented in the last column (see Appendix for age breakdowns), and shows much greater variation within household types.

As mentioned above, additions could be made to households, independent of the core household type. Tables 3.7-3.12 present this perspective on household composition, with only the more common categories shown in the tables. The first type of addition considered is household extension, or the inclusion of lineal relatives (Tables 3.7 and 3.8). Most households were not extended, and there is an overall trend, even if weak, toward decreased extension from 1880 to 1910. The highest incidence of extension in 1880 was among black renters and in 1910 among black owners. More black households were extended, although white sharecroppers (together with white renters in 1910) also had a large incidence of extension, predominantly by the addition of parents of the head or spouse. Also common, especially for black households, was the inclusion of a daughter and her children. The "stem" household, in which a married child resides with the parents, was very rare in 1880 and more common in 1910, especially for the white sample.

Table 3.5. Female-headed households, Vinton, 1880 and 1910 compared.

	% female headed 1880	% female headed 1910
Black	06	14
rent (N 1880= 381, N 1910 = 482)	06	13
own (N 1880 = 22, N 1910 = 67)	04	07
White	08	11
rent (N 1880 = 38, N 1910 = 45)	05	07
own (N 1880 = 64, N 1910 = 45)	09	15

Children living with grandparents, without their parents, was also an important type of household extension, especially for the black sample. Raper's study of Green and Macon Counties, Georgia in the late 1920s and early 1930s revealed a similar pattern; 2.5 percent of white children versus 8.7 percent of black children lived with grandparents (Raper 1968:71). In 1910 Vinton, grandchildren were most common in female-headed black households, especially female-headed households that owned their farms. These households probably had more resources to care for grandchildren.

The category of blended or complex households was tabulated separately in 1910. This tabulation was not possible for the 1880 data, because of the less detailed information on marital status. In 1910, complex households, in which at least one partner had been previously married, had the highest incidence of extension. These households would have had a larger pool of potential ancestors and descendents (including those from past marriages) to draw upon.

Table 3.6. Demographic measures by household types and race/tenure groups, 1880, means.

Type	Group N	total persons	total family	nuclear family	consumers	workers	dratio
1-2	blow 19	5.8	4.9	3.2	3.2	3.8	1.25
1-2	blre 161	5.9	5.06	3.2	3.7	3.0	1.26
1-2	blsh 160	5.5	4.9	2.8	3.5	2.8	1.25
1-2	whow 46	6.3	5.2	3.8	4.2	3.6	1.18
1-2	whre 19	5.6	4.9	3.1	3.6	3.1	1.18
1-2	whsh 10	5.3	4.6	3.2	3.6	3.0	1.2
3	blow 2	3.5	2.0	2.5	2.5	2.05	1.25
3	blre 17	5.4	4.2	2.3	3.0	2.06	1.09
3	blsh 22	5.6	4.6	2.5	3.6	2.5	1.44
3	whow 9	4.8	4.1	3.7	3.8	3.2	1.15
3	whre 3	5	4.7	4.0	3.5	3.4	1.03
3	whsh 0	na					
4-5	blow 0	na					
4-5	blre 2	9	3	6	5.0	4.5	1.09
4-5	blsh 6	5.0	5.0	3.0	4.0	2.7	1.48
4-5	whow 1	4.2	2.5	3.8	3.4	3.2	1.06
4-5	whre 0	2.0	2.0	2.0	1.8	2.0	.9
4-5	whsh 0	na					
6	blow 1	4.0	1.0	2.0	2.7	2.3	1.17
6	blre 3	4.3	1.0	2.67	2.3	2.2	1.04
6	blsh 2	2.75	1.0	2.25	2.32	2.2	1.06
6	whow 1	5.0	1.0	2.0	2.7	2.0	1.35
6	whre 1	4.0	1.0	3.0	2.7	3.0	.9
6	whsh 2	1.5	1.0	1.5	1.4	1.5	.95
7	blow 8						
7	blre 6	2.3	1.0	1.7	1.8	1.5	1.15
7	blsh 4	1.0	1.0	1.0	1.0	1.0	1.0
7	whow 3	1.5	1.0	1.5	1.5	1.5	1.0
7	whre 2	na					
7	whsh 0	na					

Table 3.7. Household extension, by race and tenure groups, 1880.

(table gives percentage of households from group having specified extension)

	none	mother	parents	da., + kids	da,husb, + kids	grandkids alone	combi-nations	grand-mother
Group N								
blow 22	89.2	4.5		13.16				
blre 189	79.3	5.3		6.4	1.1	5.9	1.6	.5
blsh 192	82.3	3.8	.5	5.7		2.1	1.0	
whow 64	90.6	9.4						
whre 26	88.5	3.8		3.8			3.8	
whsh 12	83.3	16.7						

Table 3.8. Household extension, by race and tenure groups, 1910.

(table gives % of households from each race/tenure group having specified extension)

Group N	none	parents	da + kids	child, kid, + spouse (STEM)	grandkids alone	grparents
blow 67	82.1	3.0	4.5	1.5	7.5	
blre/sh 482	88.2	5.0	1.4	.2	5.0	.2
whow 45	86.7	6.7		2.2	2.2	
whre/sh 45	84.4	13.3		2.2		
Blended HHs						
blow 26	74.0		3.9	13.1	9.1	
blre/sh 145	82.2	9.3	.8		7.6	

Table 3.9. Household expansion, by tenure and race groups, 1880.

(table gives percentage of households of each race/tenure group having specified expansion)

	none	brother	sister	mult sibs	all sibs	sister, kids	brother wife, kids	sister, husb., kids	niece or nephew	cousins	aunt	uncle	combi-nation	?
Group														
blow 22	90.9	4.5			4.5	4.5								
blre 189	88.3	2.7			2.7	1.6	.5		5.3	.5			.5	.5
blsh 192	89.1	2.1	1.0	1.6	4.7	1.0		.5	3.6				.5	.5
whow 64	82.8	3.1	4.7	3.1	10.9				4.7		1.6			
whre 26	88.5	3.8	3.8	3.8	11.4									
whsh 12	75.0	16.7			16.7							8.3		

Table 3.10. Household expansion, by tenure and race groups, 1910.

(table gives % of households of each race/tenure group having specified expansion)

Group, N	none	siblings	sis+ kids	bro, wife, kids	sis, husb., kids	niece or neph	cousins	combination
blow 482	92.5	3.0				4.5		
blre/sh 67	91.9	2.3	1.5			3.5	.2	.4
whow 45	91.1	6.7					2.2	
whre 45	95.6	4.4						

Table 3.11. Household augmentation, by race and tenure groups, 1880.

(table gives percentage of households of each group having specified augmentation)

Group N	none	boarders	servants	boarders & servants	friend
blow 22	77.3	4.5	9.1	9.1	
blre 189	75.0	3.6	19.1	2.1	
blsh 192	87.0	6.7	5.7	.5	
whow 64	60.9	6.3	29.8	3.1	
whre 26	76.9	0.0	11.5	7.7	3.3
whsh 12	83.3	0.0	16.7		

Table 3.12. Household augmentation, by race and tenure groups, 1910.

(table gives % of households in each race/tenure group having specified augmentation)

Group N	none	boarders
blow 67	85.1	15.0
blre/sh 482	95	4.9
bl-Female Hd 66	89.0	10.095
whow 45	91.1	8.9
whre/sh 45	80.0	19.9
wh-Female Hd 10	70.0	30.0

Extension covers lineal descendents and ancestors. Lateral relatives of the household core are classified under the expansion category. Generally speaking, household expansion was even less common than household extension, except for white owners and white sharecroppers in 1880 (Tables 3.9 and 3.10). The white sample clearly showed more household expansion in 1880, especially by the inclusion of brothers and sisters, compared to the black sample or the white sample of 1910. The presence of nieces and nephews in households, without their parents, was more common for the black samples, in both 1880 and 1910.

The final addition to households is non-relatives, or augmentation (Tables 3.11 and 3.12). With the exception in 1880 of one persons noted as a "friend," perhaps to indicate a temporary visitor, non-relatives are described as boarders or servants. The determination of someone as a boarder or servant is accepted directly as given by the census enumerator, presumably from information provided by household members. It is possible that some boarders and servants were related to the head of the household and his/her family, but not closely enough for the residents or census enumerators to describe the relationship. The overall trend from 1880 to 1910 is for less augmentation over time (see also Figures 3.5

and 3.6), but with different trends for boarders versus servants. The incidence of boarders in households increased from 1880 to 1910, while the incidence of servants in households decreased to zero. The complete absence of servants in 1910 is somewhat curious. Some of those persons listed as boarders in the 1910 census of Vinton were listed with the occupation of "laborer." Some boarders may have worked for the household in which they resided, and perhaps would have been more accurately described as servants. However, the designations given by the census have been followed. White households had more servants in 1880 than did black households, but not by much. Black households had more boarders in 1880 than did white households, while in 1910 white households had more boarders than did black households. Female heads were tabulated separately in 1910, and showed a high incidence of boarding, especially for the white sample.

The Household Life Cycle

The above discussion looks at all households at one time, regardless of the age of the head or the ages of children, or other factors related to the life cycle of the household. However, the demographic circumstances of households change as they mature, and these changes could have important effects on household composition and the economic welfare of the household. Table 3.13 shows basic household composition for 1880 Vinton households, subdivided by household stage. As one would expect, the number of nuclear family members in the household changes dramatically according to household stage. The size of households peaks in stage 3, which is a middle stage when some (but not all) children are over fourteen years of age. However, the number of consumers and workers does not peak until stage 4, which is a slightly more mature stage. These differences are illustrated in Figures 3.7, 3.8, 3.9, and 3.10. Each clustering of vertical bars in a figure is one separate tenure and racial grouping. The series of bars within the cluster represent that tenure and racial grouping's changes over household time. That is, the clusters capture

changes over the household life cycle. The dependency ratio, or the consumer/worker ratio, which is more "favorable" the lower the value, is highest in stages 2 and 3. This is when there are the most children in the household. The dependency ratio begins to decline in stage 4 and declines further in stage 5, the most mature stage (Figure 3.11). Within the stages, the consumer/worker ratio and other variables are fairly consistent across tenure and racial groups, although there are minor variations according to each grouping (see Figures 3.7-3.11).

Not only do overall household numbers vary by household stage, but the types of additions to households, extension, expansion, or augmentation, vary by household life cycle stage as well. The category of household extension is not independent of household stage. This is because lineal relatives are linked in time with the core household persons. For example, grown children are not available as adult additions to their parent's household until the original household has reached a sufficient stage for the children to be adults. Or, parents are generally not available to live with adult children until all of their own children, or the children in question's siblings, have left the original household.

However, other categories of household addition, like expansion with lateral relatives, and especially augmentation with non-relatives, are less intimately connected with the household life stage. This is not to say that household stage does not affect these aspects of household composition, only that the effect is less closely tied to the household's life cycle stage. Table 3.14 presents summary measures for household type,

Table 3.13. Demographic measures by stages and race/tenure groups, 1880, expressed as means.

HH Stage	Group N	total persons	total family	nuclear family	consumers	workers	dratio consumers/workers
1	blow 0	na					
1	blre 10	2.7	1.9	2.7	2.3	2.3	.99
1	blsh 11	2.4	2.0	2.2	2.0	2.0	.99
1	whow 2	4.0	3.0	4.0	3.6	3.5	1.02
1	whre 1	1.0	1.0	1.0	1.0	1.0	1.0
1	whsh 2	3.5	2.0	2.0	2.5	1.8	1.35
2	blow 8	5.4	4.9	2.25	3.2	2.5	1.3
2	blre 70	5.9	5.3	2.5	3.3	2.5	1.3
2	blsh 89	5.4	4.9	2.3	3.1	2.4	1.3
2	whow 20	6.2	4.9	3.0	3.6	3.0	1.2
2	whre 11	6.0	5.1	2.8	3.5	2.8	1.2
2	whsh 4	6.7	5.7	1.1	.32	.84	.29
3	blow 4	7.75	4.75	4.25	4.8	3.6	1.3
3	blre 38	7.6	6.8	3.6	4.4	3.2	1.4
3	blsh 35	7.1	6.2	3.3	4.4	3.3	1.3
3	whow 12	7.3	6.5	4.4	4.9	3.9	1.27
3	whre 1	6.0	6.0	3.0	3.8	3.0	1.26
3	whsh 0	na					
4	blow 3	7.3	7.0	4.7	5.3	3.8	1.4
4	blre 21	7.1	5.7	4.0	4.7	3.6	1.3
4	blsh 22	6.5	5.9	3.8	4.5	3.5	1.3
4	whow 8	6.4	5.5	4.9	5.1	4.7	1.13
4	whre 4	6.25	6.25	3.5	4.12	3.45	1.2
4	whsh 2	6.5	6.5	5.0	5.4	4.65	1.17
5	blow 6	3.7	3.0	2.8	2.9	2.6	1.1
5	blre 39	4.3	2.8	3.4	3.2	2.8	1.1
5	blsh 23	3.7	2.8	3.1	3.1	2.9	1.0
5	whow 11	4.2	3.8	3.9	3.7	3.4	1.1
5	whre 5	4.0	3.2	3.8	3.4	3.4	1.0
5	whsh 2	3.0	3.0	3.0	2.8	2.7	1.03

Table 3.14. Household composition, 1880.

(table gives percentage of households in given stage that are in specified household type, by household stage)

		Household type					Extension			Expansion		Augmentation		
Stage		nuclear	single parent	adult sibs	non kin	solitary	none	parent (s)	wid. or marr. kids	none	siblings	none	boar-ders	ser-vants
	Group													
young	blow	100	0	0	0	0	100	0	0	100	0	66	0	16
	blre	95	03	0	0	01	87	11	0	80	10	78	03	18
	blsh	94	05	0	0	0	90	09	0	85	09	85	04	08
	whow	95	0	05	0	0	80	19	0	8	04	57	09	28
	whre	91	0	0	0	08	83	08	0	75	25	91	0	0
	whsh	100	0	0	0	0	60	40	0	40	40	80	0	20
mid	blow	100	0	0	0	0	88	0	11	77	22	88	11	0
	blre	84	14	01	0	0	80	03	16	95	0	75	04	17
	blsh	75	24	0	0	0	74	07	16	97	01	88	07	04
	whow	83	16	0	0	0	95	04	0	83	16	54	04	37
	whre	80	20	0	0	0	100	0	0	100	0	100	0	0
	whsh	100	0	0	0	0	100	0	0	100	0	100	0	0
mat	blow	66	33	0	0	0	50	16	33	100	0	83	0	16
	blre	82	12	0	02	02	58	02	35	87	02	76	02	20
	blsh	100	0	0	0	0	82	04	13	86	0	95	0	04
	whow	50	50	0	0	0	100	0	0	80	10	80	0	10
	whre	75	25	0	0	0	75	0	25	100	0	50	0	50
	whsh	100	0	0	0	0	100	0	0	100	0	100	0	0

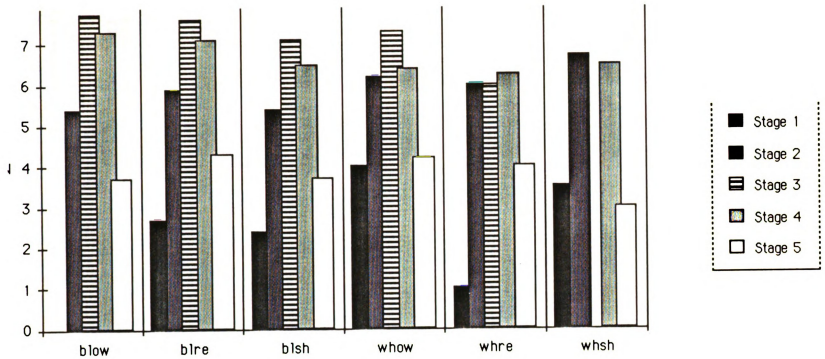


Figure 3.7. Total persons, by life stage.

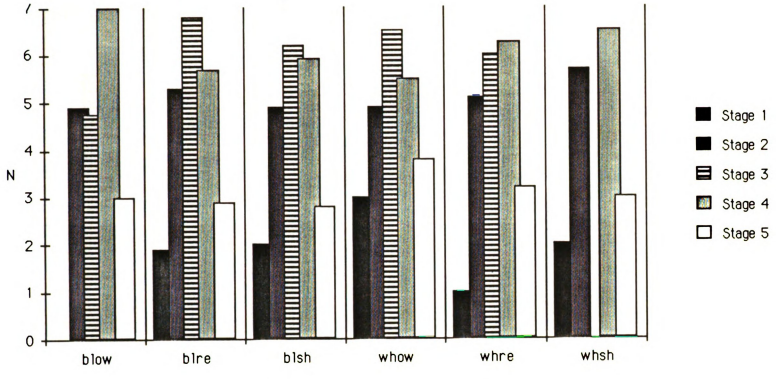


Figure 3.8. Total family, by life stage.

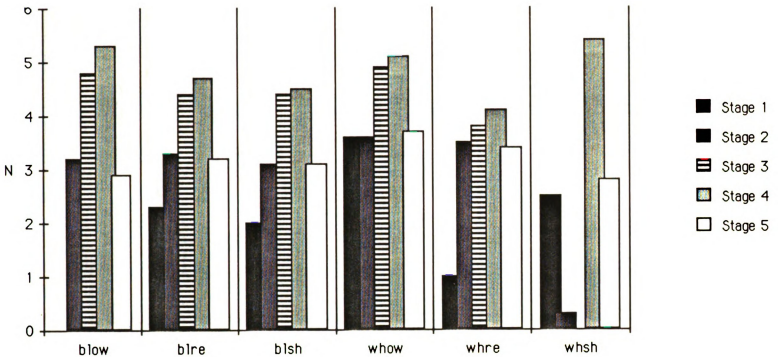


Figure 3.9. Consumers by hh life stage.

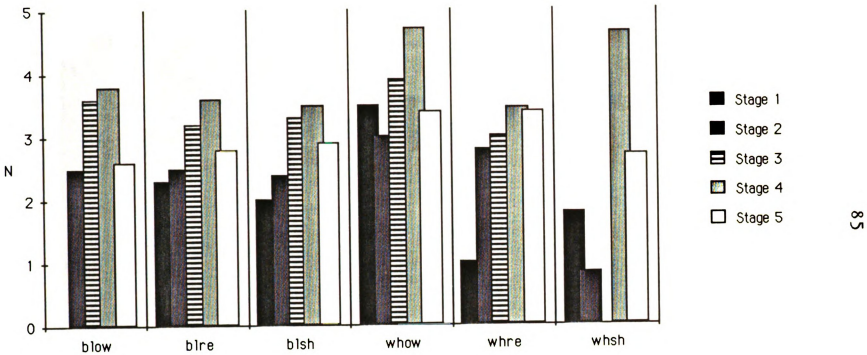


Figure 3.10. Workers by hh life stage.

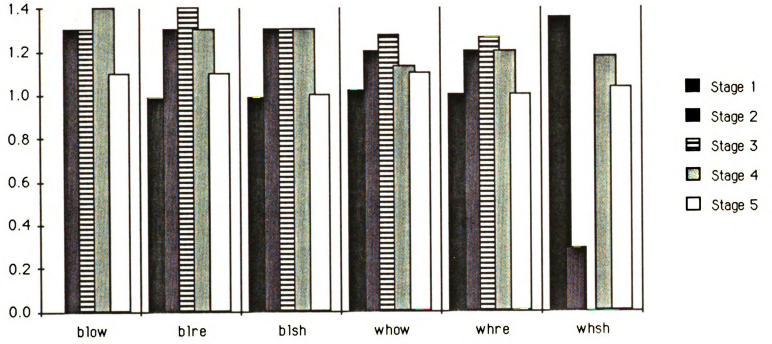


Figure 3.11. Dependency ratio, by hh life stage.

extension, expansion, and augmentation by three household life cycle stages, young, middle, and mature. Expansion is generally slightly higher in the middle stage, although the presence of siblings is most common in the early stage, perhaps before the siblings go into households of their own. The incidence of adult siblings of the household head or spouse in the household continues to be high in the middle stage of the household life cycle for black owners. The relationship of augmentation to household life cycle is not clear. Servants are more common than boarders at every stage. Boarders are especially rare in the mature stage.

Positions within Households.

In contrast to the data presented above, which is from the perspective of the household itself, Vinton household composition can be viewed from another perspective, that of individuals within households. It is possible to look at the numbers of individuals within different types of households. This produces similar results as the household classification discussed above, except when certain types of households are smaller or larger than average. For example, solitary household make up 10.4 percent of black owning households in 1910. But since these households have the smallest number of persons (by definition one person), less than 10 percent of persons in black owning households lived in solitary households.

More useful is the relative importance of various positions within households. Position within households is a standard data category provided by the census taker, defined by the relation of each member to the head of household. The possible categories are head of household, spouse, child of head, parent of head, niece or nephew, cousin, sibling, aunt or uncle, grandparent, grandchild, boarder, and servant. This perspective teases out the individual experience and, like the household life cycle analysis presented

above, helps overcome the static nature of household type classifications. The designation of the man as head and the woman as spouse was provided by the census enumerator.

The position of an individual within a household changes dramatically as people age, beginning life and growing up as children (or boarders) to eventually head their own households or reside in households with others as spouses, relatives, boarders, or servants. Because of this process, information on household is presented by various age categories. Tables 3.15-3.17 present this perspective, with data given separately for men and women and by various racial and tenure subsamples. For the most part, the black and white samples are similar, as was noted in the discussion of household structure. Important differences exist, however, and will be discussed at this point. Looking first at 1880 (Table 3.15), the most striking difference is the frequency of the relationship "child to head". For both men and women, nearly double the percentage of whites compared to blacks reside in the household of their parent(s). This difference is quite dramatic in the 17 to 24 age group, but persists through all ages. Except in the 17 to 24 age group, this position is more common for women, both black and white, than men.

The frequency of individuals residing in households in which a sibling is the head is more common for white men and women, especially in the young age brackets. The percentage of persons of all ages who were boarders, servants, or other kin was very similar for all subsamples. White women were least frequently servants or boarders in other households, especially at older ages. Although it is not broken out in Table 3.15, some of those persons related to the head as "other kin" for the black sample were grandchildren or grandparents of the household head, which suggests the importance of the alternate generation bond in the black population. Grandparents and grandchildren of the household head were less common household members among the white sample, where the "other kin" category was more heavily composed of cousins, aunts, and uncles.

Table 3.15. Relationship of individuals to head of household, Vinton, 1880.

(table gives percentage of each age group in specific household position, for black and white samples)

		Women, by age groups						Men, by age groups					
Group	Position	17-24	25-34	35-44	45-64	65+	all	17-24	25-34	35-44	45-64	65+	all
	N, wh	45	53	29	37	6	170	66	58	30	35	5	194
	N, bl	508	335	226	215	59	1338	435	310	182	256	49	1232
bl	Head	09	11	19	25	20	15	36	92	91	95	88	75
wh	Head	02	02	17	11	5	07	17	87	77	95	80	65
bl	Spouse	47	70	68	55	29	57	0.3	02	0.5	0	0	0.6
wh	Spouse	20	84	62	57	0	50	0	0	0	0	0	0
bl	Child	32	08	02	0.5	0	13	43	05	01	0.4	0	14
wh	Child	58	14	11	08	0	27	60	04	11	02	0	21
bl	Parent	0	0	03	13	04	05	0	0	0.5	0.4	0	0.2
wh	Parent	0	0	0	22	33	05	0	0	0	0	0	0
bl	Sibling	03	02	03	0	0	02	06	0.7	02	0	02	02
wh	Sibling	14	04	03	03	0	07	16	02	11	0	0	07
bl	Other kin	02	0	0	0.5	04	01	02	0	0.5	0	0	01
wh	Other kin	01	0	03	0	17	02	02	0	0	0	20	01
bl	Boarder	02	03	02	01	04	02	05	02	03	02	06	03
wh	Boarder	05	0	0	0	0	02	0	06	03	02	0	02
bl	Servant	04	06	04	05	05	04	08	02	01	02	04	04
wh	Servant	02	0	0	0	0	0.5	05	11	0	0	0	05

Table 3.16. Position/relationship of individuals to head of household, Vinton, 1910.

(table gives percentage of each age group in specific household position, for black and white samples)

		Women, by age groups						Men, by age groups					
Group	Position	17-24	25-34	35-44	45-64	65+	all	17-24	25-34	35-44	45-64	65+	all
	N, wh	43	32	31	30	5		50	31	30	40	9	
	N, bl	268	188	144	138	42		232	176	124	136	54	
bl	Head	05	11	11	22	12	12	45	90	93	95	93	80
wh	Head	0	0	06	27	20	09	15	82	80	87	22	60
bl	Spouse	54	73	78	61	41	65	0	0	0	0.7	0	0.3
wh	Spouse	44	93	84	63	0	65	0	0	0	0	0	0
bl	Child	33	06	05	01	0	11	43	10	03	0.7	0	13
wh	Child	52	22	03	0	0	17	67	14	0	10	0	22
bl	Parent	0	0.6	01	09	29	04	0	0	0	0.7	02	0.3
wh	Parent	0	0	0	03	60	03	0	0	0	0	55	03
bl	Sibling	01	02	0	03	02	0.2	03	0.6	0	0	0	0.8
wh	Sibling	04	04	03	03	20	04	07	0	03	05	0	04
bl	Other kin	03	0.6	02	01	05	02	03	0.6	0.8	0	02	01
wh	Other kin	0	0	0	03	0	0.8	0	0	0	0	0	0
bl	Boarder	04	03	03	03	12	04	07	05	02	03	04	04
wh	Boarder	0	0	03	0	0	02	10	14	67	07	22	10
bl	Servant	0	0	0	0	0	0	0	0	0	0	0	0
wh	Servant	0	0	0	0	0	0	0	0	0	0	0	0

Table 3.17. Household position, Vinton, 1910, by tenure.

