A case study of the farm crisis of the 1980s

by

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CHAPTER I. INTRODUCTION

Purpose/Significance

Over the past decade the state of Iowa has experienced heightened economic distress, resulting from the farm crisis. The crisis in Iowa has led to progressive demographic changes resulting in increased out-migration, especially of younger more mobile families, leaving behind an increasingly older population (Lasley, 1987 and Bultena, Lasley, and Geller, 1986). According to Lasley and Goudy (1989) the average value of land and buildings per farm in Iowa decreased by $187,000-nearly 40 percent between 1982 and 1987. They also found that the average value of land in Iowa declined by nearly 44 percent between 1982 and 1987. These changes led to farm foreclosures, devaluation of farm land and property, and more than a 15 percent increase in the number of supplementary income recipients. These are just a few of the examples of the impact of the farm crisis of Iowa. The purpose of this case study is to document the socioeconomic and demographic conditions in five agriculturally dependent counties and two urban counties in Iowa. A secondary data analysis has been conducted to explore socioeconomic changes in Iowa during the farm crisis of the 1980s. This analysis will also include a brief historical overview of the socioeconomic condition of Iowa prior to the 1980s.

The United States has lost over three million farms since 1935 (Kirkendall, 1987). Easterbrook noted that in 1951 the number of farms declined by 220,000, in 1956 by 140,000, and in 1961 by 138,000. During the 1980s, Harl (1987) found that agriculture was experiencing the most wrenching financial adjustment in a half century. Since the 1930s, no other socioeconomic factor (debtor distress) gripped rural America as much as the effects of the farm crisis of the 1980s (Albrecht et al., 1988 and Harl, 1987). Empirical support for this position is as follows: (1) In several agricultural states, land values have dropped by one-half or more since 1981, cutting enormous amounts of collateral value and wealth from balance sheets; (2) The number of farm foreclosures, forfeitures of land contracts, and defaults on notes have reached levels not seen since the days of the Great Depression; (3) The level of emotional trauma being suffered by indebted farmers and small business persons is a tragedy of awesome proportions (Albrecht et al., 1988; Harl, 1987; Lasley, 1987; Lasley and Phillips, 1986).

Lasley (1987) traced the history of agricultural change from the mid-1800s to the 1980s. He focused on three periods of agricultural advancement. Those periods included the industrial revolution of the 1800s, the mechanical revolution of the mid-1900s and the biogenetic revolution of

the 1970s. The following is a brief overview of Lasley's discussion on agricultural change in Iowa.

Social Change in Agriculture

Before the mid-1800s the rate of agricultural change was slow. However, with the onset of the industrial revolution the rate of change in agriculture accelerated. It brought mechanization to the farm. Therefore, while farm size had been limited previously by the endurance of men, women, and draft animals, it was now possible for farm size to increase by substituting capital investments for human and animal power. This led to a decrease in farm employment opportunities and increased farm productivity.

Changes in agriculture occurred again in the mid-1900's as a result of the mechanical revolution. It brought with it increased mechanization and energy intensification of agriculture. This form of advancement introduced commercially produced fertilizers, agricultural chemicals, hybrid seed corn, and further refinements in agricultural equipment.

In the mid-1980s an even more profound advancement in agriculture occurred, the biogenetic revolution. These developments made it possible to genetically alter plants and animals. This created almost limitless advancement for agriculture.

Consequences of Social Change

There have been a number of consequences of social change in agricultural development. The most noted change in agriculture has been the increasing rapid decline in the number of farms. More specifically the small family farms have declined greatly as a result of technological change. An interesting finding is that the larger farms have gotten even larger while the smaller farms have declined (Lasley and Goudy, 1989). Technology has also resulted in part-time farming. In Iowa between 1930 and 1982 part-time farming increased from 18% to 40% (Lasley, 1987). Modern technology has significantly reduced the need for labor, resulting in fewer people working on the farm and living on the farm.