(table gives percentage of each age group in various household position [relation to head] for each tenure grouping)

		WOMEN						MEN					
Group	Position	17-24	25-34	35-44	45-64	65+	all	17-24	25-34	35-44	45-64	65+	all
blow	Head	0	12	08	12	0	08	05	69	94	93	92	69
blre	Head	05	14	12	24	09	12	51	92	93	95	92	82
whow	Head	0	0	05	33	0	12	12	70	83	87	20	61
whre	Head	0	0	08	11	25	05	12	88	75	89	25	59
blow	Spouse	17	62	80	64	67	61	0	0	0	04	0	01
blre	Spouse	57	80	78	59	36	66	0	0	0.9	0	0	0.2
whow	Spouse	33	69	84	57	0	60	0	0	0	0	0	0
whre	Spouse	50	93	85	78	0	71	0	0	0	0	0	0
blow	Child	83	06	12	04	0	17	68	31	06	0	0	20
blre	Child	30	06	03	0	0	11	39	08	03	0.9	0	12
whow	Child	67	38	05	0	0	21	82	20	17	0	0	26
whre	Child	43	07	0	0	0	12	54	12	0	0	0	12
blow	Parent	0	0	0	08	0	02	0	0	0	0	0	0
blre	Parent	0	0.6	02	10	36	04	0	0	0	0.9	02	0.4
whow	Parent	0	0	0	0	0	0	0	0	0	0	40	03
whre	Parent	0	0	0	11	75	07	0	0	0	0	75	04
blow	Sibling	0	.6	0	0	0	01	0	0	0	0	0	0
blre	Sibling	01	02	0	04	03	02	03	0.7	0	0	0	0.9
whow	Sibling	0	07	0	05	10	04	0	0	0	09	0	03
whre	Sibling	07	0	08	0	0	03	14	0	08	0	0	05
blow	Other kin	0	06	0	0	12	02	0	0	0	0	0	02
blre	Other kin	03	0	01	02	03	02	01	0.7	0.9	0	02	0.9
whow	Other kin	0	0	0	05	0	01	0	0	0	0	0	0
whre	Other kin	0	0	0	0	0	0	0	0	0	0	0	0
blow	Boarder	0	12	0	11	12	07	16	15	0	04	08	07
blre	Boarder	05	02	03	0.9	12	03	05	04	02	03	02	04
whow	Boarder	0	0	05	0	0	01	06	20	0	04	40	08
whre	Boarder	0	0	0	0	0	02	14	12	17	12	0	12

Women, both black and white, were much more likely to live in the households of their children. Although these patterns are may be influenced by longer life expectancy for women, the difference between men and women also exists at young ages. There were in fact no white men in this position in 1880.

The most obvious difference between men and women's position within households was the incidence of the headship and spouse position. Thus the most common household position for all women was spouse, and the most common position for all men was head of household. Black men were slightly more likely than white men to be household heads, and black women were slightly more likely to be spouses. This difference was especially strong in the 17 to 24 age group, which suggests an earlier age at marriage for blacks (discussed below). Female headship was rare compared to male headship, but was the third most common position for women, after spouse and parent in child's household. Overall, a higher frequency of female headship was indicated for black women. For both groups, female headship was lowest at the youngest ages, and increased with age. As mentioned before, the few cases of black men as spouses and not heads of house is intriguing. Note that this status occurs only in the three earliest age groups in 1880.

Table 3.16 presents the same information as Table 3.15, only for 1910 instead of 1880. Many of the patterns described for 1880 are still present. These include the higher incidence of women than men in the household of their children for the black sample, the higher incidence of white individuals residing in a sibling's household, and the low occurrence of white women as boarders. One major difference between 1880 and 1910 was the loss of the servant category, which, as suggested above, maybe related to differences in the census taker's views or classifications. Correspondingly, boarders were more prevalent in 1910 than they were in 1880.

The most dramatic difference between blacks and whites, the higher frequency of white adults residing with parents, continued, although the degree of divergence by race was stronger for men than for women. As in 1880, this difference in 1910 was strongest at the earlier ages, suggesting blacks left the parental household at an earlier age. A very high percentage of black men age 17-24 were heads of their own households. The pattern of men as heads of households and women as spouses continued as well. Again black men were more likely to be household heads than white men. However the pattern observed in 1880, in which black women were more likely than white women to be spouses, was not observed in 1910. In fact, for the 25-34, 35-44, and 45-64 age groups in 1910, white women were more commonly spouses than black women, with black women more commonly spouses at the 17-24 and 65+ groups. The frequency with which black women and white women were spouses increased dramatically from 1880 to 1910, from 50 percent (white) and 57 percent (black) in 1880 to 65 percent (for each group) in 1910. This increase is present at all age groups but is especially high for white women in the 17-24 group, where it represents a jump of 120 percent, suggesting a decline in age at marriage for white women. Other trends from 1880 to 1910 include a slight decline in the incidence of living with siblings. This could easily be caused by a slight decrease in age at marriage, assuming marriage meant the start of a new household, which it generally has in the West (Hajnal 1965,1982). The percentages of persons living with other kin also declined over time, except for black males.

Since the percent of women who were spouses declined dramatically from the 45-64 to 65+ age groups, for both 1880 and 1910, a closer look was taken at 65+ women and their positions in households. In fact, for both 1880 and 1910, no white women 65+ were living with a spouse, compared to 29 percent of black women in 1880 and 41 percent in 1910. This pattern suggests longer life expectancy for women than men. The model life

tables used below in the fertility analysis suggest that the life expectancy of women age 45 was two years longer than that of men age 45, for blacks and whites. All of these women list their marital status as widowed. Some of these women who were 65+ and were not spouses headed their own households. This situation was more common in the white sample, for both 1880 and 1910. However, anywhere from 30 percent to 60 percent of women who were not spouses resided in their children's households, depending on race and time period. Seventeen percent of white women 65+ lived with other kin in 1880, but none did in 1910. About five percent of black women 65+ lived with other kin, in 1880 and 1910.

The number of children who were surviving when a women reached age 65 seems to have played an important role in determining her residence. The household positions of women 65+ in 1910 were recalculated according to the number of children the woman had surviving (these data were not available for 1880). The incidence of widowed women residing with a child went from 0 percent if one child was surviving to 100 percent if three children were surviving. The only widowed women living as boarder for whom information on number of children surviving was available had one child surviving.

Differences in Household Positions by Tenure

Differences in household composition, processes of household formation, and fertility by tenure are important aspects of this research. The theoretical perspectives outlined in Chapters 1 and 2 suggest that there will be differences between owners, renters, and sharecroppers, stemming from variable constraints on household formation linked to access to productive resources. To test for these differences, positions in households were broken down according to tenure. This data is presented in Table 3.17.

As with the analysis of household composition and type presented above, the similarities between renters/sharecroppers and owners are sometimes stronger than similarities between blacks and whites. This is the case for the categories of siblings, other kin, and boarders. This suggests that different cultural heritages may affect household composition more than tenure. However, differences by tenure are important for the categories of child, spouse, and head. For example, owning households, both black and white, were much more likely to have children age 17 to 24 living with their parents. While 30 percent of 17 to 24 year old women were living in their parents' house in the subsample of black renting households, 83 percent of such women in the black owning subsample were living with their parents. Similarly, while 43 percent of white 17 to 24 year old women were living with parents in the subsample of white renting households, 67 percent of such women were living with parents in the white owning households (Table 3.17). This difference between renters and owners continues through all age groups, although of course the incidence of adult children living at home dropped dramatically as the children aged. It is an important feature of the tenancy stratification that owners of farms usually cultivated more acreage and would have been able to make better use of and provide better support for the labors of their children than would renters. They also would have had more material wealth to pass on to children, which may have changed the way marriage was viewed.

The same pattern of differential residence in parents' household by tenure exists for men. Here the black and the white samples are very similar, with about 30 percent more 17 to 24 year old men still residing with parents among owning households compared to renting households (Table 3.17). A small portion of sons and daughters living at home were already married and, with their spouse, perhaps in line to take over the family farm. This can be seen most easily in Table 3.8, in the higher incidence of married children living with parents (stem family form) for households which owned their farms. This pattern

holds by both tenure and ethnic breakdowns. However, this household form is relatively rare, even for white owners for whom it was more common in 1910.

The suggestion that these differences in the incidence of persons living with parents is related to differences in age at marriage and the rate of new household formation is supported by differences in the positions of head and spouse, and not, for example, in categories such as other kin or boarders. For the younger age groups 17-24 and 25-34, a much higher percentage of black women were spouses in renting households than in owning households (57 percent compared to 17 percent for the 17-24 age group, and 80 percent compared to 62 percent for the 25-34 age group). The same pattern is also present for white women. Similarly, a much higher percentage of black men in the youngest age groups were heads of households in the renting subsample than in the owning subsample. This difference by tenure was not supported in the white male sample, although it was supported in the white female subsample. Young adult white men were less frequently residing with parents in renting households. However, instead of being heads of their own households, as was the pattern for young adult black males, young white males, especially in renting households, were more commonly boarders or living in a sibling's household. The pattern of higher incidence of headship for renters does hold for white males of the next age group, 25-34, so that the general pattern may hold for white men but just be delayed by an average later age at marriage and a tendency to live with (presumably older) siblings before their own marriage.

Other differences by tenure include a higher incidence of persons as boarders for the black owning subsample. This is in contrast to an opposite pattern for white Vinton residents. The difference may reflect a lessened ability of the black renting/sharecropping subsample to take in boarders, given that their houses were often very small and owned by a landlord. Black owners likely had more room, greater residential stability, and greater

control over household composition. Conversely, it is possible that all white households had the space to take in boarders or extra family members, especially compared to black renters/sharecroppers, but that it was white renters who felt a stronger need for the extra household income/labor that additions to the household furnished. Another difference between renters and owners is the higher frequency of female-headed households for black renters. The same is true for the white sample except in the 45-64 age group, which exerts a strong effect on the overall distribution.

CHAPTER 4

MARRIAGE AND FERTILITY

Introduction

Chapter 3 showed that most Vinton households in 1880 or 1910 were composed of a nuclear family. This chapter presents an analysis of marriage and fertility, the two most important processes through which nuclear family households are formed and develop over time, for the Vinton population. Because of the importance of rural and urban differentials in theories about fertility, a sample from the nearby county seat, West Point, Mississippi, is added for the fertility analysis. The fertility analysis, which utilizes a variety of measures of the level and nature of fertility, is followed by an indirect estimation of illegitimacy for the Vinton and the West Point samples The broad reach of this entire study, encompassing not only fertility but marriage patterns and household structure, makes it possible to give a broader contextualization to illegitimate births.

Marital Status in Vinton

As suggested by the high frequency of nuclear family households and the spouse position within households in Chapter 3, one of the most universal experiences for turn of the century women was marriage. Table 4.1 presents data on marital status by race in 1880 and by race and tenure in 1910. Detailed analysis of marriage was reserved for the 1910 sample, since the 1910 census gave better information on marital status.

Table 4.1. Marital Status, 1880 and 1910 compared.

(table gives percentage of each group that is single or widowed)

	MEN				WOMEN			
	Percent single			Percent widowed	Percent single			Percent widowed
Group	17-24	25-34	all ages	all ages	17-24	25-34	all ages	all ages
N, 1880, 1910, wh	66, 50	58 31	170, 160	170, 160	45, 43	53, 32	194, 141	194, 141
N, 1880, 1910, bl	435, 232	310, 176	1338, 722	1338, 722	503,268	335, 188	1232, 780	1232, 780
1880, black	66	10	23	05	39	12	17	17
1880, white	91	41	44	03	77	13	35	12
1910, black	58	12	17	08	32	17	11	18
renters	49	08	14	03	30	06	11	20
owners	79	27	21	26	58	16	14	15
1910, white	86	26	33	04	54	11	18	14
renters	81	18	31	0	42	0	12	10
owners	87	37	33	07	66	27	24	07

Table 4.1 shows the percentage of individuals who were either single or widowed. Since divorce was very rare in the sample population, for most purposes it can be assumed that persons not widowed or single were married. The percentage of black men who were single decreased slightly from 1880 to 1910, while the percent that were widowed increased by nearly the same amount. The percentage of white men who were single also decreased over the 30 year period. In both time periods, a higher percentage of white men than black men were single and a higher percentage of white men were widowed. Owners showed a higher proportion of widows than did renters, for both blacks and whites. Owners showed a higher proportion of single men for the white sample. Many of these same tendencies were repeated for Vinton women. The percentage that was single decreased over age, while the percentage widowed increased. Owners showed a higher percentage of women single, and a lower percentage of women who were widowed. Thus it appears that while the state of marriage became slightly more common from 1880 to 1910, marital disruption may also have increased.

An analysis of differences in marital status between the various age groups, by tenure, supports the earlier findings regarding position in household. That is, for the younger age groups 17-24 or 25-29, higher proportions of owners than renters/sharecroppers were single. The differences are most dramatic for the black sample, again suggesting earlier age at marriage for black renters/sharecroppers. Higher proportions of women were widowed and lower proportions of women were single, for all age groups. Widowhood was especially prevalent among black women in 1910; almost one quarter were widowed.

Serial Marriage and Complex Households

The 1910 census included detailed information on marital status, and the analysis of marital status was expanded accordingly. Serial marriages were tabulated by their number, and all marriage statuses, not just the percent single as in Table 4.1, were analyzed separately by the age of the person. Some analysis was conducted for men, but more detailed analysis was conducted for women. This is because of the increased importance of women's marital status to a population's reproduction rate, given the link between a woman's marriage and fertility. Black women were also subdivided by the tenure of the household in which they resided. This subdivision by tenure was not possible for the white sample due to its smaller size.

Table 4.2 presents the results of the breakdown of marital status by age. Steadily decreasing percentages of single men and women are seen among older age groups, for all subsamples. This is especially true for black women, who by age 65 had all been married at least once. This universality of marriage is less strong for white women, although the sample of white women is smaller and therefore not as reliable as the larger black sample. The large percentage (20 percent) of white women 65 years and older who were single is undoubtedly a sampling bias.

Although it has been shown that the majority of adult women married, and that most households had at their core a married couple, marital statuses varied significantly according to racial and tenure groupings. Higher percentages of black than white women were serially married, i.e. in second, third, or fourth marriages, for all age groups. More than half of black women age 65 or over who were married were in a second or later marriage. Although there were in the sample no married white women age 65 or over to compare with this black sample, comparison is possible for the next younger age group,

Table 4.2. Percentage of age and tenure groups in various marital statuses, Vinton, 1910.

Group	N	1st marriage	2nd marr	3rd marr	4th marr	single	divorced	widowed
Bl women, 17-24, all	188	55.9	2.1	.5	0	32.5	0	9
renting hh		58.1	2.4	.6	0	30.5	0	8.4
owning hh		42.1	0	0	0	57.9	0	0
Bl women, 25,-34, all	186	66.7	10.2	1.1	0	6.5	0	15.6
renting hh		68.8	11.3	.6	0	5.6	0	13.8
owning hh		52.6	5.3	0	0	15.8	0	26.3
Bl women, 35-44, all	143	58.7	18.9	2.8	0	2.1	.7	16.8
renting hh		58.0	20.5	2.7	0	2.7	.9	15.2
owning hh		75.0	14.3	3.6	0	0	0	7.1
Bl women, 45-64, all	137	39.4	21.2	3.6	0	.7	1.5	33.6
renting hh		39.8	19.4	4.6	0	0	1.9	34.3
owning hh		37.5	37.5	0	0	3.1	0	21.9
Bl women, 65 +, all	42	19	19	2.4	2.4	0	2.4	54.8
renting hh		22.6	12.9	3.2	3.2	0	0	58.1
owning hh		16.7	50	0	0	0	0	33.3
Wh women, 17-24, all	28	53.6	0	0	0	46.4	0	0
Wh women, 25-34, all	32	78.1	9.4	0	0	9.4	0	3.1
Wh women, 35-44, all	32	93.8	0	0	0	3.1	0	3.1
Wh women, 45-64, all	30	60	3.3	0	0	10	0	26.7
Wh women, 65 +, all	5	0	0	0	0	20	0	80
Bl women, all ages, rent	568	55.7	12.1	1.9	.2	10.9	.5	18.7
Bl women, all ages, own	105	50.5	19.0	.9	0	14.4	0	15.2
Wh women, all ages, rent	58	70.7	3.4	0	0	12.1	0	13.8
Wh women, all ages, own	68	63.2	1.5	0	0	25.0	0	10.3
Wh men, all ages	149	57.7	2.0	.7	0	32.9	0	6.7
Bl men, all ages	628	52.6	20.5	3.5	.6	16.1	0	6.7

age 45 to 64. Only 61 percent of black married women age 45 to 64 were in their first marriage, compared to 95 percent of white married women.

Table 4.2 also provides comparative information on serial marriage for men in Vinton. Black men were more married than any other group, both in terms of a larger percent being married in 1910 (76 percent compared to 61 percent of white men or 68 percent of black women), but also in that 25 percent of black men were in a second or later marriage. Only 3.7 percent of white men were in second or later marriages. The higher incidence of remarriage for men (see also Farley 1970:136-137), which resulted in low widowhood, suggests the importance of women in the rural household, as does the fact that among single-parent households, 93 percent of black and 95 percent of white households were female-headed. Men especially did not head households without a spouse when children were present.

These patterns of marriage and remarriage may be affected by the size of the population of potential spouses. Vinton sex ratios are 89 (males per 100 females) for the black adult population in 1880, 90 for the black adult population in 1910, 102 for the white adult population in 1880 and 118 for the white adult population in 1910. The relative shortage of black men would probably make remarriage more difficult for black women. The extent to which this low sex ratio is caused by higher mortality among black males, versus selective outmigration, is not known, although higher male mortality has been suggested in other studies (see also Farley 1970; Pleck 1979; Furstenburg et. al. 1978; Gutman 1976). The relative shortage of women in the white population may have contributed to the higher rates of widowhood for white men, compared to black men.

There is no consistent pattern or relationship between tenure and serial marriage. Higher proportions of black women in the age groups 17-24, 25-34, and 35-44 were

serially married in renting households. In the older age groups, serial marriage was more common for black women in owning households. The white sample is too small to subdivide by age. But comparing the entire sample of white women with the entire sample of black women, not subdivided by age, shows that serial marriage was more common among white women in renting households. Conversely, serial marriage was more common among black women in owning households. It should be pointed out that those groups which had a relatively low proportion of persons in serial marriages, such as women age 65+ in black renting households, did not necessarily show increased proportions of women in first marriages. Instead, they often showed a greater percentage of persons in the widowed category. It is impossible to determine from the census data how many times widowed persons had been married.

As a result of serial marriage, about one fourth of all black married households included at least one spouse who had been previously married. Twenty-three percent of all persons lived in such households. The multiplicity of surnames of children in many households suggests that children from first and subsequent marriages often resided together, with their common mother. Although stepfather relationships were probably more common than those of stepmothers, the frequency of serial marriage undoubtedly meant that some women cared for children who were not their natural offspring. Households containing serially married adults did not contain larger numbers of children than households of first unions. The mean number of persons under age 17 was two, both in first marriage households and in those where at least once spouse had been married before. However, the previous analysis of household composition suggested that complex households had the highest incidence of non-nuclear relatives. It is unlikely that all relations of affinity disappeared with the breaking of a marriage. The data set contained several households in which a daughter-in-law or son-in-law continued to reside with her or his spouse's family after the death of the connecting spouse.

Comparative historical material on marital status, and especially on serial marriage, is not common. One investigation providing such information is Johnson's (1934) study of 612 black families in Macon County, Georgia, in the early 1930s. This work revealed that 43 percent of marriages involved a spouse who had been previously married, compared to the present finding of 23 percent of such marriages in Vinton, Mississippi, in 1910. A study conducted in Rowanty township, Dinwiddie County, Virginia, in 1878, documented that over 50 percent of marriages contained at least one spouse who had been previously married, and that 32 percent of all households contained persons related through step relations (Manfra and Dyksta 1985). The fact that the Rowanty County study population was 32 years younger than the present study population from Mississippi may explain this difference. The Rowanty County sample should have included a much larger percentage of persons who had experienced marital disruptions because of slavery, compared to the present sample.

Age at First Marriage

Many of the above analyses have touched indirectly on age at marriage, and have suggested differences in this variable by race, sex, and tenure. Age at marriage is a very important variable, since it largely determines the rate of new household formation, and has a large influence on fertility. Because of this importance, direct analysis of age at marriage was undertaken. This analysis could only be done for the 1910 population because the census in 1910 provided the number of years married as well as whether this marriage was a first, second, third, or fourth marriage. The latter piece of information allowed the analysis to be confined to those in their first marriage.

The first step was to take the number of years married, for those persons in a first marriage, and subtract it from their age. This gave an age at first marriage for each person. Although some error is inevitable without exact dates of marriage and of birth, errors of more than one year are unlikely. The next step in the analysis was to calculate a simple mean age at first marriage, for sex, race, and tenure subsamples. These results are presented in Table 4.3. They support the interpretation suggested by the analysis of household structure above. Except for white women, renters married earlier than owners. Women married earlier than men. Differences by race are not as consistent.

Small differences in age at marriage are very important, and a mean can be significantly influenced by unusual cases. Therefore, a more reliable measure, such as the singulate mean age at marriage, was also calculated. Based upon the proportions single for any age group and calculated following Hajnal (1953), singulate mean age at marriage estimates the mean number of years lived by a cohort of women before their first marriage. The results are tabulated in Table 4.3. All groups now show a younger age at first marriage for the renting sample, including white women for whom this pattern had been reversed in the arithmetic mean calculation. The renting population married earlier than the owning population by a margin of 2.35 years for black women, 3.04 years for white women, 3.98 years for black men, and 2.13 years for white men. As suggested above, this difference could be related to the fact that within the owning sample, considerations of property transmission imposed greater constraints on marriage.

Table 4.3 Age at First Marriage, Vinton, 1910.

Group	N	Mean Age, First Marriage*	Singlulate Mean Age at First Marriage**
Black women, renting household	319	19.7	19.25
Black women, owning household	50	21	21.6
White women, renting household	40	21.1	20.16
White women, owning household	40	20.9	23.2
Black men, renting household	280	23.1	21.68
Black men, owning household	42	25.6	25.66
White men, renting household	40	21.1	20.16
White men, owning household	38	25.6	22.29

* Arithmethic average
** Calculated after Hajnal 1953.

Analysis of Fertility: Introduction

The fertility of late 19th and early 20th century Southern Americans, especially in rural farming populations, which are in many areas predominantly black, has received little attention in recent years. Significantly more attention has been given to fertility in Europe and less developed countries. General demographic characterizations have been presented for the region by Eblen (1974), Engerman (1978), Coale and Rives (1973) and Farley (1970). These scholars have documented that black and white fertility in the South was generally higher than in other regions of the U.S.; and that both declined during this period, white fertility first, followed by black fertility. Coale and Rives (1973) calculated total fertility rates for Southern black women of 7.26 in 1880-84 and 4.84 in 1910-14. This suggests a decline of 33 percent. Similarly, Farley (1970) documented a decline in the black child-women ratio of over 20 percent from 1880 to 1910.

Despite the severity of these declines, there is still little understanding of black fertility during this period. The majority of work in Southern historical demography of the postbellum period can be characterized as a debate over the uniqueness of the decline in black fertility. This decline has been attributed to a variety of physiological factors such as pellagra (Farley 1970), rickets (Cutright and Shorter 1979), venereal disease (Wright and Pirie 1984), tuberculosis (McFalls and McFalls 1984), and general poor health. Other researchers have emphasized the similarity between the decline of black fertility and the earlier fertility decline among white Americans. These investigators have stressed voluntary fertility limitation and looked to changes in the social environment and family structure or economic value of children (Engerman 1978; Lantz and Hendrix 1978, Masnick and McFalls 1976, 1978; McFalls and Masnick 1981; Meeker 1977; Thompson 1922). Until the recent work of Tolnay (1981, 1983, 1984, 1986, 1987, 1989), however, almost all of this work has been hampered by a lack of sophisticated techniques with which

its decline several decades before black fertility, and to the extent that this decline is the result of family limitation, or departure from natural fertility, a higher m value should be obtained from the analysis. It is also expected that the Vinton area will show a higher level of fertility, as has been demonstrated in many other studies of rural populations. Within both the Vinton and West Point samples, the black subsamples should show higher fertility than the white subsamples.

One of the strengths of this analysis is the ability to examine differences in fertility according to tenure. It is hypothesized that there will be salient differences in the fertility of owners and renters. However, because it is expected that the rural population was essentially a natural fertility population, these differences will be expressed in differences in the level of fertility (M and other measures) rather than its age-specific schedule (m). Differences by tenure should be stronger within the urban sample, which is hypothesized to show greater departure from natural fertility. However, it is also recognized that the tenure variable is less structurally important in the urban environment, which may weaken differences between renters and owners there. The next sections present the results of several types of fertility analyses. Because the methods are complicated, with variable parameters that are applied by the analyst, the manner in which these results were calculated is laid out. The implications of the analysis are discussed in Chapter 6.

Own Children Estimates of Total Fertility Rates.

One of the basics of fertility analysis is the calculation of fertility rates. Usually these rates come from vital registration data, such as birth registrations, and yield numbers of births per number of women of a given age. However, since birth registration was not instituted for the sample population in 1910, the best data available are census

enumerations. This situation, which is not uncommon in many parts of the world today, has added impetus to the development of methods to convert census enumeration data into rates. One such method is the own-children method, pioneered by Grabill and Cho (1965) and Retherford and Cho (1978). Total fertility rates and marital fertility rates were calculated for the sample population using the own-children method of estimation.

The crucial pieces of information needed to calculate fertility rates from census data are a listing of a household giving the ages of children and the age of their mother. This makes it possible to determine (at least within one year) the age of the mother at the time of the child's birth. Information is also needed on the number of children a woman has borne and how many are surviving, to help in assessing the relationship between the children listed in the household and the potential mothers. The fertility rate is calculated by first deriving, for any given period of time, the number of children born to women at age X, divided by the total number of women at age X. This procedure is carried out for all ages of women between 15 and 49, and the final age-specific rates are summed for the total fertility rate. For example, to arrive at the fertility rate for women age 30, the number of children age 0-1 and whose mothers are age 30 is divided by the total number of women in the sample population who are age 30. Then the number of children age 1-2 whose mothers are age 31 (who would have been age 30 at the time of the child's birth) is divided by the total number of women age 31 . These two figures are added together, and the procedure is continued with the number of children age 2-3 with mothers age 32, divided by the total number of women age 32, the resulting quotient being added in to the calculation. This procedure is continued for a number of years, as determined by the analyst.

This procedure could be carried out for a number of years before present, or ages of children, as long as the data on ages of children and ages of their mothers were available.

However, the method is intended for use with census data, which shows only those children present in a household with their mothers. As children are increasingly away from their parents' household as they age, the calculation should be kept to a low number of years since birth (or age of children). The most common procedure is to calculate the rate from one to fifteen years before present, or to age 15 of children. In this analysis, calculations were carried back five years (or to the age of 5 years for the child). The result is a fertility rate over five years, which is a reasonably short period of time. Calculations over longer periods of time become increasingly problematic if there was much change occurring in the fertility of the population, as is often the case. After the fertility rate for age 30 is calculated, the procedure is continued for age 29, 31, 32, and so forth, until all ages from 15 to 49 have been covered.

Because the ages of children indicate their birth in terms of years before present, the sum of the fertility rates where the child is 0-1, for all ages of women, can also be used as a fertility rate for the present. The sum of the fertility rates where the child is 1-2, for all ages of women, can be used as a fertility rate for one year ago, and the sum of the fertility rates where the child is 2-3 can be used a fertility rate for two years ago, and so forth. However, unless the sample is very large, it is more reliable to pool the data into a total fertility rate for the total five year period.

Although this is the basic methodology for calculating a total fertility rate from own-children information, a number of adjustments are also necessary. The own-children method relies upon the presence of children with their mothers, so that the mother's age at birth can be estimated. Children not living with their mothers cannot be used. In the sample population, relationship to head was listed, which generally simplified the task of connecting children in households to their mothers. The fact that the census provided the number of children a women had borne, the number which were surviving, the women's

marital status, and the number of years in a marriage, helped greatly in assessing the relationship between a child and a woman. Although most children under 5 years of age were living with their mothers, there were some exceptions. For example, some households included nieces, nephews, or grandchildren of the head of the household. These children could be included in the analysis only if the mother was also present, which was not always the case. Also, children in simple nuclear family households whose mother either was not present or whose age was not given could not be included in the analysis. Fortunately this was rare.

A more frequent complication arose when a woman was married to a man who had been married before, creating the possibility that some of the children in the household had been borne by an earlier wife. These children were still just listed as "son" or "daughter," and in fact many probably were the biological offspring of the male head of the house. To handle this problem, the following procedure was used. If the number of children present in the house matched the number of children the women reported as surviving, it was assumed that all of the children had been borne by the present wife. If the number of children listed in the census exceeded the number the woman reported as surviving, the ages of the children, the number of years the woman had been married, the birthplace of the potential mother, and the birthplace of the child and its parents were used to make an assessment.

For the entire sample, each child was assigned a "status" number indicating the surety of connection to a mother. These statuses are as follows: status 1) unknown (?), as in cases where the mother was not present, her age was not given, or the household structure indicated that this child was not the biological offspring of the mother. This was the case, for example, where there were more children in the household than the woman had listed as surviving, her husband had been married before, and this child was older than

the number of years she had been married; status 2) probable, applies to cases where the husband had been married before but the number of children present in the household did not exceed the number the woman listed as surviving, or the age of the children did not exceed the number of years she had been married, status 3) good, indicates that none of the above conditions apply. Within status 3, the woman could have been married before and so the children might not all be from this marriage (not important in calculating the fertility rate but of interest); and status 4) good, is used when the conditions of status 3 apply and both parties have been married only once, so that all children are assumed to be not only the offspring of this mother but this father as well.

Table 4.4 shows the breakdown of children into these statuses, by residence, tenure, and race. The incidence of status 1, where the connection between the child and mother was very questionable, made up from 0 to 12 percent of the sample of children, depending upon the subsample. Table 4.4. also presents more information on the circumstances of these "status 1" children. Most common was that they were living with grandparents, aunts and uncles, or just their father. Status 1 children were much more common in black households.

In some subsamples as many as 15 percent of children could not be connected with mothers with surety (i.e. the 1 and 2 status). This casts doubt on analyses which merely assume that all children in a given households were borne to the resident adult female, at least where extended families and more complex household structures are common, as in the black sample. The incidence of children in households where mothers were not present, or could not be confidently identified, increased dramatically with the age of the child. Although this information is not presented in Table 4.4, 32 percent of black urban children of all ages (< 17 years old) were status 1 or 2. The proportion of status 1 and 2 children was smallest for the urban white subsample (8 percent). Several factors may

Table 4.4. Status of children in households, used in 1910 fertility rates.

(figures on left are percentage of children < 5 years old in each status; figures on right are percentage of Status 1 children by each explanation)

	Surety of biological motherhood of ch < 5 yrs old						Status 1 cases, percent caused by which situation					
Group	1 ?	2 prob able	3 good,	4 good,& in this marr	2+3+4	3+4	mother not present, only fa	extra kids, complex hh	grand child mo not present	niece/ nephew mo not present	servant or boarder	age of mother not given
Urban black	11	04	25	60	88	85	21		34	14		21
owners	09	05	30	55	91	86	40		40	20		
renters	12	03	22	63	88	85	11		33	11		33
Rural black	06	02	16	76	94	92	05	14	52	09	19	
owners	08		32	60	92	92			50		5	
renters	06	02	15	77	94	92	05	16	52	16		
Urban white	01	05	06	88	98	94			100			
owners	02	03	07	87	96	95			10			
renters	0	06	03	91	100	94						
Rural white	01		05	94	98	98	100					
owners				100	100	100						
renters	03		08	89	97	97	100					

contribute to this pattern. For a variety of reasons, children are more likely to move to other households as they age. In addition, families become increasingly complex over the life of the child, and this hinders the identification of a definite mother-child relationship. Thus it is preferable to calculate the fertility rate over a relatively short period of time (or ages of children), such as the five years used in the present study.

All children in status 1 were excluded from the total fertility rate calculations. To adjust for the absence of these children, the number of children observed for each age group was multiplied by a figure which essentially restores status 1 children and distributes them in the same manner as those children who are with their own mothers. This adjustment is the multiplicative inverse of the proportion of children in status 2-4, calculated separately for each age of child. The exact adjustment factors are given in Table 4.5. Separate adjusters were calculated for all households, and for only those households in which the woman was married. The former was used in calculating the total fertility rate and the latter was used in calculating the marital fertility rate. The incidence of children not with own mothers was slightly higher in the total population than in the married population, for all age groups but one.

Besides this adjustment, several other adjustments had to be made. Since the method relies on counts of existing children, it does not include those children who did not survive to be enumerated in the census. Thus the next adjustment is for the mortality of children. This adjustment is made with reverse survivor methods based upon life tables. Life tables calculate, among other things, the number of members of any one cohort (age group) that will survive a certain period of time, usually a year, under given mortality levels. By multiplying the observed numbers in each group by the multiplicative inverse of the proportion of each age group that will survive a given year, deceased members are added back into the fertility rate for each age group. Since males and females have different

Table 4.5. Adjustments to children, own-children fertility rates, 1910.

Group	Age child	mortality females***	mortality, males***	mortality, weighted by sex	own children, total sample	own children, marital only	undercount
white							*
	0-1	1.12	1.14	1.14	1	1	1.07
	1-2	1.15	1.18	1.18	1	1	1.07
	2-3	1.17	1.20	1.20	1	1	1.07
	3-4	1.18	1.21	1.21	1	1	1.07
	4-5	1.19	1.22	1.22	1.07	1.04	1.07
black							**
	0-1	1.23	1.28	1.27	1.05	1.06	1.21
	1-2	1.32	1.38	1.37	1.04	1.03	1.21
	2-3	1.38	1.45	1.44	1.12	1.07	1.21
	3-4	1.44	1.51	1.50	1.05	1.04	1.21
	4-5	1.48	1.55	1.54	1.15	1.08	1.21

* calculated from Coale and Zelnik 1963
** calculated from Coale and Rivers 1973
*** calculated from Coale and Demeny 1966, West levle 14 for white sample, North level 7 for black sample

mortality levels, separate indexes are calculated for each sex and then averaged using a weight of the sex ratio to arrive at an overall adjustment.

The most important factor in this procedure is the availability of life tables which approximate not only the overall level of mortality, but its distribution by age in the subject population. In this case, model life tables provided by Coale and Demeny (1966) were utilized. These tables have been calculated to simulate mortality by ages for different parts of the world, based upon empirical evidence and mathematical modelling. The tables used in this analysis were North Level 7 for the black population, and West Level 14 for the white population. These are the same tables used in Tolnay's (1981) analysis. The West tables are designed for use in the United States (as well as other places), with Level 14 best matching the known life expectancy rate of the time. A North rather than a West table was used for the black population because it better incorporated the high incidence of tuberculosis in Southern black populations (Tolnay 1981:445). The North Level 7 life table best approximates the life expectancy and infant mortality for a turn of the century black Southern population, as calculated by Eblen (1974). Table 4.5 shows the mortality adjustments used in the analysis.

The final adjustment to the observed numbers of children by ages of their mothers was for under or over counting by the census taker. Estimates of undercounting for this time period have been made by Coale and Rives (1973) for the black population, and by Coale and Zelnik (1963) for the white population. A multiplicative inverse of the proportion of the population thought to have been missed was applied to the observed numbers of own-children. This information was not available for specific ages between 0 and 5, but rather as one estimate for all children 0-5. As can be seen in Table 4.5, this adjustment is a substantial one, especially for the black population. By applying this adjustment to the entire number of observed children, it is again assumed that these

undercounted children are distributed among women of various ages in the same manner as those children who were counted.

It was also necessary to adjust for mortality and undercounting of women used in the analyses. These adjustment factors were calculated in the same manner and from the same life tables or underenumeration estimates as described above for children, and were applied by five year age groups. They appear in Table 4.6.

The resulting total fertility rates, and total marital fertility rates, are presented in Table 4.7. Both rates are calculated in the manner described above except that the population for the total marital fertility rate is limited to married women and children in their households. The marital fertility rate is generally higher than the total fertility rate because of the higher incidence of childbearing within marriage. Variation in fertility levels according to racial and residential groupings is the same for both the total fertility and total marital fertility rates. In both cases the lowest fertility is seen in the white urban population, with the next lowest fertility in the black urban population. This is followed by the black rural population, while the white rural population shows the highest fertility.

Other Fertility Measures

The total fertility rate discussed above is one of the most sophisticated fertility level measures available for census data. It corrects for biases and provides a summary measure which takes all age groups into account. There are, however, a number of other measures which can also be utilized, some very easily. One such measure is the child-woman ratio, which is the number of children under age 5 in relation to the number of women age 15-49. Within this measure, more elaborate adjustments can also be made for the age-structure of the population, but these were not undertaken in this analysis since the total fertility rate

Table 4.6. Adjustments to women, own-children fertility rates, 1910.

	WHITE			BLACK		
	N	undercount*	mortality ***	N	undercount**	mortality***
15-19	6	1.02	1.02	38	1.06	1.04
20-24	35	.99	1.03	117	.97	1.05
25-29	41	1.03	1.03	249	1.05	1.06
30-34	42	1.07	1.04	88	1.22	1.07
35-39	46	1.07	1.04	90	1.07	1.07
40-44	40	1.12	1.05	64	1.22	1.08
45-49	27	1.15	1.06	114	1.15	1.10

* calculated from Coale and Zelnik 1963
** calculated from Coale and Rives 1973
*** calculated from Coale and Demeny 1966, whites, West level 14; blacks, North level 7

Table 4.7. Fertility measures, 1880 and 1910.

Group	1880, child/ woman ratio	1910,child/ woman ratio	% change ch/woman ratio, 1880-1910	1910 total fertility rate	1910 marital fertility rate	1910, % of woman married 10 yrs that are childless
black,urban	460	370	-19	3.44	4.82	18.6
black, rural	710	620	-13	5.45	6.93	5.9
white, urban	650	320	-51	3.03	4.18	6.4
white, rural	530	640	+20	5.67	7.30	5.8

was calculated. The child-woman ratio is presented for the sample population for both 1880 and 1910, in Table 4.7. It is presented by tenure groups in Table 4.8

It can be seen in Table 4.7 that the child-woman ratio shows the same ordering of the racial and residential subsamples as the total fertility rate. White urban women have the lowest fertility, followed by black urban, black rural, and white rural women. Also note the sharp drop from 1880 to 1910 in the number of children per woman in all but the rural white sample. The rural white sample for 1910 is rather small (only 101 rural white households compared to 585 rural black households, 317 urban black households, and 201 urban white households), and the increase in fertility for the rural white sample may be influenced by sampling bias. These changes between 1880 and 1910 represent declines in fertility of 19 percent for the black urban population, 13 percent for the black rural population, 51 percent for the white urban population, and an increase of 21 percent for the white rural population.

Many other summary measures of fertility are possible. Table 4.7 also includes a measure of childlessness, presented by racial and residential groupings. Those marriages that were at least ten years old and in which the woman listed the number of children born as 0 were tabulated, and are expressed in Table 4.7 as a percentage of all marriages of at least ten years duration. The percentage of childless marriages was especially high for black urban women, suggesting that childlessness could be a more important component in black urban fertility rates than in other groups.

Several measures were not only calculated by residence and racial groupings, but also by tenure. Unfortunately, total fertility rates and total marital fertility rates could not be calculated by tenure because it was felt that the differences in standard of living represented by these distinctions created different levels and schedules of mortality.

Furthermore, life table estimates were not available by tenure. However, several other measures of fertility, which did not require adjustments by mortality, are presented in Table 4.8. The first measure presented is the child-woman ratio. This measure shows that numbers of children per woman are consistently higher among renters than owners, for all subsamples. The difference between the renters and owners is higher in the rural subsamples, probably because the tenure distinction has more meaning in the rural setting.

The next measures presented are mean number of children born per year of marriage, first for women who have been married less than 5 years, which is a measure of early childbearing, and then for all married women, regardless of duration of marriage. It should be noted that this analysis was restricted to women who had only been married once, since those in multiple marriages may have had less exposure to pregnancy. Rural whites are generally in the lower ranges in these measures, in contrast to their high fertility as indicated in other measures presented above. The white samples usually show lower numbers of children born than the black samples; and within each racial grouping, the urban sample is usually lower than the rural sample. The exception to this pattern is the higher mean number of children born to urban whites, which is strongly influenced by the high figure for urban white owners.

Figure 4.1 shows that these two measures follow basically the same pattern within the white sample, with the lowest fertility indicated for urban renters, followed by the rural owners, then rural renters, and with the highest levels among the urban owners. Like the white sample, the black sample shows the lowest fertility among the urban renters, in both measures. However, the two measures show different orderings from the second lowest to highest positions. The rural black owners show an especially high initial fertility, but a rather moderate level (compared to the other subgroups) when marriages of all duration are considered.

Table 4.8. Numbers of children born by duration of marriage and other measures, 1910.

Group	child/ woman ratio	child per yr marr., marr < 5yr *	child per yr marr. all marr *	# ch born widows age 50-54 *	# ch born all married age 50-54 *	# ch born marriage1 age 50-54 *	# ch born marriage 2 age 50-54 *	# ch born marriage 3 age 50-54 *	M **	m **	Mean Square Residual **
urban bl	.37	.66	.41	5.0	5.125	5.15	5.0	na			
owners	.348	.69	.42	4.0	4.8	4.8	5.0	na	1.29	.992	.009
renters	.394	.65	.39	8.0	6.0	6.0	na	na	1.07	.679	.08
rural bl	.62	.81	.49	6.9	7.0	7.6	7.2	4.0			
owners	.403	.92	.42	na	4.0	4.0	4.0	na	1.4	.017	.02
renters	.656	.81	.50	6.9	7.6	7.9	8.8	4.0	1.6	.12	.46
urban wh	.32	.55	.29	4.77	7.25	7.25	na	na			
owners	.333	.73	.69	5.3	6.5	6.5	na	na	.76	.642	.67
renters	.352	.40	.26	4.0	8.2	8.2	na	na	1.08	.35	.23
rural wh	.64	.43	.34	5.5	7.25	7.25	na	na			
owners	.528	.42	.31	5.0	9.0	9.0	na	na	1.61	.581	.52
renters	.771	.44	.37	6.0	6.7	6.7	na	na	1.69	.396	.77

* indicates figures given are means
** calculated following Coale and Trussel 1974, 1975, 1978

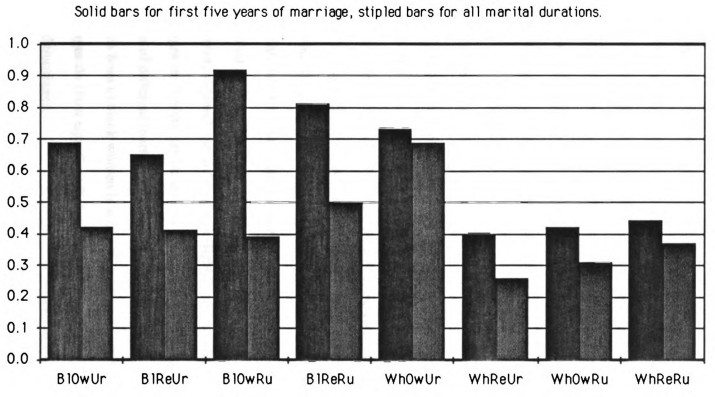


Figure 4.1. Average number of children born per year of marriage.

This pattern could result from initially higher fertility for black rural owners, followed by lower fertility than other groups. One might expect this pattern in conditions of parity-dependent target fertility where conscious efforts are made to control fertility according to numbers of children already born. However, other fertility measures discussed below do not support this interpretation. Among all but urban owners, the black sample has a higher rate of early childbearing than the white sample. The black sample actually shows much less variation in numbers of children born by residence or tenure, especially when all durations of marriage are considered, compared to the white sample. Because of the influence of age on fertility, the measure for the first five years of marriage, which should tap a more uniformly younger sample, is probably more accurate.

In contrast to the above measures, which look at the intensity of childbearing, another summary measure of fertility is completed fertility, the number of children born to women who have completed childbearing. This measure is usually computed using the birth histories of women of various ages over 50 years old. Because of the small sample size at 55+ ages, I use the 50-54 year age group. Some additional births could occur after age 54 but should not be significant. The number of children born to women between 50 and 54 are tabulated in Table 4.8, for various marital statuses, and by tenure, race, and residential groups. The comparisons by different marital statuses show the lower fertility of widows, although the difference is slight for the black sample. The effects of multiple marriages on fertility can be seen by comparing the mean number of children born to woman of different marital statuses. There is no uniform pattern between the number of children born to black women in a first versus a second marriage. Black women in third marriages do show significantly lower numbers of children born than those in first or second marriages.

Figure 4.2 shows completed fertility. On the one hand it can be observed that the patterns by residence and tenure do not follow the same path for the black versus white samples. In the black sample it is the rural renters who have the highest fertility, while in the white sample rural renters have the second to lowest fertility. The highest fertility in the white sample is that of the rural owners, who have the lowest fertility of the black sample. Two patterns are visible. One is the tendency, within any racial and residential grouping, for owners to have lower fertility than renters. This holds for all groups except the white rural sample, which is the smallest of any group. The other pattern is that within all residential and tenure groupings except rural renters, the white sample has higher completed fertility than the black sample.

The final summary measure of fertility levels to be discussed is the measure M. M is the ratio of the age-specific fertility of the study population to a series of natural fertility populations (Coale and Trussell 1974, 1975, 1978). For example, an M of 1.5 indicates that the fertility of the study population is one and a half times higher than the fertility of the series of natural fertility populations studied by Coale and Trussell. This measure has become a standard one since its adoption by the Princeton University European Fertility Project. M is calculated along with another measure, m, which assesses the departure of the study population from the age-specific fertility schedule of a natural fertility population, and is useful for estimating family limitation. Since m will be discussed in more detail below, the methodology behind the calculation of M will be deferred until that time. However, the findings from the calculation of M will be noted here. M is tabulated in Table 4.8, where it can be seen that the fertility levels of the sample population are usually high, often more than one and a half times that of the model natural fertility populations. Of most interest is the ordering of the various subsamples of our population. As with the child-woman ratio and total fertility rate, M indicates the lowest fertility among urban whites, followed by urban blacks, and rural blacks. The highest fertility is seen among

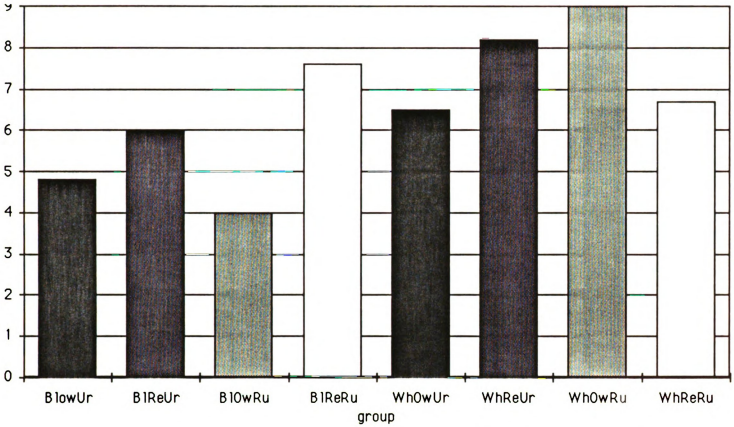


Figure 4.2. Average # of children born to married women 50-54 years old.

rural whites. Within the racial and residential groupings, renters have the highest levels of fertility, except within the urban black subsample.

Table 4.9 presents a summary of the ordering of fertility for the various racial, residential, and tenure subsamples, according to the different fertility measures discussed so far. The considerable variation between different fertility measures is evident in Table 4.9, especially when the samples are broken down into tenure groups. Some of the fluctuations may be due to the small size of the rural white sample, which behaves erratically. For example, while the rural white sample displays the highest level of fertility in several measures, in other measures, such as children born per year of marriage, it is low. Of course, the difference in these two measures is not necessarily incompatible. Because of increased exposure through longer duration of marriage, the rural white subsample may have a higher overall fertility, in spite of lower fertility per year of marriage. The most reliable measures, such as the total fertility rate, M, or even the child-woman ratio, consistently suggest that the lowest level of fertility was in the urban white sample, followed by the urban black sample, the rural black sample, and the rural white sample. A most interesting observation is that there is more similarity in the overall rates by residence than by racial groupings. That is, for example, the urban black rates are usually more similar to the urban white rates than they are to the rural black rates. The implications of this finding are discussed below. The effects of ownership or tenure are less consistent, and it is more difficult to generalize since a total fertility rate could not be constructed by tenure. However, using the child-woman ratio and M, probably the two most reliable measures of those broken down by tenure, renters showed higher fertility than owners in seven out of eight comparisons.

Table 4.9. Comparisons of various fertility measures, 1910.

(table gives rank of each sub-sample according to that measure, from lowest (1) to highest fertility)

	children per year marr, dur < 5 yrs	#children born age 50-54	child/ woman ratio	Total Fertility Rate	Total Marital Fert. Rate	M *		child/ woman ratio	children per year marr, dur < 5yrs	# children born age 50-54	M
Urban bl	3	1	2	2	2	2	Urban bl				
							owners	2	5	2	4
							renters	4	4	3	2
Rural bl	4	2	3	3	3	3	Rural bl				
							owners	5	8	1	5
							renters	7	7	6	6
Urban wh	2	3.5	1	1	1	1	Urban wh				
							owners	1	6	4	1
							renters	3	1	7	3
Rural wh	1	3.5	4	4	4	4	Rural wh				
							owners	6	2	8	7
							renters	8	3	5	8

*order estimated given breakdown by tenure

The Age-Specific Pattern of Fertility.

Although some of the above measures were calculated by ages, they were basically designed to estimate the overall level of fertility in a population. However, the way that fertility varies by age is important, especially when considering the degree to which fertility might be subject to deliberate control or intervention. Fertility is known to fluctuate with age because of biological variation or fecundability, but in a regular manner. This variability has been modeled, so that populations which depart from this pattern can be picked out. These populations are then assumed to be deliberately controlling fertility (Coale 1971; Coale and Trussell 1974, 1978; Henri 1961; Knodel 1977; 1978). This does not mean that only those populations with a specific age-schedule are attempting to control fertility, since deliberate efforts to space children can result in an age-specific fertility pattern similar to natural fertility (Knodel 1987). Historical demography, especially in the West, has shown that most fertility change over the past several hundred years has occurred via a change in the age-specific schedule of fertility behavior, especially through increased reduction in fertility at the later childbearing ages and higher parities.

The measure m indicates the degree to which a population departs from the age-specific fertility schedule of a group of ten natural fertility populations, as compiled by Henri (1961), Coale (1971) and Coale and Trussell (1974, 1975, 1978). The specific methodology for calculating m has been supplied by Coale and Trussell. It is calculated by first constructing age-specific marital fertility rates for the population in general. Own-children methods as described above were again used, and follow very closely the methodology described above. However, one departure should be mentioned. In order to conduct this analysis by tenure, the various adjustments used in the calculation of the total fertility rate were not applied, since adjustments for mortality and undercounting were not available by tenure.