As mentioned earlier, agricultural advancement resulted in a sharp decline in the number of farms, since the early 1900s. Other negative consequences of agricultural advancement are rising unemployment, declining retail trade, devaluation in land value, rising debt-to-asset ratios and development of rural ghettos. These are but a few examples of the negative impact of agricultural advancement. Iowa has been hit hard because it is primarily agriculturally dependent. It is important to note here that Iowa as well as other agriculturally dependent states have been impacted similarly by agricultural advancement (Lasley, 1987).

Adaptation to Change

The social and economic consequences discussed above highlight the crisis situation in Iowa. This situation reaches not only Iowans but also the rest of America. It involves the restructuring of communities and institutions to meet the needs of people. The problems plaguing Iowa in the 1980s resulted from an inability of institutions and people to adjust to a rapidly changing economy.

Social change is an expected occurrence in Iowa. Increased mechanization, technological advances and food substitutes are but a few of those changes. In response to change, efforts have been made to generate additional monies for the state. This has been characterized for example, by the institution of state and local lotteries and at the university level increased areas of specialization.

Adaptation to change, however, is often very difficult; particularly when this change involves changing the normative structure, culture and perhaps ways of thinking. Because of the rapid changes resulting from the farm crisis, adaptation has been slow and difficult. Problems associated with adapting to change stem largely from individual/family coping skills that are overwhelmed by the enormity of the changes with which they must deal. People deal with stress based upon their coping skills. Consequently, those lacking in the high level of skills needed to handle such pervasive

changes find themselves unhappy, unmotivated, and feeling a lack of control. Because social change has been so rapid and the options for adaptation so limited, it has been difficult for individuals, families, as well as institutions to adapt to the change. From this perspective, this is a population "at-risk."

It should be noted that adaptation to change is at the far end of the coping spectrum. A demonstration of the importance of this statement can be described as follows: First, the problem has to be identified (economic hardship in the form of increased unemployment or income loss). Second, this could possibly lead to a decline in the retail trade industry of a community/state. Third, this loss could directly contribute to the loss or erosion of job opportunities for the state. Fourth, this could lead to people migrating to other areas of the country where job opportunities are available. The fourth stage of this scenario characterizes the impact of social change. Therefore, social response to change becomes complex and far-reaching.

A comprehensive design of intervention strategies and/or approaches are needed for the purpose of planning intervention services for this at-risk population. The services should cover both psychological and financial counseling and planning for individuals as well as families.

A first step toward achieving the development of comprehensive intervention programs (designed to minimize the adverse impacts of financial distress) is to document the seriousness of the problem and examine the extent to which adaptation has occurred. This will provide a basic foundation to anticipate further restructuring and help facilitate more effective adjustment to the process of change. This is the major thrust from which the topic of this case study was developed.

Theoretical Perspective

The theory of demographic change and response is the guiding theoretical perspective that serves as the foundation for this research. This theory is proposed as an attempt to help clarify or codify the "ripple effect" described in numerous research studies regarding the socioeconomic effects of the farm crisis. The theory of demographic change and response was developed by Davis (1963) as an adjunct to the demographic transition theory, a perspective that emphasizes the importance of economic and social development, which leads first to a decline in mortality and then, after some time lag, to a commensurate decline in fertility-based on the experience of the developed nations (Weeks, 1989). Initially, the basic problem this theory attempted to deal with was "how (and under what conditions) can mortality decline lead to a

fertility decline)." The model explores what factors influence changes in one demographic variable that subsequently cause changes in another variable. This elemental inquiry is a basic component of this case study. Specifically, this study examines the influence of the farm crisis on demographic changes. The major stressor that precipitated these demographic changes addresses Davis' second question of sociological inquiry - under what conditions can certain demographic change (mortality decline lead to fertility) cause changes in other demographic variables. This theoretical perspective not only examines demographic change but also demographic response.