Table 4.10 shows the percentage of children born that were surviving for women over age 50. There is considerable fluctuation by residence and racial groupings, as well as by tenure. The survival rate was higher for owners for the rural samples, and higher for renters for the urban samples. Since different adjustments were not available by residential or tenure groupings, the data were accepted at face value for construction of M and m. This is likely to create some error in the estimation of M, the level of fertility, probably causing M to be a bit low. This error, however, should not have a large effect of the measure m. As a test, the adjustment factors were added to one set of calculations of m and M. The change in m was less than .01, and the resulting mean square error was increased, which suggested a better fit of the raw data to the model fertility age-schedule without the adjustment.

Table 4.10. Children born and surviving to women age 51+.*

	white renters	white owners	black renters	black owners
Vinton (N)	(3)	(6)	(59)	(16)
# born	6.0	6.33	7.38	5.87
# surviving	4.33	5.33	4.55	3.6
% surviving	75	88	63	71
West Point (N)	(12)	(24)	(18)	(33)
# born	6.75	6.79	7.83	5.6
# surviving	6.09	4.66	3.72	2.9
% surviving	87	73	52	48

*all figures except Ns are means

Once the age-specific marital fertility rates were computed, they were compared to the model schedule of "natural fertility" rates, and least squares regression was used to estimate M, the level of fertility, and m, the degree of departure from the natural fertility age-schedule. Coale and Trussell (1978:203) state that

"in any population, the ratio of marital fertility r(a) to natural fertility n(a) at a specified age is given by

$$r(a)/n(a) = M \exp [m * v(a)].$$"

They also state that "the function v(a) expresses the tendency for older women in populations practicing contraception or abortion to effect particularly large reductions of fertility below the natural level" (Coale and Trussell 1974:188).

The values of n(a) and v(a) as given by Coale and Trussell (1978:205) and as used in this analysis are as follows:

Table 4.11. Values of n(a) and v(a) used for calculation of m and M.

Age group	20-24	25-29	30-34	35-39	40-44
n(a)	.460	.431	.395	.322	.167
v(a)	0.0	-.279	-.667	-1.042	-1.414

Values for ages 15-19 and 45-49 were not used, as suggested by Coale and Trussell, because of the high degree of fluctuation at the ends of the reproductive period. The above equation expressing the relationships between the M, m, r(a), n(a), and v(a) can be rewritten as

$$\ln[r(a)/n(a)] = \ln M - m*v(a)$$

which can be reinterpreted in the form of

$$y = c + m(x)$$

Since r(a) is the age-specific marital fertility rate calculated for the population in question, and v(a) and n(a) are supplied from Table 4.11, the M and m in the equation can then be estimated using least squares regression. There are other methods to solve the equation, but least squares regression is recommended by Coale and Trussell (1978) as giving the most equal weight to every age group, and was the procedure followed in this analysis.

The results of this analysis are indicated in Table 4.8. Values of m range from 0.017 to 0.992. Coale and Trussell suggest that values of greater than 0.2 to 0.3 begin to suggest fertility control, with modern contraceptive populations often having m values well over 1.0. Although there is considerable ambiguity in values around 0.2 to 0.3, most of the values calculated for the sample population are sufficiently above 0.2 to suggest some deviation from the natural fertility schedule. Only the rural black population exhibits an age-specific fertility schedule clearly similar to that of the natural fertility models. The highest degree of deviation, and thus the best indication of family limitation, is in the urban black sample, and within it, especially for owners. The urban white and the urban black samples also exhibit an m value over 0.3, again especially for owners. For all three of these subsamples, the m value for owners is considerably higher than that of renters.

The final column in Table 4.8 gives the mean square residual, which is an indication of the degree of fit of the solution to the equation. It can be seen that this measure is fairly high, which indicates that most of the observed schedules of age-specific fertility rates do not easily fit the model schedule. In fact, Coale and Trussell (1978)

suggest that mean square errors of more than 0.01 indicate divergence. The high degree of divergence may partly stem from small sample size. It can only be hoped that the overall finding in the degree of family limitation between the various subsamples is still accurate. However, it is suggested that little confidence be given to small differences in m values, because of this lack of fit.

While the overall summary m, which is presented in Table 4.8, is of greatest importance, differences in individual age-specific fertility rates can also be informative. Comparisons of single age-specific rates, however, are especially problematic for a sample as small as this one, which can create large fluctuations in age-specific rates. These individual age-specific fertility rates are shown only for the larger black subsample, in Figure 4.3. The age-specific fertility rates [f(a)] are plotted against the age group for which they correspond (only the beginning of the age group is printed on Figure 4.3: 20 indicating 20-24, 25 indicating 25-29, etc.). This technique is useful because the resulting curve generally takes on a concave, as opposed to convex, look when there is a significant degree of family limitation. This is because the sharper reduction in fertility that occurs in the middle to late age groups under family limitation causes the curve to buckle downward. Under a regime of natural fertility, the reduction in fertility over the ages is due to reduced fecundability and is more gradual, resulting in a convex curve.

Looking at Figure 4.3, it is possible to compare the curves for the rural subsamples, which exhibit the lowest m values, versus the urban subsamples, which exhibit moderately high m values. Although the curves are interrupted by the erratic fluctuations between the age 25-29 and age 30-34 age groups for the rural owners, there are observable differences between the curves of the rural versus the urban subsamples. The curves begin to buckle much earlier for the urban subsamples, at age 25-29 for urban renters and at age 30-35 for urban owners, compared to the rural samples. This suggests

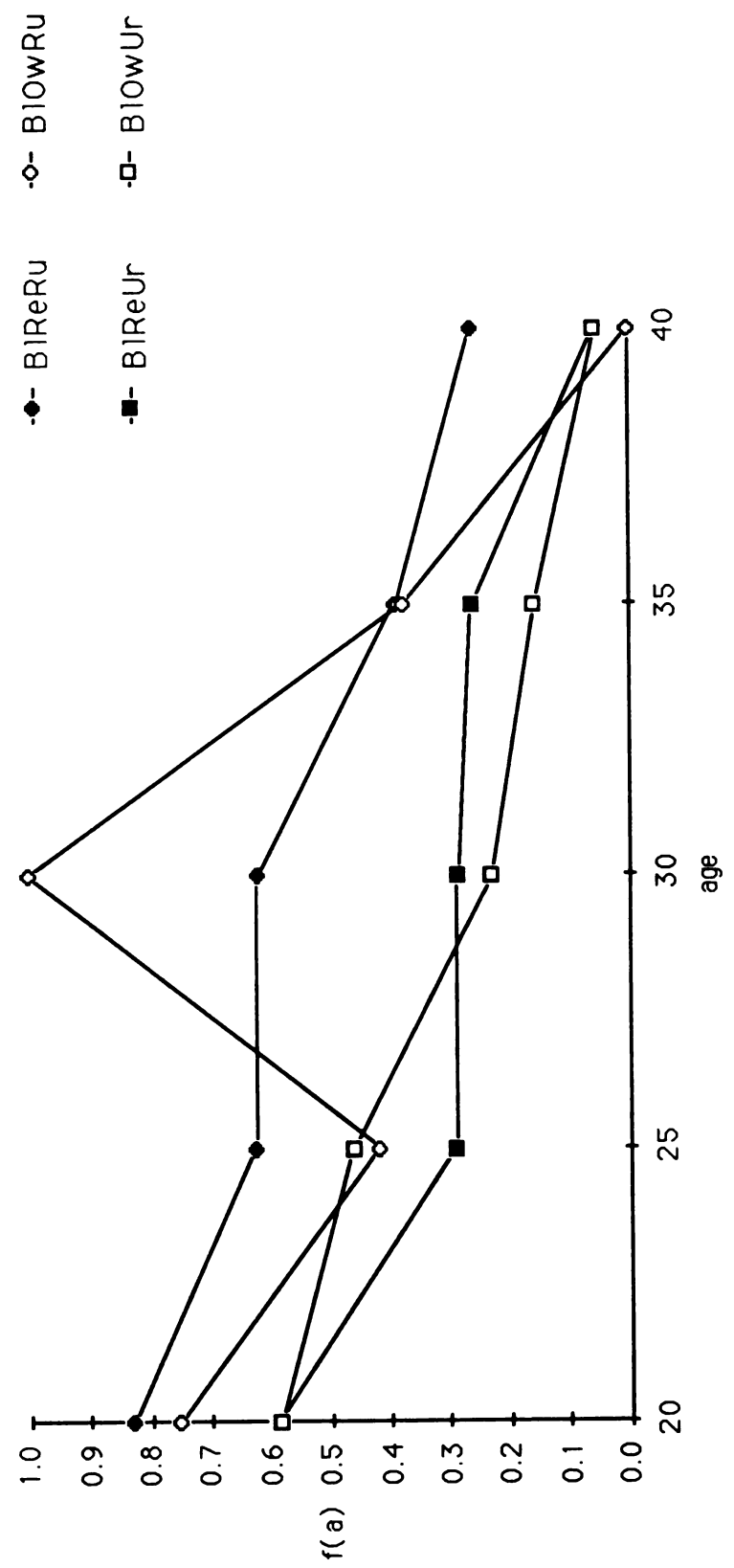


Figure 4.3. Age-specific fertility rates, 1910, black sample.

more and longer term fertility limitation for the urban samples, to the extent that younger age groups are also affected.

Illegitimacy

The final aspect of fertility to be examined is whether births take place within marriage. Because of the close association of conjugality and residence in Western thought, illegitimacy is often associated with departure from a standard of household composition and residence (the two parent nuclear household) as well as departure from the standard of birth within marriage. Therefore, both the analysis of marriage and the analysis of household composition and structure provide useful perspectives in this study.

In regard to marital status, it was shown above that marriage was a very common experience for Vinton residents, being universal for black women, and almost as common for white women. However, at the same time, the analyses showed that women were often married more than once. Periods between marriages increase the possibility of illegitimate births. The above analysis of fertility suggests that childbearing in the Vinton community was not as broken out or as subject to manipulation as in later times (i.e. was more "natural"). Thus the most important ingredient in the relationship between birth and marriage is the incidence and nature of marriage. Factors such as knowledge or use of contraception, and risk-taking strategies or behaviors, are more applicable in studies of contemporary illegitimacy. They have much less impact here, heightening the relative importance of a general understanding of marriage, marital status, and household composition.

To understand illegitimacy in this population, a group of women who had illegitimate births are identified and scrutinized. Direct data on illegitimacy is not provided

by the census, although careful use of the available data has allowed indirect estimation. While the absence of direct data excludes speaking of either illegitimacy rates or ratios, this indirect estimation allows an in-depth, individual level look at a number of women who had an illegitimate birth around the turn of the 20th century in Vinton. Although men as well as women can have illegitimate children, only women give birth and only women's birth history is recorded in the census. Thus, it is both theoretically and practically expedient to orient this research to the life experiences of women.

Since this data on illegitimacy has had to be estimated from the household enumeration, a brief explanation of methodology follows. The basic technique was to compare the number of years a woman had been married to the age of her first born child. Although some enumerators did provide information down to the month for marriages and births, the more common pattern of rounding to a year meant that at least one year's leeway had to be given. For a women to be included in the sample, a series of specific types of information needed to be present and a series of conditions met. These conditions were: 1) a woman had to be in her first marriage, since the number of years married given in the census referred only to the current marriage; 2) both marital status and number of years married had to be provided; 3) both the number of children born and number of children surviving had to be given and all children had to be surviving; 4) besides surviving, all children had to be physically present in the household, with their ages given. Given the presence of all of this information, the relationship of the first birth to marital status at the time of that birth could be assessed. For example, a woman who had been married five years, in her first marriage, and who had borne six children, all six of whom were surviving and present in the household, and the age of the eldest being seven years, had apparently had an illegitimate birth. Should any part of this information be missing, the assessment could not have been made. In addition to these first married women, women who had borne children but who had never been married were also included in the sample.

The strength of these restrictions means that only a small sample of the total community, and probably only a sample of illegitimate births, was included. It may be useful to reflect on the possible biases of the sample before proceeding. Missing information was generally not a problem. However, a major selective bias for inclusion in the sample was total survivorship of children. Many women had some children who had not survived, making it impossible to judge whether the oldest child listed in the census was really the first born and thus how many years had passed since the first birth. This perhaps biased the sample toward families in which children were physically stronger, or in which better socio-economic conditions contributed to greater survivorship. Also, even when all children were surviving, in many cases all of these children were no longer living in the parental household. This also made it impossible to judge the number of years since the first birth. This especially excluded older women from the sample, since their children would be older and less likely to be living at home. While this bias is not especially alarming, it is important to note that the birth and marriage experiences discussed are predominantly those occurring over the past 15 years, from about 1895 to 1910, during which time these women would have been approximately 15 to 30 years old. Birth experiences occurring much earlier are less represented by the sample.

One hundred nine women met the strict criteria set out above. They form a lowest possible estimate of women having had an illegitimate birth, since so many women could not be considered due to the absence of some children from their households. These 109 women represent 6.8 percent of the total sample of 1,601 women 16 years or older. The average age of the 109 women was 29 years, as opposed to an average age of 36 years for the total 1,601 women.

Table 4.12 presents the sample group by ethnicity and tenure of farm or house. The most obvious result from Table 4.12 is that illegitimate births, at least as gathered from data reported to the census taker, occur more frequently in the black sample, and more frequently in the rural sample, for both blacks and whites. The largest category of women having had an illegitimate birth is the rural women from households that rent their farms (N= 68, the next highest category being 19). These 68 women make up 11.8 percent of all women in black rural households that rent their farms. A higher percentage of women with an illegitimate birth occurs in the sample of women from rural black households that own their farms, where at least 16.9 percent of women had borne an illegitimate child.

Table 4.12. Women with illegitimate births.

	Blacks		Whites	
	N	Percent of all black women	N	Percent of all white women
Vinton sample				
renters	68	11.8	4	6.9
owners	11	16.9	1	2.5
West Point sample				
renters	19	8.0	0	0
owners	11	5.3	1	.4

No clear pattern emerges as to any relationship between the proportions of women having had an illegitimate birth and land tenure. Opposite patterns are observed for the rural versus urban samples -- lower illegitimacy for rural black renters compared to rural black owners and higher illegitimacy for urban black renters compared to urban black owners. This opposition suggests that different relationships between tenure and marriage may operate in the rural versus urban setting. The white sample is so small that comparisons by these detailed breakdowns seem unsupportable. However, it should be noted that the highest proportion of white women having an illegitimate birth is for the rural

rent farm category, and that the percentage here, 6.9 percent, is only slightly higher than the lowest percentage for any of the black subsamples.

The higher proportions of woman having had an illegitimate birth are in the rural setting, despite the fact that sex ratios are 90 (males per 100 females) for the rural sample and 75 for the urban sample. The very low sex ratio for the urban sample is most likely the result of extensive rural-urban migration of black women, who could easily find work in town, usually as cooks, laundresses, or general domestics. There was generally less work for black men in small urban centers at this time.

Relatively higher illegitimacy in the rural sample can also be seen in another measure, that of the number of years between the illegitimate birth and subsequent marriage. This measure was calculated by visual inspection of each case. For the rural sample, the maximum number of years between the illegitimate birth and marriage was 11 years, with a mean of 3.3 years between the birth and marriage. In the urban sample, the maximum number of years between the illegitimate birth and subsequent marriage was 9 years, with a mean difference of 2 years. Again, this is despite the fact that the lower sex ratio for the urban sample would suggest that urban women might have greater difficulty finding a spouse.

With these general observations on the tenure and residence of women with illegitimate births, it is now time to take a closer look at the marital and residential status of the group of women who had an illegitimate birth. Of the 109 women, 14, or 12.8 percent were single. The rest were in their first marriage (the only other choice given the restrictions of the analysis). Of these married women, only two out of 94 women had children with more than one surname or with a surname different from their own and that of their spouse. That is, in the majority of cases, the illegitimate child bore the name of the

subsequent spouse and legitimate children. The census enumerators sometimes noted if children were adopted; in none of these cases was there any such notation. It is not possible to say from these data if the current spouse was the biological father of the illegitimate child(ren), although it is assumed that the residence patterns (and stated relationship of "child" by the census taker) indicated social parentage.

What about the 14 women who had children and were not married? First of all, it is important to note that they are all black. No white woman indicated that she was single and had borne children. Their ages ranged from 18 to 45. Most had only one or two children, although one single women age 35 had borne six children and another single woman age 35 had borne three children. Eight lived in the rural community and six in town. Of those living in town, two were cooks, two were laundresses, and two did not list an occupation. Of special interest is the residential status of these women. Being a single mother did not necessarily mean these women lived alone with their children. In fact, only four of the 14 headed their own households and lived alone with their children. Seven, or 50 percent, lived with one or both of their own parent(s). This residence pattern was not restricted to the youngest women in the sample, and included one 35 year old woman and one 45 year old woman. The remaining three single women lived in the household of a sister.

One cannot say from census data, or any other information on residence, or even marriage after an illegitimate birth, how these births were viewed. But the fact that so many of these women had gone on to marry suggests that the illegitimate birth did not set them apart or create a stigma strong enough to rule out marriage. Although the mean difference between years married and birth of first child was two years for the urban sample and three and one third years for the rural sample, 67 percent of the women had married within one year. It is possible that the birth, if not the conception, of a child may have spurred marriage.

Most of these women only had one illegitimate birth. Of the single women, only two women had more than one child. Of the married women, one woman had borne three children before marrying, and three women had borne two children before marrying. All others had borne only one child before their marriage. These figures, along with the other data presented above, suggest the overall prominence of marriage, for both black and white women. However, the higher incidence of illegitimacy for black women may stem from subtle variations in the timing and duration of marriage, as well as the relationship between marriage and childbearing.

CHAPTER 5

AGRICULTURAL PRODUCTION, TENANCY, AND THE HOUSEHOLD

Introduction

Chapter 2 presented a description of the basic nature of tenant farming in the postbellum South, and gave a detailed background on the study area. This chapter lays out the analysis of agricultural production, and relates it to the developmental cycle of the household. The majority of the analysis is based upon 1880 agricultural census data, which was linked to the 1880 household data, as described in Chapter 1. Use is also made of a number of chattel deeds, or liens on crops, recorded in the Clay County chattel deed books for 1879. The 1879 deeds correspond best with the data listed in the 1880 census. Agricultural data for 1910 comes partly from the population schedule of the census, which indicated whether a household owned or rented their farm. The population schedule of the 1910 census did not make a distinction between sharecroppers and renters, as was made for the 1880 sample in the agricultural schedule. Analysis is also conducted utilizing a ledger from the Vinton landlord, Henry D. Watson, (Watson collection n.d.), whose operation was discussed more generally in Chapter 2.

As mentioned in Chapter 2, the study community was overwhelmingly rural, and involved in tenant farming. Eighty one percent of households in the 1880 Vinton data set were black. Of these black households, 6 percent owned their farm, 47 percent rented their farm, and 47 percent sharecropped. Of the white sample, 64 percent owned their farm, 25 percent rented their farm, and 11 percent sharecropped. In 1910, the percentage

of households that were black had increased from 81 percent to 90 percent. The percent of the black household that were tenants had decreased from 94 percent to 85 percent. The percentage of white households that rented had increased from the 36 percent of 1880 to 50 percent in 1910.

As was common in this black prairie region, agriculture during this period was focused on cotton production. Corn was also a major crop and some vegetables, especially sweet potatoes, were grown. The most important livestock were mules or horses, less frequently oxen, for traction. Swine and poultry were most important for subsistence. Most farms were cultivated with household labor, with a small percentage using part-time hired labor.

Agricultural Production by Race and Tenure.

Table 5.1 presents a basic description of agricultural production in 1880, broken down by tenure and racial groupings. One of the most consistent patterns is that within any tenure grouping, white farms usually show a higher mean level of production or a higher value of basic inputs (machinery, livestock, or value of farm) than black farms. Also, within either racial grouping, owners usually show the highest level of production and wealth, followed by renters, and then sharecroppers. Although these relationships are not without exception, they are overwhelmingly consistent. In many instances, the differences between the black and white samples is so great that the poorest white sub-sample, the white sharecroppers, have farms that are better supplied than not only black sharecroppers, as would be expected, but also black renters. In fact, in 12 of the 20 columns, this is the case. Those cases in which the white sharecroppers show a lower value or level of production than black renters are Columns 4, cotton bales per acre; Column 5, cotton bales per worker; Column 9, money spent on wages; Column 12,

Table 5.1. Agricultural measures, 1880, expressed as means.

	value ($) produced (1)	value prod /w (2)	value prod /c (3)	cotton bales /acre (4)	cottton bales /w (5)	$ value of farm (6)	$ value of stock (7)	$ value of machinery (8)	$ spent on wages (9)	$ spent on fertilizer (10)
Group N										
blow 22	1023	337	263	.29	6.65	1530	263	50	129	na
blre 189	545	186	150	.4	3.1	614	150	30	81	10
blsh 192	536	187	155	.31	3.3	505	126	26	38	5
whow 64	1992	780	695	.38	10.2	4276	552	214	298	17
whre 26	636	228	214	.35	4.05	1050	275	52	76	na
whsh 12	604	190	155	.38	2.6	272	197	41	67	na

Table 5.1 (cont'd.).

	traction	traction /w	traction /acre	cows	swine	fowl	unimproved acres	cultivated acres	cultiv. acres/w	cotton acres/w
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Group N										
blow 22	3.7	1.4	.09	9.8	9.4	18.9	74	82	33	27
blre 189	1.6	.61	.11	4.0	6.4	17.0	15	31	12	9
blsh 192	1.4	.57	.04	4.9	7.5	15.6	4	35	14	11
whow 64	5.8	1.9	.18	17.6	18.2	50.0	276	130	46	31
whre 26	2.9	1.1	.25	8.2	9.8	21.3	6	37	14	11
whsh 12	1.7	.58	.05	4.7	7.4	28.4	30	37	12	8

traction per worker; Column 13, traction per acre; Column 16, fowl; and Column 20; cotton acres per worker. Several of these measures deal with productivity, suggesting that while most indicators suggest wealthier and more productive farms among whites, the productivity levels of white sharecroppers was not that different from that of black sharecroppers. Sharecroppers would have the least amount of control over the inputs to the crop,and would have the highest level of these inputs supplied from outside their own household, which may explain the lack of differentiation between white and black sharecroppers.

Traction is a very important variable in tenant farming. It was defined in this analysis as mules, horses, or oxen, with cattle listed separately. It is shown in Columns 11, 12, and 13 in several different ways. The higher traction of renters compared to sharecroppers follows from theoretical understandings of these two arrangements (see Chapter 2). The relationship between renters and owners in reversed in Column 13 because the acreage difference between owners and renters is proportionately greater than the traction difference between these groups. The other livestock categories consistently show higher numbers for owners. This would give owners a reduced dependence on purchased food. The relationship between renters and sharecroppers regarding other livestock is less consistent.

Besides traction, the other crucial variable in agricultural production is acreage. Here, owners show more cultivated acres, both absolutely, and per household worker (defined following the age criteria discussed in Chapters 3 and 4 and shown in the Appendix). Owners also have a much higher number of unimproved acreage. Unimproved acreage was important in raising livestock and in hunting, again suggesting that owners could have depended less on purchased food. Their higher number of unimproved acres also suggests that owners could expand agricultural production more

easily than renters or sharecroppers. Chayanov's work on the relationship between agricultural production and demographic variables (1966) was conducted under the assumptions that households had the opportunity to expand production if they desired.

Most of the productivity measures, such as Column 2, value produced per worker; Column 3, value produced per consumer; Column 4, cotton bales per acre; or Column 5, cotton bales per worker, show considerably higher productivity for owners. Value produced is a category provided by the census enumerator, and it is intended to estimate both cash crops and the value of goods consumed at home. This difference is most likely related to owners' higher traction, better or more tools and machinery (Column 8), and perhaps ability to choose the more fertile land, since their farms were larger. Higher productivity may have been possible for owners because their higher level of wealth and greater autonomy meant that they could hire extra labor at crucial points in the crop cycle. Cotton is a very labor intensive crop, but one in which labor needs fluctuate dramatically over the growing season. The harvest can be ruined fairly easily if it is not gathered quickly, especially in a rainy season. Those farmers able to hire or otherwise mobilize labor for that task would be at a tremendous advantage. However, it is interesting to note that Column 4, cotton bales per acre (this is acres planted in cotton only) does not show the usual pattern of higher yields for owners, followed by renters and sharecroppers. The low figure for black renters is especially interesting, and may represent a decreased devotion to the cotton crop by black owners, who would have had more autonomy, and perhaps lowered demands to focus work on cotton, than black sharecroppers.

This suggestion is not especially supported when cotton production is viewed another way, however. Table 5.2 shows a number of variables that were constructed to explore crop mix and agricultural strategies. Column 4, percent of cultivated acreage in cotton, does not suggest that black owners were de-emphasizing cotton. Instead they

show the highest percentage of cultivated acres that are planted in cotton of any group, with no clear difference between renters and sharecroppers. There is no overlap between the black and white samples for the percentage of acres in cotton; all black tenure subsamples planted a larger percentage of their land in cotton than white subsamples. This is probably because of fairly similar needs for cash or rent from cotton, despite differences in size of holdings. Corresponding to this is the higher percentage of cultivated acreage in food crops for the white sample (Column 5). It should be noted that Columns 4 and 5 are not inverse by definition, since other crops, such as hay, oats, or tobacco, were not included in either calculation. Comparing Columns 4 and 5, the reader will note that they often sum to over 1.00. This is undoubtedly because of estimation errors from the census, which calculated total cultivated acres as a separate question from questions about specific crop acreages. This category is not calculated by adding up the acreages reported for various crops.

Several other variables provide an indication of differences between farms. Owners produced more food, both absolutely (Column 6), and relative to the number of consumers (Column 7), than renters, who were followed by sharecroppers. The pattern noted above, that within any tenure group, whites produced more than blacks, is also noticeable, as is the fact that white sharecroppers once again fall equal to or above not only black sharecroppers but also black renters.

Two specific food crops investigated were corn (Column 2) and sweet potatoes (Column 3). Both were important dietary staples, although corn was also used as livestock feed. Both show higher levels for owners. Tenure seemed to have little effect on corn production, and little effect on sweet potato production for the white sample. Black sharecroppers showed lower sweet potato production than renters or owners. Similarly, the black sharecroppers show an especially low ratio of bushels of food per bale of cotton

Table 5.2 Agricultural measures, crop mix and food-related, 1880, expressed as means.

	cotton acres/w	corn acres/w	sweet pot acres/c	% acres in cotton	% acres in food	bushels food	bushels food /c	bushels food/ bales cotton
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Group N								
blow 22	21	7	.15	.71	.38	44	15	5.2
blre 189	7	4	.12	.64	.4	30	10	5.2
blsh 192	9	4	.04	.69	.32	16	5	2.8
whow 64	34	18	.22	.63	.41	94	26	9.5
whre 26	9	4	.12	.61	.46	49	15	4.8
whsh 12	8	4	.11	.61	.38	42	10	11.5

produced (Column 8). It is likely that this category is influenced by the increased control landowners had over sharecroppers. The very high number of bushels of food for white sharecroppers is puzzling, especially since they do not show a high percentage of acres in food (Column 5).

Agricultural Production by Household Type and Life Cycle.

The previous discussion has focussed on variation in agricultural holdings and production by racial and tenure groupings. Because these social divisions show importance, these divisions are retained while further examining variation by household composition and life cycle stage.

Chapter 3 showed that the majority of household in the study area were nuclear family households composed of a married couple with or without children. Some, although not many, households also included relatives of the head (or spouse), boarders, and servants. Table 5.3 shows 10 summary agricultural measures according to household type. Household types are the same as those discussed in Chapters 3 and 4: 1-2 is nuclear; 3 is single parent; 4-5 is adult siblings or other kin; 6 is unrelated persons; and 7 is solitary. The first two rows for each household type present information broken down only by race, with subsequent rows broken down by race and tenure. Because the subdivisions are so numerous, and some Ns subsequently small, patterns are easiest to discern when looking first at the divisions by race alone. Any given pattern is not totally consistent across all of the variables (columns), or for all subsample within each racial grouping, but general patterns can be picked out.

Initially it can be observed that among the black sample, household type 3, single parent farms, seem to have less equipment, livestock or other resources than type 1-2, two-

parent farms. This is the case for some but not all variables in the white sample. Household type 4-5, siblings and other relatives, is generally much better situated than any other household type among the white sample, but not especially so among the black sample. This is a household type that was noted to be relatively more common among white owners in Chapter 3. It was suggested that this incidence could be related to the conservation and transmission of family wealth. This suggestion is reinforced by the greater wealth of these households, as seen here. In contrast, black households in type 6, unrelated persons, show greater agricultural resources than many other household types among the black sample. It should be noted, however, that this finding is largely created by the one relatively wealth black owning household of type 6, and that the black renting and sharecropping households of type 6 are not especially wealthier than black renting and sharecropping households of other types. This is an example of the difficulties in dividing the total sample into 30 subsamples.

Household type 7, solitary, almost by definition shows high values in the categories that are per capita, such as Columns 1, 7, and 9. However, overall, these households show a lower value of agricultural inputs for the black sample. The white sample shows much fluctuation, depending on which variable is observed, but overall shows considerable wealth, especially for one household member. Were variables such as farm machinery (Column 4), or farm value (Column 5), or traction (Column 2) calculated per capita, this household type would probably show the greatest wealth in agricultural inputs of any household type, for the white sample.

Table 5.4 shows the same categories of information broken down by household life cycle stages rather than household types. These stages are the same ones used in Chapter 3, and are defined by a combination of mother's age (or father's age if mother not present) and age of children present in the household. Stage 1 is the youngest stage and Stage 5 is

Table 5.3. Agricultural measures by household types, 1880, expressed as means.

Type	Group	N	acres/ capita (1)	trac- tion (2)	value stock (3)	value mach (4)	value farm (5)	value prod (6)	valpd/ capita (7)	% ac cott (8)	ac spot /capita (9)	% ac swpot (10)
1-2	bl	340	7	1.7	149	36	730	576	109	64	.06	02
1-2	wh	74	16	4.3	423	138	2638	1345	265	59	.12	03
1-2	blow	19	17	3.7	247	48	1479	1036	196	64	.1	06
1-2	blre	161	6	1.7	154	32	635	555	102	6	.08	03
1-2	blsh	160	8	1.5	130	28	697	540	106	68	.03	0.5
1-2	whow	46	20	5.2	521	186	3202	1785	353	6	.15	04
1-2	whre	19	10	3.4	301	60	1255	622	122	54	.09	01
1-2	whsh	10	10	2	212	48	325	605	99	61	.09	01
3	bl	41	7	1.4	127	19	552	484	89	65	.05	02
3	wh	12	16	2.8	362	114	6304	1278	259	49	.14	07
3	blow	2	16	2.5	200	25	1025	576	171	67	.12	01
3	blre	17	6	1.2	132	18	619	504	94	59	.06	04
3	blsh	22	6	1.4	115	21	117	456	78	70	.03	0.7
3	whow	9	20	3.3	422	135	7572	1365	332	53	.15	02
3	whre	3	2	1.3	18	32	600	500	41	31	.12	30
3	whsh	0										
4-5	bl	4	5	1.7	106	11	200	609	102	67	0	0
4-5	wh	7	102	8.5	697	375	5407	3442	1309	67	.1	0.1
4-5	blow	0										
4-5	blre	2	3	1.5	122	10	200	600	62	56	0	0
4-5	blsh	2	7	2	89	12	0	618	142	76	0	0
4-5	whow	6	17	9.8	800	437	6267	3954	1490	67	.112	0.2
4-5	whre	1	14	1	75	8	250	375	187	71	0	0
4-5	whsh	0										
6	bl	6	8	1.6	184	22	1067	632	85	56	.06	0.3
6	wh	4	14	4.5	491	117	1475	1375	141	60	.1	0.3
6	blow	1	3.7	6	700	125	3520	1700	425	67	.5	01
6	blre	3	3	1.7	175	7	250	315	52	57	0	0
6	blsh	2	5	.5	60	7.5	na	200	25	49	0	0
6	whow	1	51	17	1600	450	5000	2500	500	70	.4	0.7
6	whre	1	5	1	125	5	460	250	62	50	0	0
6	whsh	2	0	0	120	6	220	na	0	na	0	na
7	bl	10	23	.9	84	14	227	571	373	72	.20	02
7	wh	5	148	7	461	167	4020	1944	1844	50	.15	.3
7	blow	0										
7	blre	6	11	1	90	19	250	324	171	72	.34	03
7	blsh	4	42	.75	74	5	160	901	676	73	0	0
7	whow	3	226	9.7	543	247	6035	2473	2474	59	.17	0.1
7	whre	2	31	3	337	47	650	1150	900	37	.12	33
7	whsh	0										

the oldest stage. The sample is again broken down only by race in the first two lines of each household stage, and subsequently by racial and tenure groupings. Although there are still problems with low sample Ns and empty cells, the breakdown by stage is more regular than that by household type.

Chapter 3 showed a regularity in household composition, especially regarding the number of workers, the number of consumers, and the dependency ratio, over the household life cycle. While the number of consumers most frequently peaked in Stage 3 (with some variation by racial and tenure subsamples), the number of workers usually peaked in Stage 4. The consumer/worker ratio usually peaked, which means was most "unfavorable," in Stage 4 also. Most of the variables in Table 5.4 show steady increases from Stages 1 to 3 (or 4 in some cases), and then decline either in Stage 4 or 5. This is particularly the case for absolute values like value of livestock (Column 4) or value of farm (Column 5), which measure absolute wealth, rather than calculated values like percent of land in cotton (Column 8). Percent of land in cotton shows no clear relationship to household life cycle, nor does percent of land in sweet potatoes (Column 10). Sweet potato bushels per capita shows a steady increase over the household stages for the white sample, but not the black sample. As would be expected, given that households are smallest at Stages 1 and 5 (see Chapter 3), acres per capita are highest at Stages 1 and 5.

Figures 5.1 and 5.2 illustrate the effects of household life cycle on the value of standard agricultural inputs like machinery, livestock, land, and the value produced. The black samples shows a gradual and uninterrupted increase in the value of the farm's machinery, and a slight peak and subsequent decline in livestock value. The same pattern is shown for the white sample, but with some very dramatic increases in Stages 5 for machinery and Stage 4 for livestock. Farm value increases more rapidly than livestock or machinery, for both blacks and whites, and then shows more fluctuation between Stages 3

Table 5.4. Agricultural measures by household stages, 1880, expressed as means.

Stage	Group	N	acres /cap (1)	trac- tion (2)	value stock (3)	value mach (4)	value farm (5)	value prod (6)	val pd/ capita (7)	% land cotton (8)	spot/ capita (9)	% land swpo (10)
1	bl	21	10	1	99	16	297	394	136	66	.07	01
1	wh	5	28	3.8	342	84	1200	1098	483	66	.05	0.2
1	blow	0										
1	blre	10	9	1	102	20	142	375	75	60	.1	01
1	blsh	11	11	1	95	9	180	413	147	72	.05	0.4
1	whow	2	21	5	375	85	1500	1283	321	71	12	0.5
1	whre	1	61	3	370	75	600	1300	1300	75	0	0
1	whsh	2	17	3	293	88	381	811	237	56	0	0
2	bl	167	7	1.5	130	25	784	540	94	64	.05	02
2	wh	38	17	4.2	468	145	2519	1387	257	56	.11	04
2	blow	8	29	4.6	196	44	2414	1786	339	57	.11	14
2	blre	70	5	1.4	138	47	639	519	83	60	.07	03
2	blsh	89	6	1.3	116	22	520	441	79	69	.02	0.4
2	whow	23	24	4.8	582	198	931	1845	357	57	.13	06
2	whre	1	7	3.8	335	79	1727	703	118	51	.06	0.7
2	whsh	4	4	1.5	179	29	245	465	71	63	.07	02
3	bl	77	7	2.0	170	42	649	608	94	64	.04	0.6
3	wh	13	12	3.5	366	132	2975	1360	213	62	.14	01
3	blow	4	9	3	219	48	825	625	105	60	.1	0.7
3	blre	38	7	2.1	174	32	581	607	90	64	.04	01
3	blsh	35	7	1.7	156	53	845	607	98	66	.02	0.5
3	whow	12	13	3.7	384	139	3192	1411	221	62	.14	01
3	whre	1	5	2	155	50	380	750	125	62	0	0
3	whsh	0										
4	bl	45	8	2.1	167	30	624	726	117	66	.04	03
4	wh	14	12	3.6	4114	151	2754	892	122	62	.16	03
4	blow	4	10	3.3	292	57	867	624	56	80	0	0
4	blre	21	6	2	191	39	554	634	97	58	.06	05
4	blsh	22	10	1.9	123	22	742	806	143	72	.02	0.5
4	whow	8	16	4.7	564	229	636	1290	179	64	.112	02
4	whre	4	6	2.5	231	37	401	233	31	48	.23	05
4	whsh	2	11	1.5	182	10	192	487	73	77	.15	02
5	bl	68	10	1.7	169	32	777	520	141	63	.09	02
5	wh	17	20	4.8	360	1109	5561	1651	444	53	.16	05
5	blow	5	10	2.6	294	43	825	420	129	70	.13	02
5	blre	39	7	1.6	152	56	785	541	139	59	.11	03
5	blsh	23	13	1.6	164	21	200	511	146	66	.06	0.5
5	whow	11	25	6.3	438	139	545	2076	600	56	.19	02
5	whre	5	15	2.4	270	26	633	681	156	50	.1	11
5	whsh	3	16	2.5	227	87	565	792	264	47	.17	0.9

and 5. Value produced shows a peak in Stage 4 for the black sample. The white sample shows the same pattern, but then a second increase from Stage 4 to Stage 5. Figure 5.3 shows the relationship of traction and life cycle stage for both samples, with the black sample peaking in Stage 4 and the white sample showing an almost inverse pattern.

Overall, this analysis suggest that some agricultural inputs, such as total livestock and machinery, generally increased over time and were influenced by the household life cycle. However, the household life cycle is itself a proxy for time. This means that the relationship between the household life cycle and these agricultural measures may largely be the result of accumulation over time, without regard to household life cycle in the sense of household composition. Yet many agricultural measures did not show an uninterrupted increase over time. Those measures which peaked in Stages 3 or 4, with a subsequent decline, are most likely to show a stronger influence by the fluctuations in household composition associated with the household life cycle.

Because renters and sharecroppers often provided less of the farm's machinery and livestock, and had less of a chance to accumulate these things over time, the relationship between the household life cycle and the value of these inputs was plotted separately by tenure. This is shown in Figures 5.4, 5.5, 5.6, 5.7, and 5.8. One observation is that for all variables, the black sample generally shows a more bell-shaped distribution, suggesting an increased importance of household composition relative to agricultural wealth in black households, versus accumulation purely with time. Owners do not necessarily show more correspondence between the life cycle and these agricultural measures than do renters or sharecroppers, as was hypothesized above.

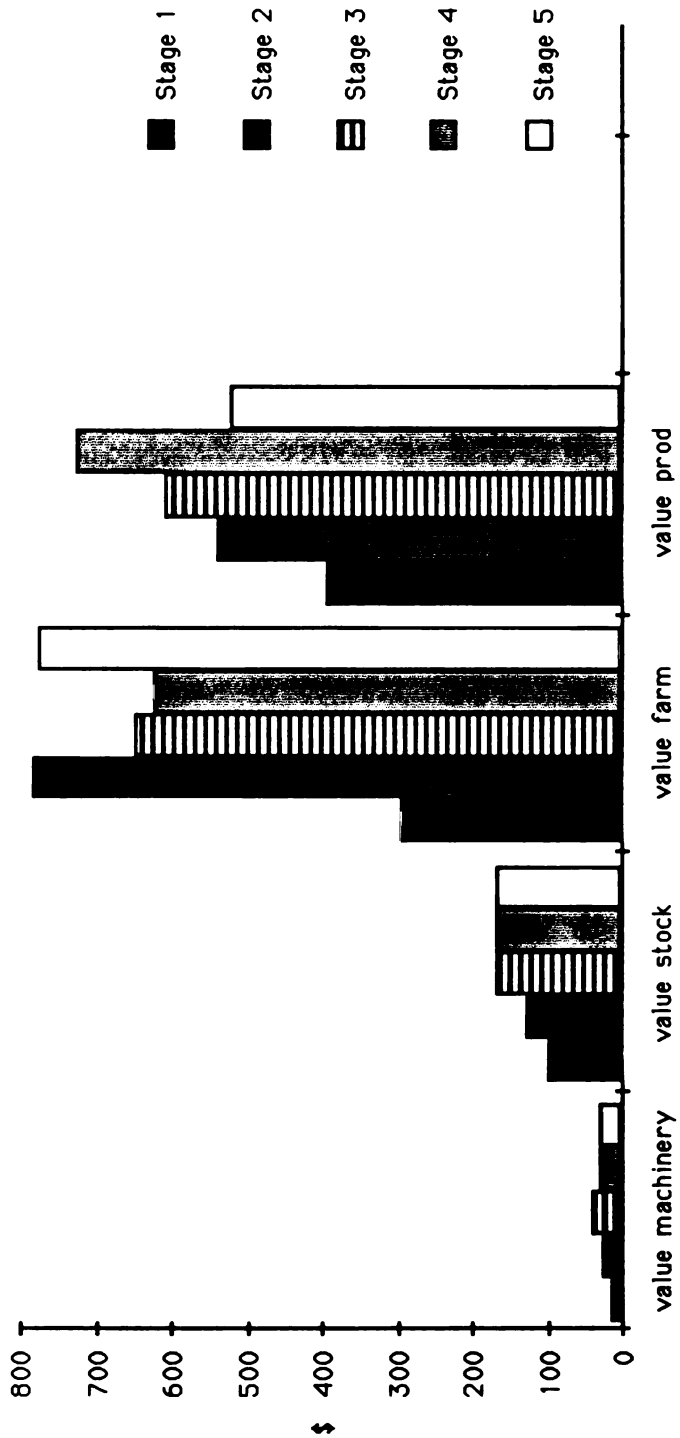


Figure 5.1. Agricultural measures by household life cycle, 1880, blacks.

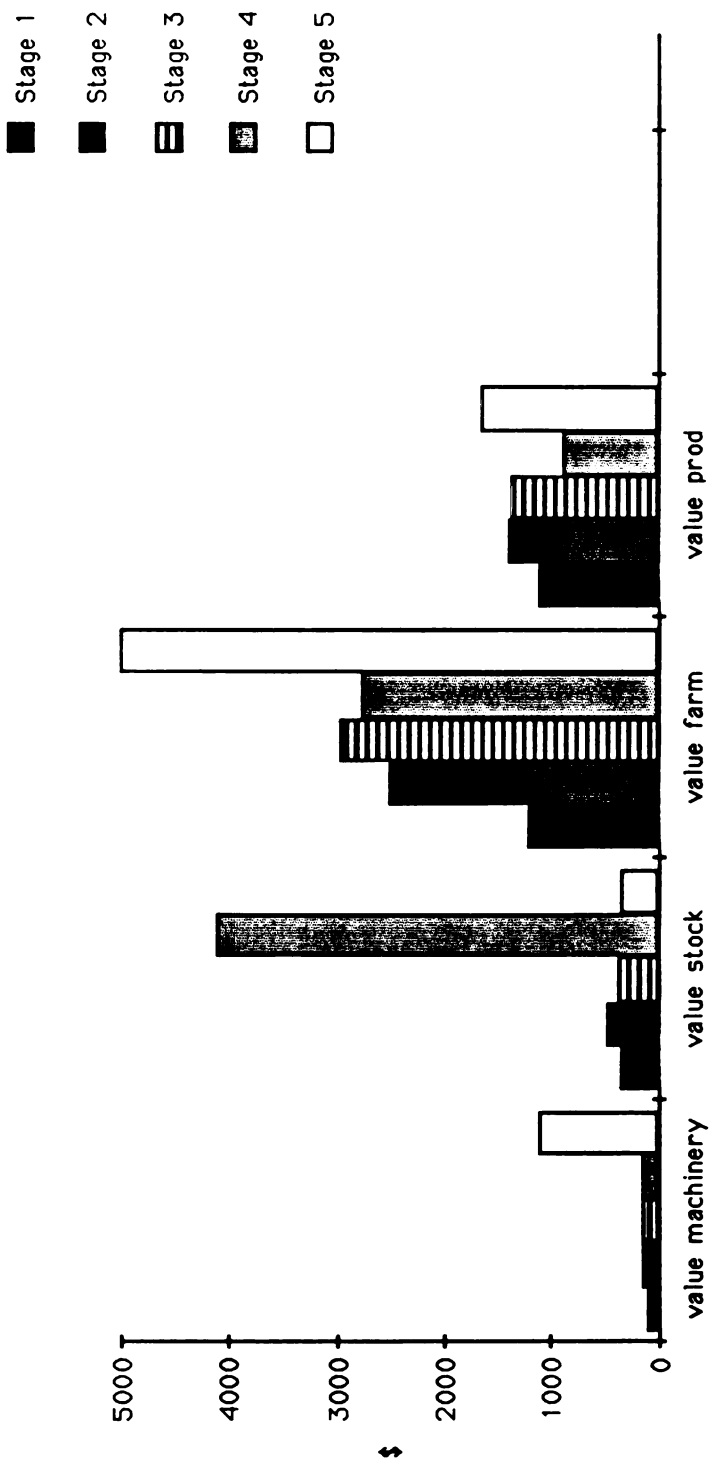


Figure 5.2. Agricultural measures by household life cycle, 1880, whites.

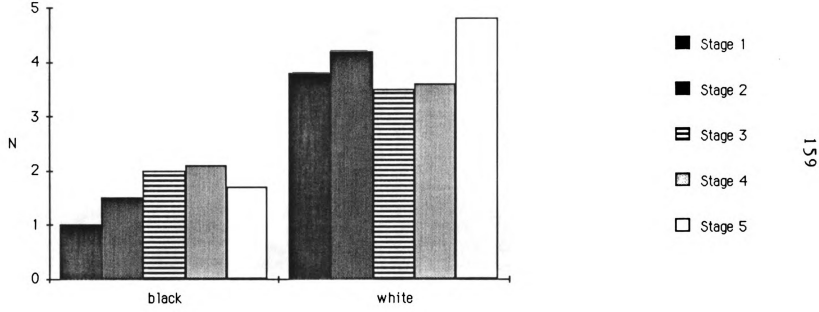


Figure 5.3. Traction by household life cycle, 1880.

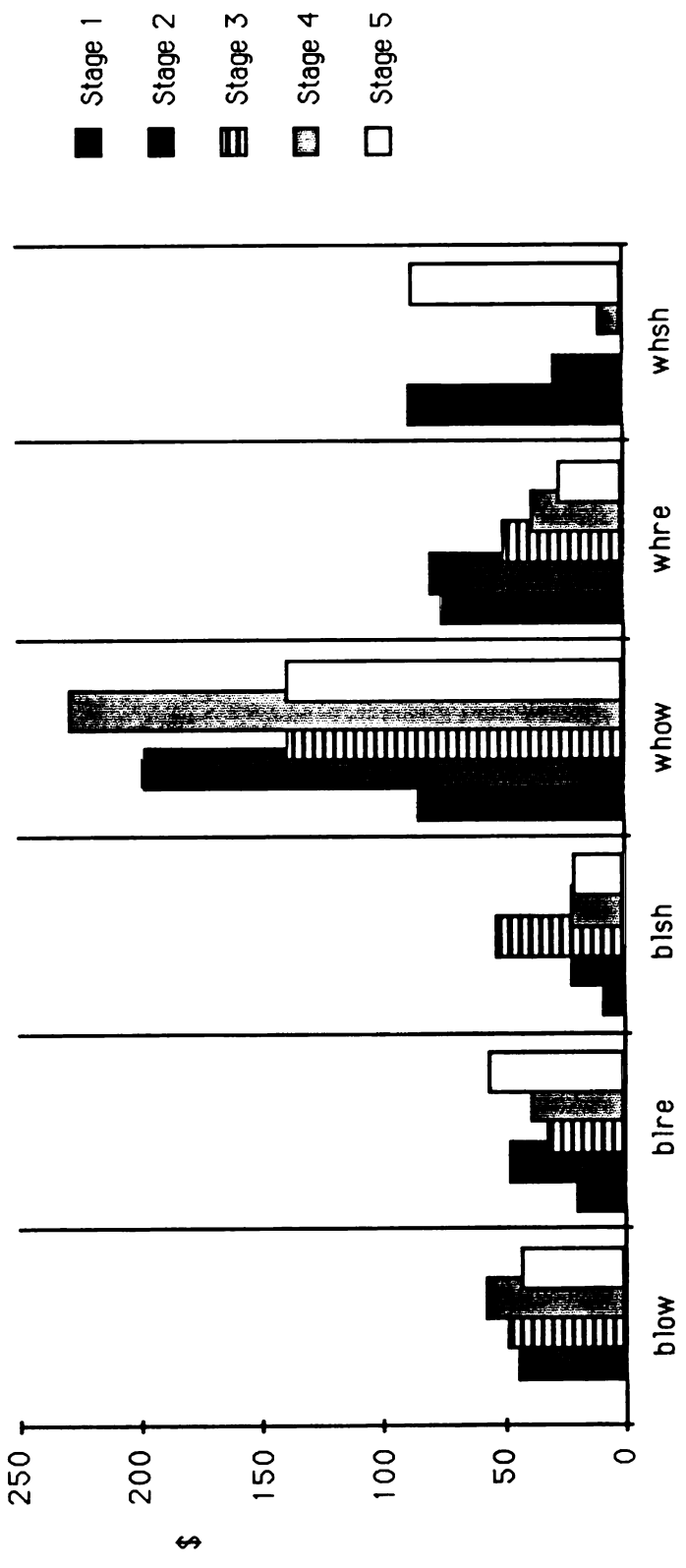


Figure 5.4 Value machinery by household life cycle.

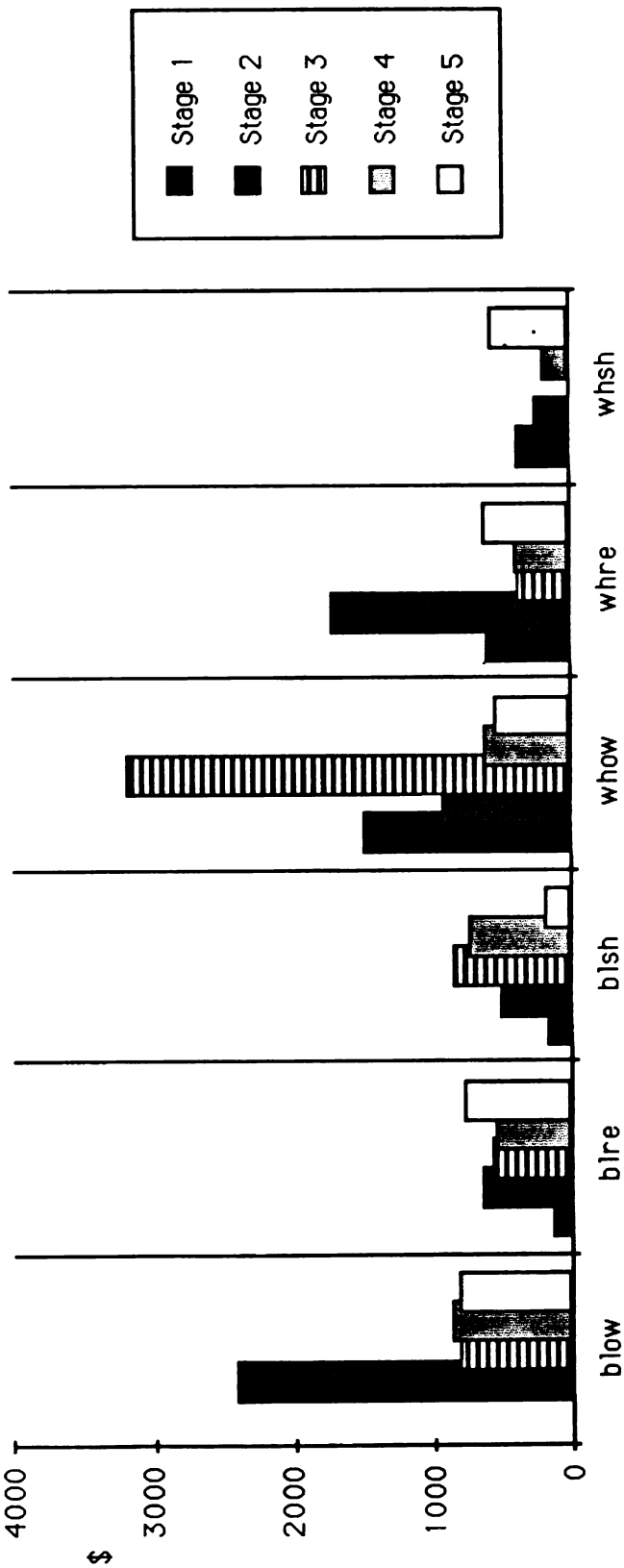


Figure 5.5. Value farm by household life cycle.