Davis, argued that the response that individuals make to the population pressure created by more members joining their ranks is determined by the means available (Weeks, 1989). A first response, non-demographic in nature, is to try to increase resources by working harder-longer hours perhaps, a second job, and so on. Elder (1974) also observed this non-demographic response. His work focused on economic deprivation during the Great Depression. He found that economic deprivation tended to generate pressures for change in three areas: in family maintenance, in the perceived status or position of the family, and in the breadwinner's status within the family. He pointed out that

the initial problem of economic deprivation concerned the disparity between income on the one hand, and family needs and their customary level of consumption on the other. Elder found that some families could maintain their financial status, despite loss of the breadwinner's earnings, by relying upon savings, loans, and the new earnings of other family members. If that was not sufficient, then migration of some family members (typically unmarried sons or daughters) was the most frequent demographic response. Research has also indicated that farm families are working longer hours, other family members are now employed outside the home and second jobs are being sought (in an exerted effort by the farm family to help either save the family farm or to simply make ends meet financially) (Bultena et al., 1986).

One of the most important contributions of Davis to the demographic perspective is his reliance upon an implicit model of the actor who makes every day interpretations of perceived environmental change (Weeks, 1989). For example, people will respond to an increase in unemployment and their response will be determined by the social situation in which they find themselves. The theory of demographic change and response was one of the first demographic theories to suggest the important link between the every day lives of individuals and the kinds of population changes that take

place in society. It is because of this association between the humanistic component (every day lives of individuals) and the quantitative component (demographics) that jointly help to explain the effects of demographic change.

The predominate variation of this theory that is proposed is that social response to a given demographic change can (in itself) influence other demographic changes in society. This idea has been indicated in research studies on the farm crisis (Davidson, 1990; Bultena et al., 1986; Conger and Lasley, 1986). It has been highlighted by the "ripple-effect" of socioeconomic factors. The "ripple-effect" is a demographic trend that has been documented in several research studies on the farm crisis. For example, it has been found that a decrease in total population (in an agriculturally dependent state) resulted from a decrease in the number of farms and an increase in the size of farms (demographic change in one area precipitated change in other socioeconomic areas) (Heffernan and Heffernan, 1985).

CHAPTER II. LITERATURE REVIEW

The Farm Crisis

There has been a substantial amount of research conducted on the farm crisis. Much of the research focused on the financial and emotional toll of the farm crisis on farm families. There have not been any studies that utilized a demographics approach to studying the farm crisis, although most (if not all) of the previous studies used demographics to describe economic trends in the rural economy.

Research has indicated that farmers who are the most financially distressed and vulnerable to displacement are younger and better educated (Albrecht et al., 1988; Lasley and Phillips, 1987; Bultena et al., 1986). Change in population can influence many other changes in the rural community. Population decrease can cause a decrease in the availability of community resources (by decreasing the number of taxpayers, therefore, reducing the amount of money allocated for community resources). This is but one example of how population change can influence other aspects of the rural economy.

Population change can also affect the status of main street business, all of which could contribute toward placing an emotional on the family structure (increased financial demand on an already declining farm economy)

(Davidson, 1990; Bultena et al., 1986; Lasley and Conger, 1986; Heffernan and Heffernan, 1985). This change in the structure of the population causing change in other aspects of the economy can be described as the "ripple effect" of the farm crisis. It can be likened to the falling of dominoes which have been placed standing side by side. Simply knocking one domino down causes all the other dominoes to fall (the falling of the other dominoes is the ripple effect). This rippling effect can have a devastating effect on the rural economy and family structure. This could cause unwarranted stress on the structure of the family and its functioning, and place a severe toll on the provision of community services and facilities (Albrecht et al., 1988; Conger and Lasley, 1986; Heffernan and Heffernan, 1985; Lasley, 1985).

Research has revealed that extensive changes in agriculture has occurred in response to the farm crisis. The consistent trend has been that there has been an increase in the size of farms and a decrease in the number of farms. Lasley (1987) found that the changing structure of agriculture in the rural economy has caused changes on both the community and individual/family levels. More specifically, at the community level change in the structure of agriculture has influenced or caused a loss of the farm population, loss of retail trade, rural community

institution decline (schools, church, etc.), and an increase of demand on local relief agencies resources at the same time that resources become more scarce. On the individual/family level, this change could affect the mental health of the farm family (Harl, 1987; Murdock et al., 1987; Lasley and Conger, 1986; Heffernan and Heffernan, 1985).