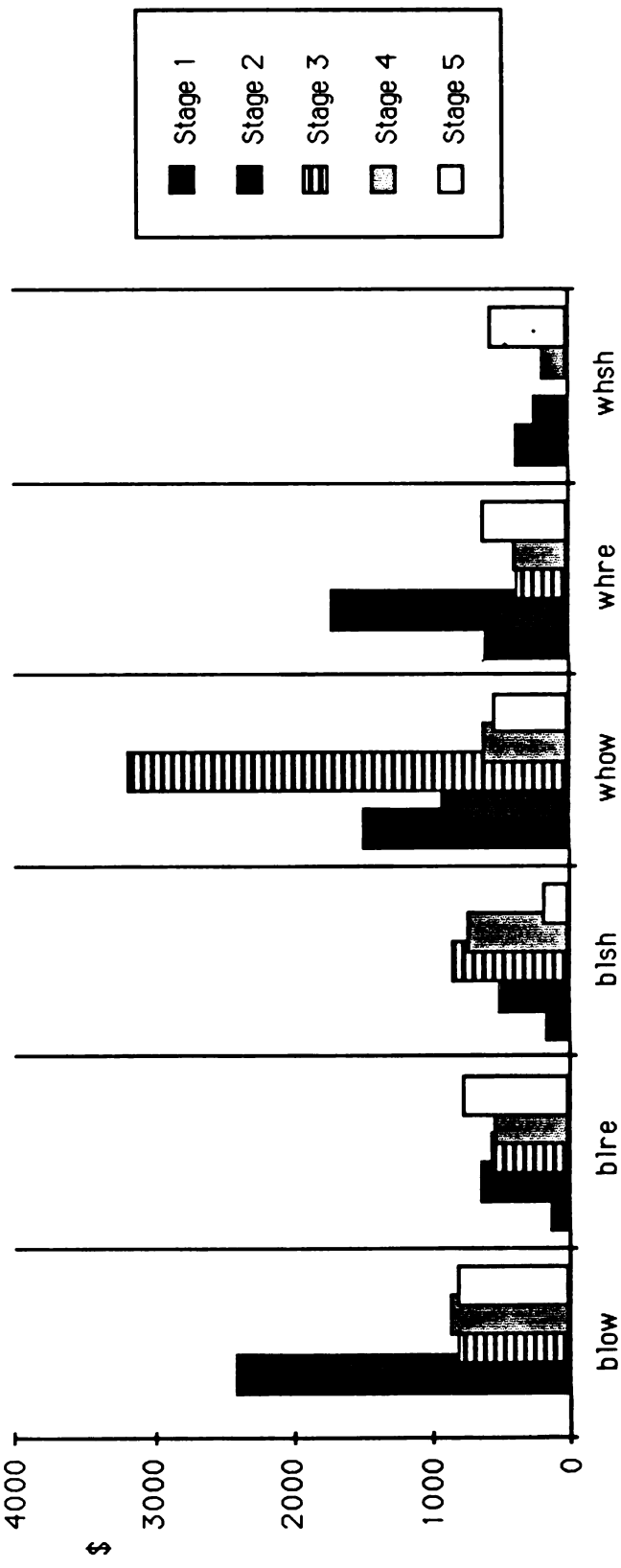


Figure 5.5. Value farm by household life cycle.

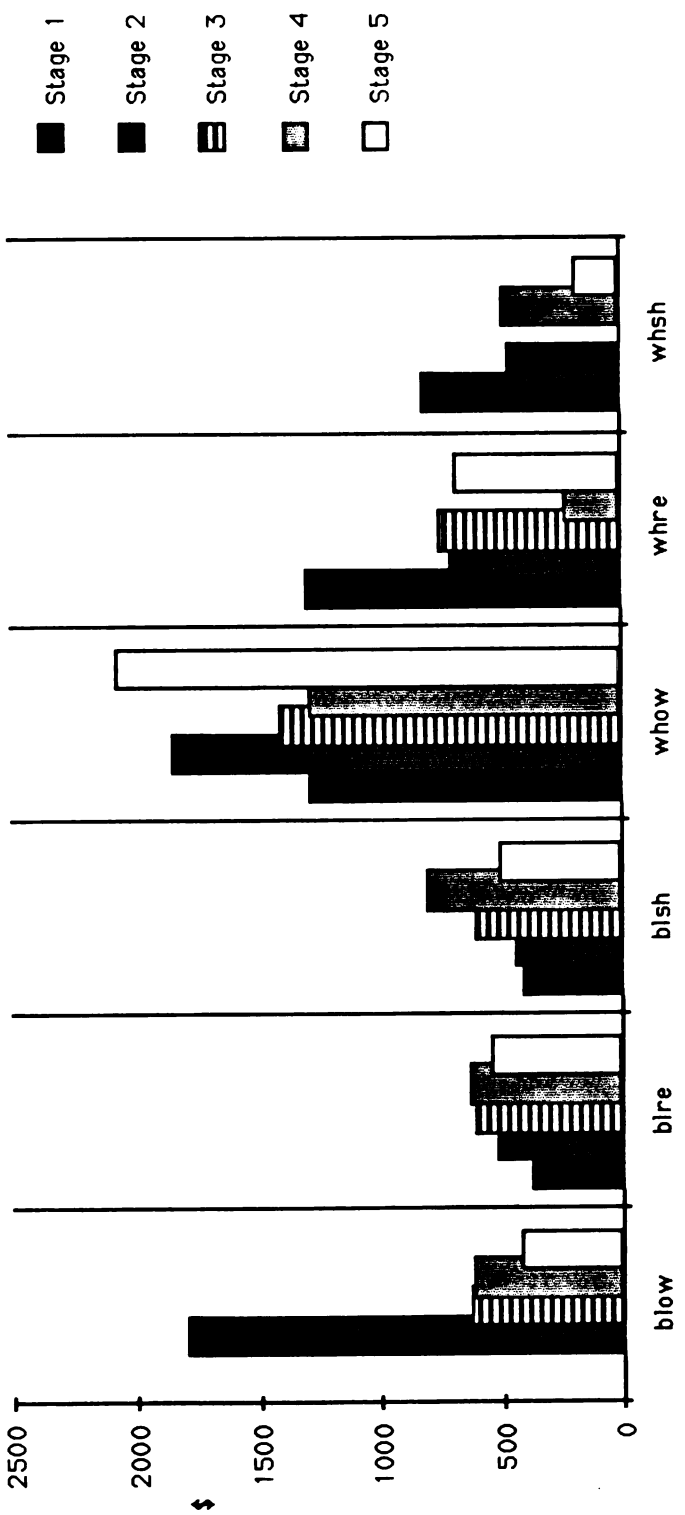


Figure 5.6 Value produced by household life cycle.

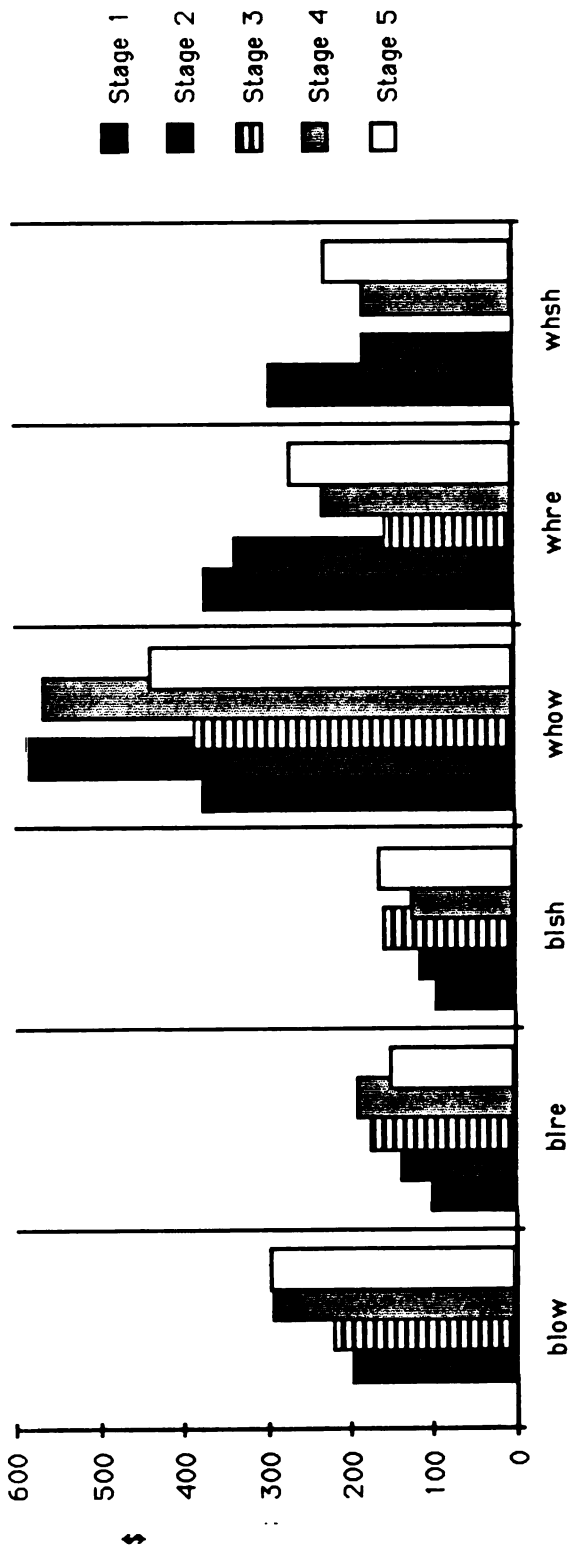


Figure 5.7. Value livestock by household life cycle.

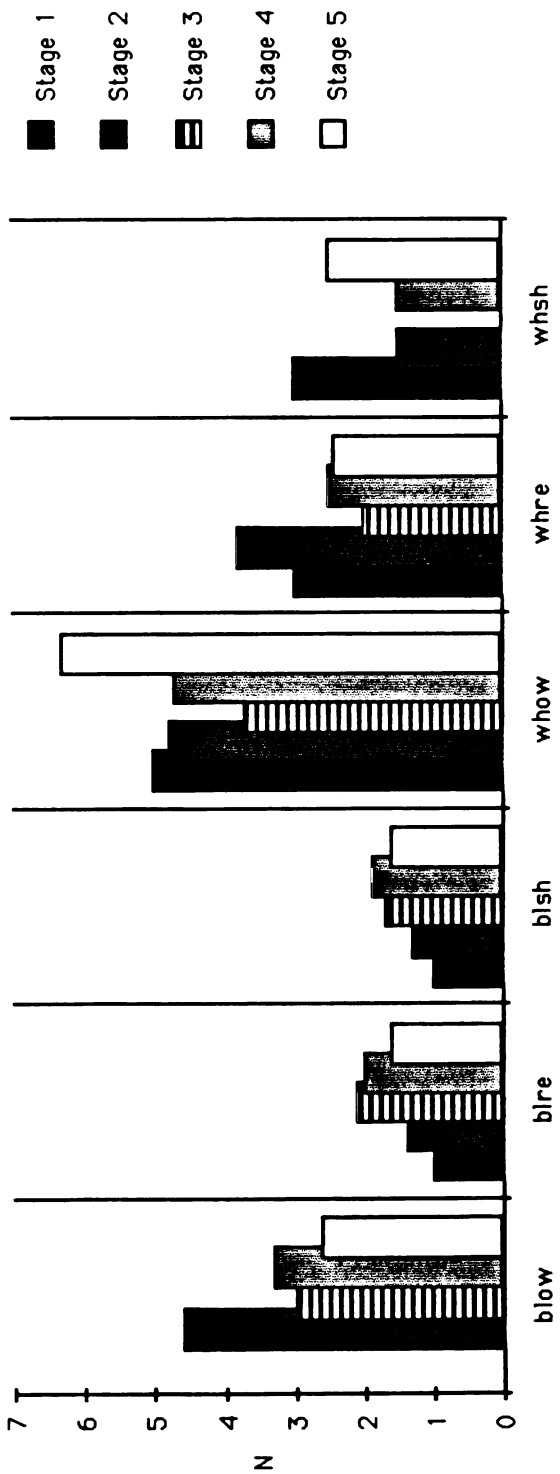


Figure 5.8. Traction by household life cycle and tenure.

One final measure which is presented by household life cycle is perhaps the most basic one. This is ownership itself, shown in Table 5.5 and Figure 5.9. The percentage of households that owned their farm was very low in the 1880 black sample, but does show a correspondence with the household life cycle. The same is apparent for the white sample in 1880, although the peak was in Stage 3 instead of Stage 4 and the decline to Stage 4 was much more dramatic. The differences in the relative incidence of farm ownership by race were huge in 1880, and still obvious although reduced in 1910. For both blacks and whites in 1910, the relative incidence of ownership peaked in Stage 3, declined in Stage 4, and rose back to the Stage 3 level in Stage 5.

These effects are not just those of the age of head (which is sometimes used to estimate household life cycle). The relationship between age of head and ownership is shown in Table 5.6. While ownership becomes more frequent the older the head of the household, the pattern is not the same as that shown by household life cycle. For blacks, both in 1880 and 1910, there is a gradual and unbroken increase in the percent that own their farm by age of head. This suggest that while ownership does increase with age, household composition and its fluctuation over the household life cycle also exerts an effect, which is to slightly reduce ownership at those points where the number of household workers is reduced. For whites, the relationship between age of head and ownership is much more variable. As seen in Table 5.5, the differences between the racial groups is much reduced in 1910. The steady increase in ownership with age for the black sample, coupled with a relative decline in the 65+ group of the white sample, resulted in a level of farm ownership in the 65+ age group that was fairly similar for blacks and whites.

Table 5.5. Percentage that own farm, by household life cycle stage.

Stage	N 1880 black	1880 black % own	N 1880 white	1880 white % own	1880 all % own	N 1910 black	1910 black % own	N 1910 white	1910 white % own	1910 all % own
1	21	0	5	40	8	74	5	10	10	6
2	167	5	38	82	16	214	6	36	36	10
3	77	5	13	92	18	61	18	14	57	25
4	45	9	14	57	20	48	14	14	50	22
5	68	7	17	58	18	151	18	21	57	23

Table 5.6 Tenure by age of household head, 1880 and 1910.

Age Head		1880 N	1880 percentage that rent	1880 percentage that own	1910 N	1910 percentage that rent	1910 percentage that own
15 to 24	black	84	100	0	70	98	2
	white	28	40	60	4	50	50
25 to 34	black	268	96	4	156	94	6
	white	59	54	46	20	70	30
35 to 44	black	178	93	7	122	87	13
	white	33	19	81	22	45	55
45 to 64	black	467	93	7	152	84	16
	white	42	32	65	41	39	61
65+	black	42	91	9	49	75	25
	white	5	17	83	3	67	33

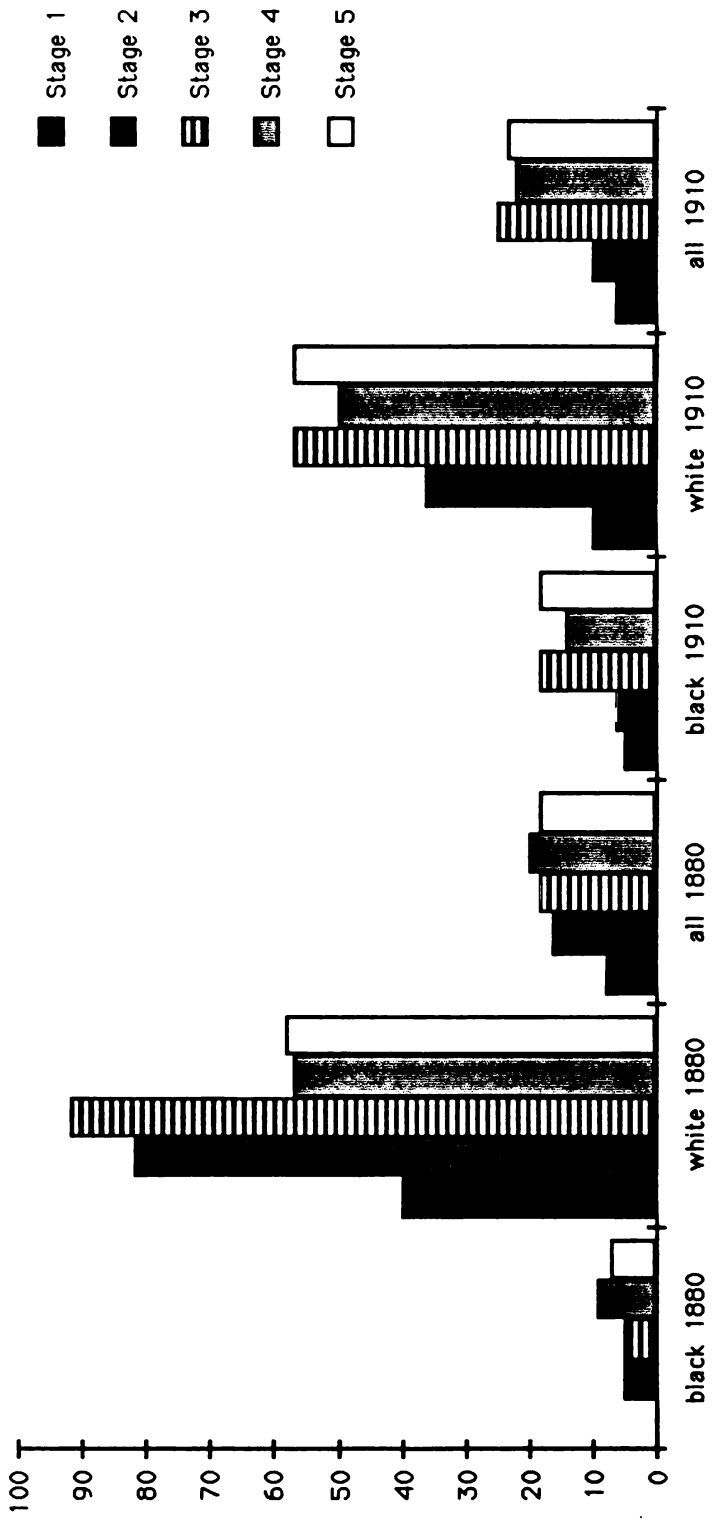


Figure 5.9. Percentage that own farm, by household life cycle.

Other Relationships Between Production and Household Composition

The above discussion suggests that household life cycle and household composition bear some relationship to agricultural wealth and production. To further explore this relationship, simple regression analysis was conducted, utilizing the basic file of 1880 agricultural census data, organized by households. Because of the high probability of interdependence between these variables, no attempt was made to conduct multiple regression. Rather, the focus of the analysis was to compare the relative importance of each dependent variable in a simple regression equation. Because the preceding analysis had shown that there were often extreme differences in agricultural wealth and production by tenure and racial grouping, this analysis was conducted separately for each of the six racial and tenure groups. In this way, the effects of the demographic or agricultural wealth variables could be separated from effects of race and tenure. Comparison of the correlation coefficients is possible in Table 5.7.

Four dependent variables were chosen. The three main dependent variables were the number of acres cultivated, value produced, and value produced per some unit. Several different units were used to construct this value produced per unit measure. These include the number of workers, the number of consumers, and the number of acres, yielding, respectively, value produced per worker, value produced per consumer, and value produced per acre. A fourth dependent variable was the bushels of food produced per consumer.

A series of independent variables were chosen. Each was entered separately into a simple linear regression equation. The independent variables chosen were those which had shown variation by racial and tenure groups or household life cycle stage, and which should, theoretically, have a major affect on agricultural production. They include the

demographic variables of the number of consumers, the number of workers, and the dependency ratio. Agricultural variables include the inputs of machinery, and traction, measured simply by the absolute number of animals, as traction per worker, and as traction per acre.

Before discussing the results of this analysis, a caveat should be mentioned. The regression analysis assumes a linear relationship between the independent and dependent variables. That is, it assumes increases or decreases of equal proportion in each variable. To the extent that the relationship between the two variables is not linear, for example, that an increase in 3 units of the dependent variable does not cause an increase of 3 units but of only 2 or 1 unit in the dependent variable, the resulting correlation coefficient will be lowered. In dealing with agricultural production, where there are limits to yields, relationships may be always be linear. Thus it is suggested that the expectations for the level of correlation should not be too high and that correlation coefficients of modest proportions should not be rejected outright.

Initially, it should also be pointed out that there is a strong positive correlation between the number of workers and the number of consumers in a household. This is partly because as a person ages, both their working and consuming capacity increases (see index values used in the Appendix, discussed in Chapter 3). This strong positive relationship is shown in Column 1 of Table 5.7.

The relationship between the dependent variable number of acres cultivated and the demographic and agricultural independent variables is generally positive, as would be expected. The agricultural wealth variables (Columns 4 and 5) show a much stronger relationship than do the demographic variables (Columns 2 and 3), yielding higher r values and consistently achieving statistical significance. Except for the black owners, the

Table 5.7. Correlation coefficients, agricultural analysis, 1880.

Y=	W	acres cultivated				food bu/c	valueproduced			value produced per				
X=	c	w	c	value mach	traction	acres cult	value mach	c	w	W traction /w	W dratio	C dratio	acre dratio	acre traction /acre
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Group N														
blow 22	.87*	-.22	.09	.41*	.96*	.62*	.34	.07	.17	.98*	-.17	-.17	.52*	.65*
blre 189	.89*	.31	.30*	.54*	.67*	.14	.52*	.20	.24*	.65*	-.33	-.33	-.01	.45*
blsh 192	.92*	.20*	.20*	.27*	.44*	.15*	.35*	.12	.15	.19*	-.41	-.41	-.03	.25*
whow 64	.94*	.13	.12	.81*	.87*	-.02	.84**	.17	.17	.90*	.10	-.10	.05	.66*
whre 26	.90*	.22	.41*	.91*	.74*	.03	.11	.07	.03	.75*	-.20*	-.20*	-.12	.52*
whsh 12	.92*	.31	.25	.53*	.46*	.51	.49	.12	.07	.75*	-.24*	-.24*	-.10	.77*

* indicates relationship is significant at the .05 level, based upon T statistic.

relationship between the demographic variables and number of acres cultivated is always positive.

It is important to compare the strengths of these relationships according to racial and tenure grouping. Notice that the relationship between traction and acres cultivated is strongest for owners, followed by renters, followed by sharecroppers, for both the black and white samples. This supports the general understanding that ownership, or at least access to, traction, was a crucial factor in agricultural production in the postbellum South. The relationship is probably weaker for renters and sharecroppers because they were more likely to use animals provided by the landlord, perhaps only intermittently, which might not be enumerated with that household, and because they probably also had access to lower numbers of animals per acre. The demographic variable number of workers is more strongly related to the number of acres cultivated for sharecroppers and renters, although the correlation coefficients are modest. However, this still suggests that the labor capacity of the household was an important component in determining farm size. The negative relationship between number of workers and acres cultivated for black owners may be because of the age component of land ownership. That is, owners in general were an older group, or land ownership was more common among older household heads, and more of these households would have been at a later household stage, when the number of workers had already peaked and was declining. The same interpretation is suggested for the white owning sample, but the dampening effect is less strong here (the relationship remains positive) because white farmers generally did not have to wait as long as black farmers to own land.

The second dependent variable, value produced, again shows a stronger relationship between agricultural wealth, here measured by value of machinery, than the demographic variables. But again all relationships between value produced and the

demographic variables are in the direction expected. It is suggested that value produced per some unit is a more useful measure. The relationship between value produced per worker and the agricultural wealth variable, traction per worker (Column 10) and one demographic variable, the dependency ratio (Column 11), can be compared. Traction per worker shows a positive effect, which is again strongest for owners. The same holds true when acres and not workers is used as the unit of measure (Column 14), except that white sharecroppers show a stronger positive relationship than any other group.

The dependency ratio measures the number of consumers per worker, and is generally highest during the middle life cycle stages when the household contains more young children (see Chapter 3). This variable consistently shows a negative relationship to the value produced per worker (Column 11). This relationship is strongest for sharecroppers, followed by renters, followed by owners. When the dependent variable is value produced per acre, not worker, but the independent variable is still the dependency ratio, a similar ordering is found (Column 13). Owners now show a positive relationship between value produced per acre and the dependency ratio. Renters and sharecroppers still show a negative relationship, but it is much weaker. There is no difference in the relationship between value produced per worker and the dependency ratio (Column 11) and the relationship between value produced per consumer and the dependency ratio (Column 12). This is not surprising given the high correlation between workers and consumers (Column 1).

The final dependent variable to be discussed is the number of bushels of food produced per consumer. This variable was discussed above, in relation to agricultural crop mixes (Table 5.2, Column 2), where it was shown that owners produced between two and three times the bushels of food per consumer than sharecroppers, with renters showing an intermediate level of food production. It was also shown that sharecroppers had the

lowest percentage of their cultivated land in food crops. One interpretation of these two patterns is that the higher production of food per consumer for owners was made possible by their larger acreage. That is, it was hypothesized that all households had to produce a certain level of cotton, and that production of food crops was then dependent on access to additional land. Thus the independent variable chosen for the analysis was acres cultivated. This is shown in Column 6 of Table 5.7. The results are quite mixed. The interpretation that the number of acres strongly influenced the production of food per consumer is supported only for the white sharecroppers. While the relationship is generally positive for other groups, it is weak. A negative relationship is indicated for white owners. This may be because some of the very largest white owner farms were more commercially oriented, and produced a relatively low level of food.

The issue of the amount of food the household produced can also be approached with another type of information from Vinton, which is chattel deeds. The crop lien system used to provide credit and furnish agricultural producers was discussed in Chapter 2, generally and at Vinton. The chattel deeds which secured the mortgage on the crop were also discussed in Chapter 2. These deeds do not provide an accounting of each household at the Vinton store, but they do give some indication of the level of purchases each household had already made and was expected to make over the year. All chattel deeds to the Vinton store for the year 1879 were matched to the same household's entry in the 1880 agricultural census and household databases. Thirty-two households were matched, but the analysis was restricted to the 28 households that sharecropped. The 2 owners and 2 renters presented too small a sample for separate analysis, and they were not included with the sharecroppers because of the differences demonstrated above between the tenure groups.

The information provided by the chattel deeds was the amount of goods which the Vinton store agreed to advance to that household during the upcoming year. In most cases this was listed in two steps, the value of goods already provided as of that day, and the additional value that would be provided over the rest of the season. It is presumed that the limit of value set by W. E. Trotter was based upon his assessment of each household's productive capability, general credit worthiness, and past history of charges at the store. In several instances the deed indicated that the first entry was not for goods just provided but a previous balance from the past year, in which case it did indicate a real level of charges.

It was hypothesized that households which normally produced a lower proportion of food would have a tendency to use buy food from the store, and thus have higher initial charges and expectations of more charges. The correlation between the total amount to be purchased that year and the number of bushels of food produced per consumer was in the expected direction although weak, at -.207. The relationship between store charges and several dietary staples were also investigated. These variables were the number of swine on the farm, which yielded a correlation coefficient of -.266, and the total value of all livestock, which yielded a coefficient of -.286. These results suggest that the level of purchasing at the store was moderately associated with the level at which food was grown or raised on the farm.

The above examination is tentalizing but difficult to interpret because the meaning of the value of goods purchased, or allowed to be purchased, in these deeds is unclear. Much better information on the Vinton store is available from the Watson account ledger of 1911-1912. This ledger and the general nature of its accounts was described in Chapter 2. To briefly summarize, the ledger gives partial to complete store accounts for about twenty individuals who were in some way connected with the Henry D. Watson family or Vinton store. Some are Watson family members, or hired household help, but most are tenant

farmers that rented (standing rent, set amount) on the Watson land. They received most of their goods from the Vinton store, which the Watsons now owned and operated. At the end of the year they turned their cotton over to the store, and its value was subtracted from their bill (with interest and other charges, see Chapter 2).

The accounts are itemized and list both the nature of each charge or credit, the amount, and the date. A total of 555 entries charges were analyzed from these accounts. Thirty-one percent of these were agriculturally related, and 45 percent were food-related. The other 24 percent were a mixture of cash, clothes, and miscellaneous expenses like a doctor's bill.

Table 5.8 summarizes entries for 11 black renting households. These eleven households were chosen because they all had complete accounts and could be matched in the 1910 population and household files. The first section of Table 5.8 looks at charges and credits. There was a high level of consistency in the amount each household charged or the amount it was credited, as expressed in the fairly low coefficients of variability. The average balance at the end of the year was $-163.00. Only one household out of the sample of 11 broke even; they ended the year with a balance of $94. The second section of the table looks at the most common types of charges. The highest single items were mules and rent. The average amount spent on food was $49, with meat the single most expensive item. The average amount spent on agricultural items, was slightly higher at $69. The agricultural category was defined as any agricultural input, and thus included things like seed, agricultural tools, and their repair and maintenance. If mules is included with these other agricultural inputs, the average amount spent on agriculture rises significantly, to $125. Corn and oats and hay are also major items related to agriculture. It is assumed that the corn was largely for feed, as meal (undoubtedly corn meal) is listed separately. Another very significant item was cash advanced by the store, which suggests that these

Table 5.8. Summary of expenses and credits from Watson Ledger (1911).

(all figures in $ value except for coefficient of variation and percentages)

	Mean	Minimum	Maximum	Coefficient of Variability*
SUMMARY OF ENTRIES				
all charges	501	209	639	.26
all credits	338	204	462	.21
cotton credit	322	204	462	.19
balance	-163	-323	94	.77
MOST COMMON CHARGES				
corn/oats	27	0	59	.72
hay	7	0	22	1.03
seed	7	0	19	1.18
meat	27	2	42	.43
molasses	3	0	6.5	.84
flour	5	.3	8	.38
meal	13	0	24	.53
clothes	10	0	52	1.55
cash	59	15	120	.57
all food together	49	5	67	.41
all agricultural	69	30	148	.5
all ag, + mule	125	30	206	.53
interest	64	25	85	.31
rent	112	60	135	.18
PERCENTAGE SPENT ON				
food	10	1.2	20.4	.51
agriculture (+mule)	25	08	46	.52
DEMOGRAPHIC MEASURES				
age head	44	25	70	.3
persons in hh	4.4	2	9	.18
dratio	1.03	.87	1.63	.22
credits/worker	134	87	210	.26
credits/consumer	136	68	201	.33
charges/consumer	200	87	340	.39
cotton/worker	128	87	167	.23
food/consumer	19	3	37	.52
rent/worker	45	23	60	.31

*coefficient of variablility calculated as standard deviation/mean.

persons were also patronizing other stores, probably in West Point or Aberdeen. Clothes and other miscellaneous items were less common, and much more variable (see coefficient of variability). The percentage of total charges that was spent on either food or agriculture is listed in the third section of the table.

Several demographic measures are summarized in the last section of Table 5.8. The level of variation in the value of credits or charges was low when viewed in relation to number of consumers or workers. The amount of food charged per consumer is the most variable (highest coefficient of variability, at .52). No information is available on the amount of acres these households rented. It is likely that the level of rent reflected the size of the parcel, although land quality might have played a part. Rent per worker (last row in table) probably serves as a rough estimate of the acreage available per worker.

Purchases were made throughout the year. Most of the miscellaneous items, especially clothes, were more common in December, when the account was being settled. Purchases of agricultural tools were very common in the spring, as the planting cycle was getting underway. Table 5.9 presents a breakdown of the number of purchases of agricultural, food-related, and other items by month. Agricultural items here also included hay, corn, and oats. It can be seen that the number of purchases involving an agricultural item was fairly consistent throughout the year. Food purchases peaked in August, and were generally highest in late spring and summer, probably when the cotton crop was demanding a lot of attention but most gardens were not yet fully producing. Food items drop off entirely in the late fall and winter, when home produce would have still been abundant.

Because the data on each household's account could be combined with the person and household file, it was possible to look at relationships between the household's store

Table 5.9 Schedule of purchases from Vinton store, 1911-1912.

	AGRICULTURAL		FOOD-RELATED		OTHER	
Month	N	% of that month's purchases	N	% of that month's purchases	N	% of that month's purchases
January	19	61	6	19	6	19
February	14	35	19	47	7	17
March	16	32	22	44	12	24
April	29	40	34	47	10	14
May	18	23	41	53	18	23
June	20	29	38	54	12	17
July	17	27	32	51	14	22
August	16	29	35	62	5	9
September	8	20	20	51	11	28
October	3	23	1	7	9	69
November	3	27	0	0	8	73
December	12	37	0	0	20	63

Chi-Square computed on counts, significant at .01 level.

account, production of cotton, and household composition. No information on other crops is available, however, since most of these household did not sell produce to the store, and since the agricultural census has been destroyed (House of Representatives 1912, 1920). This analysis is similar to that discussed above using the 1880 agricultural census, with simple regression employed. The sample was 11 households from the ledger that were matched to the 1910 household file. Since these households were all black renters, there is no need to subdivide the sample by tenure. Correlation coefficents appear in Table 5.10.

The analysis of the 1880 agricultural census suggested a weak negative relationship between acres of land and bushels of food per consumer. Assuming that rent provides an estimation of acreage, we can look at this relationship in terms of the amount of food purchased. Row 22 in Table 5.10 shows a correlation coefficient of -.46 for these two variables. The demographic variable of dependency ratio (dratio) does not show much association with percent spent on food (row 20). The lack of any relationship between

Table 5.10. Correlation coefficients, Watson ledger (1911).

	Y	X	R
1	total charges	dratio	.39
2	total charges	number of consumers	.47
3	total charges	number of workers	.45
4	total charges	rent	-.85*
5	total charges per consumer	dratio	-.51
6	total credits	rent	-.72*
7	total credits	percent spent on agriculture	.004
8	total credits	dratio	-.27
9	total credits per worker	percent spent on agriculture	.55**
10	total credits per worker	dratio	-.32
11	cotton per worker	dratio	-.39
12	cotton per worker	percent spent on agriculture	.61*
13	balance owed (as positive number)	percent spent on food	.56**
14	balance owed	percent spent on agriculture	-.18
15	balance owed	credits per worker	-.34
16	balance owed	total credits	-.16
17	balance owed	total charges	.85*
18	balance owed	dratio	.27
19	balance owed	rent	.57
20	percent spent on food	dratio	-.03
21	percent spent on food	rent	-.46
22	percent spent on agriculture	dratio	-.45
23	percent spent on agriculture	rent	-.09

* significant at .05 level
** significant at .10 level

rent (as proxy for size of farm) and the percent spent on agriculture (row 23) is surprising. It may stem for the broadly defined nature of the agricultural category, which mixes different types of agricultural inputs. The negative relationship between dependency ratio and percent spent on agriculture (row 22) is interesting, and suggests that households in the middle stages, when the dependency ratio was highest, may have been less able to direct resources to agricultural production.

The remainder of the analysis is confined to summary measures from the ledger, such as charges, credits, and final balance, in an attempt to try to sort out what variables most strongly influenced the household's overall success. There is a consistent and moderate positive relationship between total charges and number of people of different

categories in the household, as well as the dependency ratio (rows 1, 2, 3). The strong negative relationship between total charges and rent (row 4) is very interesting, and suggests that the larger farms (assuming rent is correlated with size) may have been more self-sufficient.

Total credits includes cotton credits, which is usually the only credit for most households. Again there is a strong negative relationship with rent. A more immediately obvious expectation is that as farm size increased, so would cotton production. However, this would logically follow from the negative relationship between charges and rent mentioned above, indicating a lower involvment of some farms with the store, which was manifest both in lower store charges and lower cotton turned in. There is also a moderate negative relationship between credits and the dependency ratio (row 8), suggesting that the productivity of the household is lowest in the second and third stages, when there are relatively more dependents (see Chapter 3). When total credits is viewed per worker, we see a similar relationship with dependency ratio (row 10). This relationship holds also when credits is replaced with cotton production (row 11). Percent spent on agriculture is positively related to credits per worker (row 9), as is cotton per worker (row 12).

The final tally of the household's year is seen in the balance owed. All but one of the households owed money at the end of the year. This balance is treated as a positive number in the analysis. Rent, as proxy for size of farm, is positively correlated with a debt at the end of the year (row 19), perhaps because of the high negative association between rent and total charges (row 4). Thus it may be of more interest to concentrate on the nature of the charges. It can be seen in rows 17 and 18 that total charges is more successful than total credits in explaining the variation in the overall balance, although the relationship of both variables is in the direction expected. The percent spent on food is positively associated with a debt at the end of the year (row 13), and percent spent on agriculture is

negatively associated (row 14). This also suggests that farms buying more food at the store were likely to have a higher debt. Although cotton remained the main crop for several more decades, soils in Clay County were by this time very worn. Also, markups on food prices were very costly (see Chapter 2). Above it was noted that there was a positive relationship between percent spent on food and the dependency ratio (row 23). The relationship between balance owed and dependency ratio is much smaller, but still positive (row 18).

As mentioned above, only one household broke even at the end of the year. This was the household headed by Pearce Mealor, composed of Pearce, age 55, and his wife, and four children. Two of these children were sons age 17 and 19, and two were daughters age 8 and 1. Interestingly, this was the only household of the 11 to include two teenage sons. The dependency ratio of this household was an even 1.00, compared to the mean for the sample of 1.03. In looking closer at the production and charges of this household, several things stand out. One is that they did not generate the positive balance at the end of the year by producing relatively more cotton. The Mealor household brought in $80 worth of cotton per household worker, compared to the sample mean of $128. Also, they purchased less food. Their value of food purchases per consumer was $15.75, compared to the sample mean of $19. The Mealor household also had very low miscellaneous charges, and no clothes. Of course this is not to say that these items were not purchased; but they were not purchased from the Vinton store. Their total charges of $309 was considerably less than the mean of $501, despite the large household. Their credits were $403 compared to the mean of $338.

The total credits of Pearce Mealor's household were unusual because they included $72.75 worth of labor for the Watson family early in the year. Entries for $15 of credit were entered on February 1, March 1, April 1, and May 1. On the 25th of May, there was

a credit for $12.75 with a note that Pearce stopped work. It is likely that he stopped working for the Watsons because by May to tend his own crop. However, even without this $72.50 the Mealor household would have had a positive balance of $21.50. This household also had one other very unusual entry in the Watson ledger- an entry for $43.80 received on 80 acres of land (see Chapter 2). There also was no rent entry for this household, a big reason their charges had been so low. If one subtracts the $43.80 land payment an substitutes $112, the mean rent payment, their balance would still be positive, although much lower ($25.80).

The circumstances surrounding this purchase are not known. Whether this household was able to buy land because they were able to beat the odds and come out with a positive balance in previous years, as they had this year, or whether they were able to buy land because of some special relationship with the Watsons is not known. One other tenant in the sample also had a credit entry by working for the Watsons. This entry was for $21.50. However, this household still ended up owing $95 at the end of year settlement.

CHAPTER 6

CONCLUSIONS

The previous chapters presented the findings from the analysis of household composition, marriage, fertility, and agricultural production. This chapter integrates the highlights of these findings, especially as they relate to the theoretical perspectives outlined in Chapter 1. These perspectives include theories about proto-industrialization and semi-proletarianization, postbellum tenancy, and family limitation.

Marriage and the Household Unit

This study showed that marriage was a very common experience for adults in Vinton. In fact, all black adult women in Vinton had been married at least once, and only a very small proportion of other samples remained single. There were important differences between the black and white samples, especially in the higher incidence of serial marriage and widowhood for blacks. The result was that about one quarter of all black households included a spouse who had been previously married. The importance of marriage, and the formation of nuclear family households, was reinforced by the development of a household-based form of tenant farming.

The analysis of age at marriage showed dramatic differences between owners and renters. Renters married earlier than owners by 2.35 years for black women, 3.04 years for white women, 3.98 years for black men, and 2.13 years for white men. Similar findings were reported by Tolnay (1984). Tolnay's analysis, which utilized public use

samples of the 1900 census, differed from the present analysis in that land tenure was not known for each individual in the sample. Instead, Tolnay calculated singulate mean age of marriage for different regions, and compared regions with a high level of tenancy with regions having a low level of tenancy. He found that high tenancy areas showed a singulate mean age at marriage that was 2.47 years younger for men and 1.45 years younger for women, in comparison to low tenancy areas. He also found that the ages at marriage in the rural South at the time were younger by about one year than the urban South, and younger by about two years than the rural north and west.

Such a differential will likely be interpreted by other scholars as stemming from the rural nature of the South. I suggest that it may also be influenced by the organization of Southern agricultural production, in a manner similar to that experienced in the 19th and 19th centuries in areas undergoing proto-industrialization. This analogy is explored more deeply below.

Age at marriage has long been seen as one of the most important variables in the demography of the West. The pre-industrial Western demographic regime was characterized by a close correspondence between marriage and the availability of agricultural holdings, jobs, or other means of setting up and supporting a separate household. It resulted in late age at marriage and high levels of celibacy compared to most other parts of the world (Hajnal 1982). Since the 14th or 15th century, and possibly earlier, wages or grain prices were the most common variables to which Western marriage rates and age at marriage responded (Goldstone 1986; Wrigley and Schofield 1981). Until the late 18th to 19th centuries, a fairly slow growing economy and an overwhelmingly agricultural orientation restricted the number of supportable households. This began to change with proto-industrialization, which occurred in various areas of Europe from the 16th to 19th century, and involved a growth in rural industry, often organized as a putting

out system controlled by merchant capital. Proto-industrialization eased restrictions on household formation. This resulted in an earlier age at marriage, which increased the years a woman was most at risk of conception, shortened the time between generations, and stimulated population growth. Much of the population growth was absorbed by the expanding economy (Archetti 1984; Braun 1978; Kriedte 1981; Levine 1977, 1984; Medick 1976; Mendels 1972; Tilly 1978, 1984). For example, Palmer (1984) suggests that the dramatic increases in 19th century European commodity production were encouraged by the growth of labor as much as by increases in per capita output. The fact that age at marriage dropped in areas where rural industry was strongest had been noted in studies since the late 1950s and 1960s (Braun 1960, 1966; Chambers 1957; Klima 1965 cited from Tilly 1984, as well as Levine 1977), but these observations have been hard to interpret in light of the dominance of demographic transition theory.

The above description is admittedly oversimplified. The growth of rural industry did not naturally evolve in the countryside, nor, as Mendels points out, was it always stable. It involved important departures from many long standing traditions like customary rights of craftsmen, artisan's guilds, access to common lands, gleaning of agricultural waste lands, outside service for adolescents, scheduling of traditional holidays, and others (Blum 1978; Brenner 1976; Kriedte 1983; Mendels 1972). It was encouraged by the growth of a world economic system and market, as well as rising home demand (Braudel 1981; Schiel 1984; Wallerstein 1974; 1980).

One of the most important aspects of these changes was the articulation of a family economy, or what several authors have called the Domestic Mode of Production, with rural industry. This interaction, which will be discussed in more detail below, allowed for rapid capital accumulation by merchant capitalists, and helped finance the take-off of full industrialization.

Medick (1976) has most fully explored the relationship between the Domestic Mode of Production (the DMP) and the growth of rural industry. Drawing on Sahlins (1972) and Chayanov (1966), Medick has argued that the proto-industrial economy was built around the household, as a self-regulating economic unit that pooled resources and oriented work toward meeting self-defined needs. The DMP household was not generally oriented toward accumulation or profit motives. Medick especially drew on Chayanov's concept of self-exploitation, in which the household would intensify labor production when the dependency ratio or other conditions demanded it, and relax production when needs were more easily met. It was this history of willingness to "self-exploit" that made households more easily manipulated by merchant capitalists, through increases in rents or prices charged for supplies, decreases in prices for finished goods, demands for work speed-ups, and so forth. In some cases merchants did not even have to supply enough returns to support the maintenance and reproduction of the labor force, since rural proto-industrialists often seemed willing to subsidized merchant capital by side production of a small garden and a few animals. Compared to previous situations in which a family might unable to support all children or make use of their labor, and in which many children from poorer families were sent to work as servants on larger estates, proto-industry increased the significance of the household as a productive unit and created additional opportunities for family support.

The importance of the household as a labor unit, its articulation within a large capitalist socio-economic system, and demographic ramifications, are a useful perspective not only for proto-industrialization in the West, but also in the contemporary world. Within the contemporary setting, these processes are often discussed under the rubric of semi-proletarianization. For example, Wallerstein, one of the leading proponents of this viewpoint, has described semi-proletarian households as permitting the wage-employment

of some of their members at wages below the proportionate cost of reproduction by pooling wage-income with subsistence agriculture, petty commodity production, and rental and transfer income (Wallerstein 1983:18-19) He, along with Smith and Evans (Smith, Evers, Wallerstein 1984:8), further describes households as "systems that are able to provide labor to capital precisely because they ensure the combination of income from wage labor with that from non-wage labor so as to form an adequate pool of resources guaranteeing the replenishment of labor power. Apparently non-capitalist relationships and processes are responsible for a substantial supply of the world's labor force and thus are at the very heart of capitalism."

The semi-proletarian or proto-industrial interpretive framework has not been applied to the postbellum South, although Tolnay (1984) has noted the importance of land tenure in postbellum demographic patterns. However, similarities between Southern tenant farming and proto-industrial production are striking. For example, in the rural weaving industry of the 17th and 18th century Europe, it was common for a merchant to supply all of the means of production, including the loom, and yarn and other supplies, to the working household. The weaving household basically provided labor and needed to pay loom rent and supply charges from the returns of their finished product. This is strikingly similar to the case of Southern tenant farming, where the tenant household often rented all of the means of production, and was paid out the returns from the crop.

On the macroeconomic level, Southern cotton production produced the raw materials for Northern and European industrial textile production, and remained a very important part of the U. S. economy until about 1930, when other fibers increased in popularity and other countries began to produce more cotton. For example, in 1884, cotton accounted for 247 million dollars out to a total United States export value of 832 million dollars. Some scholars have suggested the southern economy and interaction with

Northern states during this period resembled that of a distinct and dependent colony (Hacker 1970; Palmer 1984; Woodward 1951). Even the economist Gavin Wright, who does not fully support the colonial interpretation, has stated that "the defining feature of this [the United States'] economy in the post-Civil War era was that the South constituted a separate regional labor market, outside the scope of national and international labor markets that were active and effective during the same era" (1986:7). He also noted (1986:10) that "southern resource allocation was primarily determined in relationship to the international economy."

This relationship can be seen in many statistics. After the Civil War, much Southern land was under state and federal ownership, through confiscation or because of owners' inability to pay taxes. Although some reconstruction programs intended to distribute such land to ex-slaves, who could not afford to buy it, these programs largely disolved and the lands were sold, often to Northern industrial interests. Over 5 million acres were sold between 1877 and 1888. In Mississippi, 889,359 acres were sold to 32 Northern buyers, while only 134,270 acres were sold to 11 Southern buyers. Many European, especially English, buyers also bought Southern lands during this period. In 1881 in Mississippi, English buyers bought 1,300,000 acres of delta land. Agriculture became more oriented toward cotton production, with subsequent declines in subsistence crops and increased reliance on imported food and other basics, and tenancy increased (see Chapter 2).

Industry also showed the signs of a colonial-like relationship. Many of the more important railroads, such as the Louisville and Nashville or the Southern, were owned or controlled by New York or London companies. These companies drew profits out of the area and protected non-Southern industry by imposing unfavorable freight-rate differentials upon Southern lines (Woodward 1951:117, 126, 292; Wright 1986.). Industries were low

and the Southern cotton was usually exported as a raw material. For example, in 1882, Southern mills only consumed 942,144 bales out of the 6,949,756 produced (Chew 1884). Even the cotton mill industries which increased in the South during this period were often controlled by out-of state corporations and specialized in the manufacture of yarn and rough cloth. Final processing, in which most value was added and from which higher wages and other returns were generated, was conducted in Northern or European factories (Hammond 1987; Woodward 1951). In 1910, 62 percent of Southern wage workers worked in the lower paying extractive industries, compared to 10.7 percent of New England wage workers, or 14.2 percent of Mid-Atlantic wage workers (Woodward 1951:308-310).

The result was a situation in which accumulation of wealth was directed away from the Southern states themselves. By 1920, only 42 percent of the non-agricultural wealth of Mississippi was owned by Mississippi companies (Wright 1986:63). Also, the level of individual wealth was comparatively low. Per capita wealth in Mississippi in 1880 was $286, compared to a U.S. average of $870. The lowest per capita wealth of all non-Southern states was $577 for Kansas, higher than any Southern state (Woodward 1951:111).\\

The present study provides data on accumulation on the local level by two Vinton merchants, W. E. Trotter, and to a lesser extent, Henry D. Watson. Although agricultural data was not available for 1910, so that changes in agriculture between 1880 and 1910 are not available, the study did demonstrate that tenancy increased during this time, and that tenants were generally less able to devote acreage to foodstuff. They were thus less able to provide for their own needs, and more reliant on the commission merchant , who in turn could demand more cotton production. That capital accumulation was quite high was demonstrated by Trotter's land holdings and the Dun and Co. financial reports. This accumulation was based upon the production of cotton by individual households who

received a low rate of return for their labor and supplemented these returns with added contributions from subsistence-oriented farming. However, the local merchant W. E. Trotter did not display evidence of extreme wealth. The Vinton store did contain a piano, somewhat of a luxury item (see Chapter 2), and Trotter's house was undoubtedly one of the best furnished in the area. However, Trotter's house appears to have been a relatively modest structure (McClurken and Anderson 1981). Chapter 2 demonstrated that his financial empire was easily destroyed, and eventually taken over by a regional wholesaler. It is almost certain that a large percentage of the wealth realized at the Vinton store was channeled to the wholesalers and others from whom Trotter obtained goods and credit.

The younger age at marriage for Vinton tenant farmers is similar to the younger age at marriage for proto-industrialists. Because the present study does not just look at age at marriage, but also at household composition, it is possible to further explore the household and its insertion within this form of production. The analysis of household composition showed the overwhelming dominance of the nuclear family household, both in 1880 and 1910. However, between 1880 and 1910 the nuclear family became even more dominant, with a resulting decrease in the number of non-nuclear family members within Vinton households. Historical research has not indicated an obvious reason for this trend. However, the discussion of agricultural production in the postbellum period presented in Chapter 2 suggested that this period saw the gradual establishment of household-based tenant farming. This was discussed in terms of current understandings of Southern tenant farming, and by changes seen within the project area. For example, there were probably many persons like Sam Smith discussed above, who did not farm as part of a nuclear family, in 1880. Certainly there were many more persons living with a family other than their own compared to the 1910 data set. By 1910, the household-based form of farming was more common. This may have created additional incentives and pressures for remaining with a family of orientation or procreation.

Thus an interpretation based upon the similarity to the proto-industrial and semi-proletarian household helps explain a trend which is otherwise difficult to explain. One alternative explanation would be that black households became more nuclear over time because of increased assimilation of Euro-Americans kinship. However, there are problems with this argument. On the one hand, previous historical studies have documented the prominance of the nuclear family household during and immediately after slavery (Gutman 1976). Also, the trend of increased nucleation was observed for white as well as black households in the present study. Several studies of nineteenth century Southern farmers have documented that white farmers were, like blacks, increasingly drawn into household-based tenant farming during the postbellum period (Hahn 1983; Wiener 1978). The present study showed that from 1880 to 1910, tenancy also increased among white Vinton farmers. It is suggested that the household became increasingly important as a unit of production in the white population as well as the black population, which encouraged household nucleation.

It is also interesting to note that the category of servants decreased to zero in 1910. Although it was suggested that this could result from a peculiarity in the census enumerator's use of categories, the trend bears a striking similarity to the decrease in service among proto-industrial families, who increasingly needed the labor of children and could support them more easily than before the spread of rural industry. All ethnographic accounts of the postbellum rural South suggest that children were important sources of labor in cotton production (Davis et al. 1942; Johnson 1934; Jones 1985; Lewis 1955; Powdermaker 1939; Rosengarten 1974; Tolnay 1986), as they are in most agricultural economies (Johnson 1984).

While the increasing centrality of the household as the unit of production encouraged individuals to remain in nuclear family households, the conditions of tenancy set modest standards, often nothing more than a landlord's promise of furnishing, for the formation of a new household. Landlords preferred to rent to families, not single individuals, which also encouraged marriage and new household formation. The analysis of individuals' position within households suggested that tenants did leave the parental household earlier than owners. This was supported by at least two patterns, in addition to the earlier age at marriage for tenants mentioned above. One is the higher incidence of people in their late teens and early twenties residing with parents in owning households. The second pattern is that more young renters than owners were heads of their own households. People who left their parents household as young adults did not necessarily have to form their own household. They could have attached themselves to another household as a servant, or worked for some other persons or household as a wage laborer. However, the higher incidence of young household heads among tenants, compared to owners, suggests that in the postbellum South, they often did form a new household. The analysis of household composition showed that the stem family household, which has been associated with the inheritance of property (Berkner 1972) was rare. It was most common for white owners however, supporting the interpretation that this household form was encouraged by property transmission.

Fertility

Most previous work on interrelationships between proto-industrialization and demographic processes has focused on age at marriage. Medick, Mendels, and others do not specifically rule out changes in fertility, although most authors give it little attention. If anything, they note that the need for labor, and the fact the household was its own labor unit, did not discourage high fertility. It would be interesting to ask whether abortion,

child abandonment, or other signs of unwanted fertility were lower among proto-industrialists than among similar populations lacking rural industry. Levine (1984) has also made the suggestion that changes in work routines could have disrupted breastfeeding patterns, leading to reduced lactational ammenorhea, and increased birth rates.

Despite suggestions that disincentives to high fertility decreased as the household became a tighter unit of labor, fertility during this period has generally been characterized as "natural," and not subject to deliberate manipulation, especially in regard to numbers of children born. The investigation of fertility undertaken in this study supports this interpretation, especially for the rural sample. Levels of fertility are relatively high but do not show the typical pattern of reduction at higher ages (and parities) that has been associated with the onset of family limitation. This is suggested by the moderate m values calculated, m being a relative measure of the amount of family limitation in comparison with a series of natural fertility populations. Higher m values indicate greater family limitation.

Results similar to those calculated in the present study have been obtained by Tolnay et al. (1982), who used the public use samples of the census to look at Southern white fertility. For example, they found m values for 1886-1889 of .971 urban, .576 rural non-farm, and .366 rural farm. These values compare to m values in the present study of .642 for urban owners, .35 for urban renters, .581 for rural owners, and .396 for rural renters. It should be noted that the West Point sample of the present study is probably less urban than Tolnay et al.'s urban sample, which would have included more households from major cities. This may partly explain the higher m values they obtained from their urban samples.

Tolnay (1987) subsequently conducted a similar analysis for another sample, which included blacks and whites, for 1905-1910. He found m values of .421 black rural non-farm, .531 white rural non-farm, .338 black rural farm, and .342 white rural farm. This suggests moderate limitation for the rural non-farm group, and very moderate (if any) limitation for the rural group. The white samples generally indicate greater limitation than the black samples. Tolnay notes that as predicted by the historical experiences of Europe, declines in fertility from 1910 to 1935 were strongest in the older ages. Earlier he had noted that declines in the 1880s were equally strong in all ages, which is not in keeping with the usual pattern of family limitation. Tolnay also points out that while m values suggest rural black fertility was natural, or nearly so, in 1910, fertility had already declined somewhat from previous levels (see also Chapters 1 and 4), and was on the verge of a more rapid decline. For example, despite a relatively low m value of .421, which suggests nearly natural fertility, Tolnay et al. found a low marital fertility rate of 4.760 for the rural non-farm population. The rural farm marital fertility rate was much higher, 7.425 (compared to the Vinton rate of 6.93, see Chapter 4). This suggests that factors besides family limitation were reducing fertility, especially in the non-farm population.

The study of marital status presented in Chapter 4, and the analysis of numbers of children born by different marital histories, suggests that a higher incidence of marital disruption may have slightly lowered the total fertility rate and the marital fertility rate for black women. The marital fertility rate is affected because a higher percentage of black married women probably have more complex marital histories, and more time in between unions, than white women (see Chapter 4). However, black women were more likely to be tenants, and it has been shown that tenants married slightly earlier. This could in part make up for later marital disruption. Also, the study of illegitimacy showed that childbearing was not as firmly embedded within marriage for the black sample. These factors combine to suggest that other forces must have also worked to reduce black fertility.

Subfecundity and sterility have been noted as important components of black fertility in the early twentieth century, and may have also been a factor in the late nineteenth century. Demographers studying Southern black populations are still divided over the level of subfecundity and sterility, and its relative contribution to fertility decline. The causes for subfecundity and sterility are also not fully understood, although venereal disease and general poor health, especially as associated with rickets and increased post-birth infectious complications, have been the most commonly cited problems (Cutright and Shorter 1979; Farley 1970; Wright and Pirie 1984). Some of the older writings about the black fertility decline have focused on the degree to which the black experience followed the white experience, or the extent to which it presented a unique case (Engerman 1978). The extent to which family limitation has been underestimated has also been an important issue (Masnick and McFalls 1976; McFalls and Masnick 1981).

Since Farley (1970), the study to most strongly suggest major differences between the black and white experience (despite many outward similarities) is Wright and Pirie's (1984) research on fertility in relation to the distribution of venereal disease. These authors concluded that 56 percent of the black fertility decline from the late nineteenth century to the 1940s was caused by subfecundity and sterility. Tolnay (1989) has suggested that this percentage is too high, and has recalculated the percentage to 28 percent. Even at 28 percent, this research suggests that subfecundity and sterility were important components of the black fertility decline. This factor could help explain the high percentage of childless women for the West Point sample (18.6 percent, see Chapter 4). By 1940, childlessness among black Southern women age 45-49 was 21.8 percent (Tolnay 1983). Also, it was shown in Chapter 4 that urban children had a lower survival rate than rural children. Mortality was not investigated in more detail, so that it is not possible to speak of age-specific mortality patterns. However, it be might useful in future work to consider the

extent to which conditions that encouraged subfecundity or sterility also encouraged higher infant and early childhood mortality in the urban setting, perhaps through low birth weights or generally weakened infants.

It is possible that the high percentage of childless women in West Point, and much lower percentage in Vinton (5.9) (Chapter 4), may be exaggerated by the migration of childless women from the rural to the urban setting. This is not an unlikely situation considering that household-based tenant farming, in which children were an important component, increasingly dominated the rural area. Not only was farming increasingly organized by households (Chapter 2), but the tendency for non-nuclear family members to be added into nuclear family households decreased from 1880 to 1910 (Chapter 3). Residence in other nuclear family households may have become a less common alternative for childless black women, with more moving into town where employment opportunities were good.

To the extent that subfecundity affected black women of all ages but had cumulative effects that were stronger at later ages, it may have increased the intervals between births at later ages. This would give the same effect as family limitation, and could account for some portion of the high m values calculated for black women, especially urban black women, in this and other studies. For example, the highest m value of the 8 subsamples of this study, .992, was among black urban owners. Of course, even if we reduce this m value, say by 28 percent in accordance with Tolnay's estimate that 28 percent of black fertility decline was caused by subfecundity and sterility, we have an m value of .714. This is still high enough to suggest some family limitation. Also, owners showed higher m values than renters in not just the black urban, but also the white urban and white rural samples, which suggests that there was some real difference in the level of family limitation according to tenure. The failure of owners to show a higher m value than renters for the

rural black sample is not especially troublesome since both owners and renters in this sample showed an m value barely over zero, indicating natural fertility (Table 4.8).

We then ask why owners showed a higher level of family limitation than renters. First, major fertility differences between owners and renters should be restated (see Chapter 4). These findings were that rural white women had the highest fertility, followed by rural black women, urban black women, and urban white women. In seven out of eight possible comparisons by tenure, renters had higher fertility than owners (Table 4.9). This finding would be expected if they had a lower level of family limitation. The differences between owners and renters was generally more dramatic in the rural samples. This also might be expected when considering the increased importance of tenure in the rural setting. Whereas in the urban setting, tenure gives information on the ability to consume one of the most highly prized commodities, housing, and to some extent may serve as a proxy for overall wealth, it is not as intimately connected with production and livelihood as in the rural setting.

Historical studies of the relationship between land and fertility in the United States have usually focused on cost of land, population density, acreage, and other factors within an owning population. These studies have often assumed the possibility of ownership for most households and have not focused on tenant farmers (Easterlin et al. 1978; Forster and Tucker 1972; Leet 1975; Yasuba 1962). This is partly because tenancy was much less important in other areas and in other times, compared to the postbellum South. Also, many of these early studies suffered from poor data and methodology (Hareven and Vinovskis 1978 provide a critique). Easterlin et al. (1978), one of the more sophisticated studies, found little relationship between tenancy and fertility. Their major conclusion was that land scarcity and high land prices led to the reduction in fertility, both by an increase in age at

marriage and by efforts to restrict fertility within marriage, because families wanted to settle their children on nearby land.

In the present study, the inability of a large segment of the population to own land evolved into a system of production and reproduction that did just the opposite, that encouraged marriage and thus increased fertility. Theories which try to explain a universal relationship between land and fertility are not likely to succeed, because of varying meanings and effects of land ownership in different settings. This point is illustrated in the contemporary world by Johnson's (1984) summary of varying land and fertility relationships.

Several historical studies of the United States have been able to analyze fertility by land tenure. These include Katz and Stern's (1981) and Stern's (1983) finding of higher child-women ratios for farm renters in Erie County, New York in 1855 and 1900. Bash (1955, 1963) reported a similar finding several decades ago, although except for the work of Stern and Katz and Stern, is rarely cited. These studies are suggestive and intriguing. Yet, because they do not have data on age at marriage or detailed fertility measures, they are hard pressed to explain how, let alone why, tenants had higher fertility.

Tolnay (1984) found the rather confusing result of low fertility in areas of lower tenancy and in areas of high tenancy, with higher fertility in areas of moderate tenancy. The fertility variable used by Tolnay was the number of children born per year of marriage, which was .396 for the high tenancy counties, .473 for moderate-high tenancy counties, .475 for moderate-low tenancy counties, and .362 for low tenancy counties. These rates are not too different from those found at Vinton, which were .42 for black owners, and .50 for black renters (Table 4.8). For blacks (and whites) at Vinton, owners showed a lower number of children born per year of marriage than renters. The analysis of marital status

suggested that women in black owning households were slightly more likely to have been married before, and thus to have had a disruption in marriage. Whether this could be enough to account for their slightly lower number of children per year of marriage, or whether renters really had a faster pace of childbearing, remains to be demonstrated. It is possible that the low fertility Tolnay observed in high tenancy counties was caused by conditions of poor health in some of these counties. (Tolnay 1984).

To return to the issue of the higher level of family limitation for owners, the most convincing work on this subject has been that of Stern (1979, 1983, also Katz and Stern 1981). The bulk of Stern's work is based upon an examination of fertility differentials according to ethnicity and occupation in Erie County, New York from 1855 to 1915. He found that fertility declined most rapidly for professionals and what he called the "new business class" of managers and clerical workers, while it increased for unskilled workers. Fertility declined slowly for the old business class, and even more slowly for skilled workers. In his analysis for circa 1900 he found a fertility rate of 3.75 for the new business class, compared to a rate of 4.53 for the old business class, 5.47 for skilled workers, and 6.21 for other workers. Although Stern did not calculate m values, he noted that the fertility reduction among whites was largely in the later years, which is congruent with family limitation.

One can then generalize from Stern's findings that because this new business class was strictly an urban phenomenon, fertility in urban settings should be relatively lower and show a greater incidence of family limitation, which is the case in the present study. Although the West Point urban sample is not broken down by occupation, it is suggested that the owners would have a higher proportion of households in the professional and managerial, or "new business" class, who would practice more family limitation. It is hypothesized that the renters would have a higher proportion of skilled and unskilled

workers, who should show a lower level of family limitation. The level of family limitation for urban owners, (.992 black or .642 white) is considerable higher than the m for urban renters (.679 black or .35 white). However, it should also be noted that the difference between the urban white and rural white samples is small, and that a moderate level of family limitation is suggested for rural white owners. It is possible that rural white owners were increasingly moving away from agricultural production, considering the many problems associated with postbellum cotton agriculture (see Chapter 2). For example, the percentage of the rural population that was white declined from 1880 to 1910. In this case, aspirations for children to move into urban managerial and professional occupations may have influenced the fertility of rural whites, especially owners, in much the same way that it did the fertility of the new business class in town.

Stern's interpretation of the decline in fertility and of family limitation begins with the earlier observations of Banks (1954) that rising costs of education and declines in real income squeezed the middle classes into fertility reduction. However, Stern reorients Banks observations away from changes in the conditions or constraints surrounding consumption, instead focusing on changes in the organization of production and in the definition of class relations. He interprets the new business class as a new class formation, dependent upon education and the acquisition of information and managerial skills in a way that the old business class was dependent on inheritance of capital and other means of production. The new business class also depended increasingly on conspicuous consumption to set them apart from other wage workers. Difficulties in meeting these two goals given large parities led to family limitation. Stern also found that among the business class, those families with children in school had lower fertility. This does not conclusively establish his interpretation that a desire to educate children led to a reduction in fertility, since one could argue that it is those families that had less children that were able to save up enough for schooling. However, it offers some additional support.

Final Thoughts on the Domestic Mode of Production.

The fact that the household operated under a domestic mode of production, and as a separate unit of labor, is important to the analogy to proto-industrialization. Chapter 2 demonstrated the prominence of household-based production. The analysis presented in Chapter 5 showed that household composition and the household life cycle did have import effects on agricultural wealth, and to a lesser extent on agricultural production. However, the most important variables in looking at agricultural wealth (or means) and production were those of race, and especially land tenure. In many cases, such as with the variables of value produced, value of farm, or acres cultivated, land tenure was more important than race, so that, for example, the greatest wealth and value produced was seen for white owners, with the next highest wealth seen for black owners, then white renters followed by black renters, and so forth. This suggests the strength of class as an explanatory variable. In fewer cases, such as with value of stock or value of machinery, or number of swine, differences by race were so great that white renters were better supplied than black owners. One additional pattern was that white sharecroppers were often sufficiently without means to rank below black owners and renters. This was true for the variable of traction per acre or traction per worker, or value farm, or money spent on wages. Whereas some variables showed little difference between black renters and sharecroppers, white sharecroppers were usually shown to be much poorer than white renters.

Correlations between the labor power of the household and agricultural production were generally stronger for the black sample, suggesting their increased reliance on labor, relative to other agricultural inputs. Crop mixes or farming strategies were not easy to discern. There was little variation in the percent of land devoted to cotton by racial or tenure groups. However, owners clearly had more acreage, both improved and

unimproved. Unimproved acreage was important for hunting, and for keeping livestock, and the census data demonstrated that owners produced higher amounts of food crops. For every tenure group, whites also produced more food than blacks. Analysis of the accounts of black renting households, as recorded in the Watson ledger, suggested that households that were able to focus less on cotton, or at least purchase less food from the store, were more likely to end the season free of debt. This was supported by the regression analysis and the case study of the Pearce Mealor household.

The analysis suggests that the lower amount of land available to blacks limited their ability to increase production. Analysis of the relationship of the dependency ratio to a number of production variables, both utilizing the 1880 agricultural census data and utilizing the Watson store ledger, produced mixed results. Usually agricultural wealth variables, such as traction, value of stock, or value of machinery, were more successful than the dependency ratio in explaining variation in agricultural production. Although this finding does not support some of the predictions initially set out for this study, it is perhaps not surprisingly given that Chayanov's (1966) work assumed the availability of resources to intensify production . In the present case, additional acres of farm land were often not available, and renters and sharecroppers, especially blacks, lacked the credit to obtain land, or sometimes even basic agricultural supplies. Soil quality was very low by this time, so that it was difficult to increase yields per acre. Adding fertilizer was the most important way to increase yields, but fertilizer was often controlled by the landlord. It was especially hard for sharecroppers to afford or obtain fertilizer, given their lack of credit. The study did show that owners were more likely to show a positive relationship between the consumer/worker ratio and agricultural production.

Chayanov did not propose that household composition was the only, or even necessarily the most important, variable influencing agricultural production. It was

household composition, together with other demands on value created, such as loans or rents, that jointly determined a curve of marginal utility, which in turn influenced production (Durrenberger 1984). Chibnik's (1987) study of Iowa farm owners in 1880 provided limited support that nineteenth century American farm owners did intensity production in response to a high dependency ratio. He also demonstrated the value of household composition in explaining variation in production in a variety of settings worldwide. Other studies, such as Herring (1984) have also demonstrated the value of looking at household composition in relation to the agricultural production of tenant farmers. In this case, tenant farmers were shown to produce more per acre than owners. While from the perspective of neo-classical economics, they should have produced less per acre than owners, because they could not as fully enjoy the benefits of the household's labor, Herring showed a correspondence between their increased production and higher consumer/worker ratios.

One limitation with the present study is that the only variable available to measure intensification of production is the final output, or the value produced. Especially in the case of agriculture, where yields can vary tremendously according to soil quality and additives like fertilizer, it would be preferable to have a more direct estimate of labor intensification, or the lack thereof, such as from a time-task analysis. It is quite possible that labor inputs were increased according to household needs, but that returns to these inputs were very small or negligible, due to lack of land, fertilizer, and credit.

The decreased ability of tenant farmers in this setting to effectively intensify production was suggested by the discussion of the development of this particular form of tenant farming, and its relationship to racial discrimination. In this and other cases, any emphasis on "self-exploitation" that turns attention away from larger structural constraints may be somewhat misleading. Herring (1984) notes that "the small farmer with many

mouths to feed on little land intensifies production, as Chayanov (along with Kautsky and Lenin) emphasized, but with very little choice. The "self-exploitation" is in fact structural exploitation, related to the structure of distribution of holdings, off-farm employment opportunities, prices of inputs, output and consumer goods, farm taxes, and so on. The small farmers who engage in "self-exploitation" did not create or choose that structure, despite mystifying voluntaristic construction of both Chayanovian and neoclassical perspectives" (Herring 1984:145).

Thus it is crucial that any analysis of household composition and its relationship to production place this relationship in the broader context of a local economy and in turn its relationship with macro-economic structures, which the present study has aimed to do. However, this is not to say that the perspective of the household as a self-regulating unit aimed at meeting its own needs and taking household composition into account has been shown to be of little use. The correspondence of household compositional, marriage, and fertility differentials between households according to their structural positions (renters compared to owners as well as blacks compared to whites) suggests the importance of class and racial divisions within postbellum Southern society and suggests that household were extremely significant units that operated within the constraints of the context in which they found themselves.

By focusing on these households, their structure and composition, their agricultural production, and the patterns of marriage and fertility behavior that formed them, and by looking to the individual perspective as well as that of the household, the present study has tried to shed light on the processes by which structures, especially class structures, were created and maintained. In this goal, the study has tried to follow Herbert Gutman's (1987a) plea for attention to "essential" questions, or what he called "the Sartre question" (Gutman 1987b). These questions are ones that focus on how social classes have

"interpreted and than dealt with changing patterns of economic, social, and political dependence and inequality" (Gutman 1987b:327). The present study did not assumed that the participants merely reacted to their surroundings, although they certainly operated within constraints. In the case of black households, racial discrimination and accompanying violence meant these patterns or constraints could be very powerful. However, differences between black and white household composition suggested that the black households drew upon their own kinship system,with its greater emphasis on an enlarged kin network and alterante generational bonds, to cope with the constraints imposed within the postbellum South. In contrast, signs of an enlarged kin network were weaker among the white sample, and when present, as in the form of stem family households, oriented more toward property transmission.

Gutman (1987b:327) further suggests that "Americans, especially in this century, have associated the escape from dependence much too narrowly with possesive individualism. Addressing the Sartre question and reexamining American working-class history reveals a shifting tension inside and outside the workplace between individuals and collective ways of achieving autonomy." Gutman's emphasis is especially appropriate to the study of postbellum Southern society, for it was in large part ex-slaves desire for autonomy that influenced the adoption of the household-based system of production that this study has suggested was so influential in shaping not only the economic but the demographic structure of the South.

APPENDIX

APPENDIX.

CATEGORIES AND CLASSIFICATIONS

I. Household types
- 1 husband wife
- 2 husband and wife plus children
- 3 singe parents and children
- 4 adult siblings
- 5 no conjugality but kinship
- 6 no kinship
- 7 solitary (single individual)

II. Categories of extension
- 1 none
- 2 single mother
- 3 single father
- 4 both parents
- 5 widowed son
- 6 widowed daughter
- 7 widowed son and his children
- 8 widowed daughter and her children
- 9 married son and wife
- 10 married daughter and husband
- 11 married son, wife, and children
- 12 married daughter, husband, anc children
- 13 grandchildren alone
- 14 combinations
- 15 grandfather
- 16 grandmother
- 17 two or more grandparents

III. Categories of Expansion
- 1 none
- 2 single brother
- 3 single sister
- 4 multiple siblings
- 5 brother and his children
- 6 sister and her children
- 7 brother and sister and children
- 8 married brother and wife
- 9 married sister and husband
- 10 married brother, wife and children
- 11 married sister, husband, and children
- 12 niece
- 13 nephew
- 14 multiple nieces and nephews
- 15 cousin

16 cousin and children
17 cousin and spouse
18 cousin, spouse, and children
19 aunt
20 aunt and her children
21 aunt and uncle
22 aunt, uncle, and children
23 uncle
24 uncle and his children
25 combinations
26 relation uncertain
27 grandneice or nephew

IV. Categories of Augmentation
1 none
2 single boarder
3 married boarder and spouse
4 single boarder and children
5 boarder, spouse, and children
6 single servant
7 servant and spouse
8 servant and children
9 servant, spouse, and children
10 servants, siblings
11 boarders, siblings
12 combinations
13 friend

V. Household stages

Households are coded by the following stages, based upon combinations of age of mother and age of children, as follows:

Table A.1. Household stages.

	Age of Mother			
	< 25	25-34	35-44	45+
age of children (years)				
no kids	21	22	23	24
all kids < 15	31	32	33	34
at least one child > 14	41	42	43	44
all kids > 14	51	52	53	54

In the analysis, Summary Stages 1 through 5 were defined as follows, with Stage 1 being the youngest and Stage 5 the oldest.

1 21+22
2 31+32+33
3 34+43
4 44+52
5 23+24+53+54

A condensed three part system was also developed for use when sample size was low:

1(young) 21+22+31+32
2 (mid) 33+34+42+43+44
3 (mature) 23+24+52+53+54

V. Relationship of individuals to head of household, as designated in census

1 head
2 spouse
3 son or daughter
4 parent
5 sibling
6 neice or nephew
7 boarder
8 cousin
9 kin, but exact relationship unknown
10 servant
11 aunt or uncle
12 grandparent
13 grandchild
14 grandneice

VI. Marital Status

1. 1st marriage
2. 2nd marriage

3. 3rd marriage
4. 4th marriage
5. single
6. divorced
7. widowed
8. other

VII. Status of children in relation to mother
1. unknown, questionable
2. probable connection
3. good connection
4. good connection, and both partners in first marriage

VIII. Reasons for status 1 children (from above)
1. father there, but mother not there
2. more children present than mother has surviving, and serial marriage
3. grandchild of head, and mother not present
4. niece or nephew of head, and mother not present

VIII. Measures of Consumers and Workers, for calculation of dependency ratio. Following Chibnik (1986)

Table A.2 Consumer/worker equivalents

AGE (years)	CONSUMERS Males	Females
70+	.7	.7
16-70	1.0	.8
11-15	.7	.7
6-10	.4	.1
0-5	.1	.1

	WORKERS Males and Females
71+	.3
61-70	.7
21-60	1.0
16-20	.7
11-15	.3

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