These findings have added another dimension to the characteristics of the farm crisis, the demand on community level resources and the impact on the farm crisis on individuals and families (in terms of their need for mental health facilities). This indicates that the farm crisis has affected both the external (outside of self) and internal (psychological impact) structures of farm families' life. These occurrences represent an important point in emphasizing the overwhelming impact of the farm crisis on the rural community.

The previous discussion has emphasized the internal or emotional structure of the effects of the farm crisis. Researchers have found that the emotional impact of the farm crisis has caused an increase in the number of suicide among farm families (Davidson, 1990; Bultena et al., 1986; Lasley, 1987). Bultena and other researchers found that economic hardship triggers personal and social pathologies (1986). For example, threatened loss of employment or a precipitious downturn in financial prospects can cause physical illness,

psychological stress, depression, diminished life satisfaction, marital discord, alcoholism, and even suicide. These findings correspond with the findings of increased demand on mental health facilities in rural communities (local relief agencies within rural communities). Again, the ripple effect is observed. The economic impact of the farm crisis can lead to unemployment, which can lead to psychological or emotional discord within the family unit, which could lead to the need for a community relief agency.

A community relief agency can be described as an agency designed to assist individuals and/or families by providing services such as supplementary income which includes (but is not limited to) governmental (state and local governments and charities) assistance such as welfare, food stamps, and ADC (Aid to Families with Dependent Children), mental health assistance (forms of group, individual, and/or family counseling), and other forms of relief such as foster care.

Researchers have discussed the emotional toll of the farm crisis on the rural community and the farm family. An indication of the future of the farm crisis that stemmed from the large investments of farmers in the 1970s was examined by researchers. According to Freeman and Gordus (1979) economic change, whether contraction of the economy, plant shutdowns, increased rationalization and automation of work, plant mergers, or productivity gain results either

immediately or eventually in the loss of work for certain groups of people. Some of these workers will find themselves, to varying degrees, in financial trouble. As savings are depleted, they must find new sources of income or rely upon other members of the family for income. All of these options create stressful situations for these displaced workers in the form of resource insufficiency and economic deprivation. This situation can be characterized as consistent with much of what displaced farmers and their families are experiencing in response to the farm crisis.

A research study conducted by Albrecht and others (1988) revealed that farmers who have failed in agriculture were less likely to employ innovative technology, more likely to operate smaller farms, and were less educated. These findings are consistent with much of what has been mentioned earlier but it also points out that those unsuccessful farmers are reluctant to use advanced technology. This may be for a number of reasons much of which can be because of lack of knowledge about such advances, lack of available resources to make such purchases, or even a conflict with farming practices (may not desire to use the new; may be content with that which is most familiar).

In 1987, Doeksen developed a simulation model to depict the impact of the farm crisis on rural businesses and governments. He found that in rural communities (during

the farm crisis) those farmers who sought off-farm employment contributed significantly to the amount of out-migration. Those persons tended to migrate to urban centers for employment. Their migration contributed to a decrease in rural business sales, decline in tax dollars which led to reduced availability of services in rural communities. These findings add to the complexity of the "ripple effect" of rural economic decline in the farm economy. The "rippling" of negative consequences that takes place from this researcher's perspective began with the impact of the decline in the number of farms in rural communities. The results of this analysis emphasize that when farmers are forced out of business it has a direct effect on decreasing the number of farms. The reduction in the number of farms subsequently leads to an increase in farmers pursuing off-farm employment. If jobs are not available in the community farmers will migrate to other geographic locations where jobs are available.

Stages of the Farm Crisis of the 1980s

The farm crisis of the 1980s can be described as the development of long term economic hardship. Friedberger (1988) developed a chronology of the Iowa farm crisis. The stages are as follows: (1) inflationary spiral, 1981; (2) denial, beginning of deflation, 1982-1983; (3) confrontation, build up of advocacy February, 1984-1985; (4)

beginning of mobilization, 1985; 95) beginning of resolution, January, 1986. The process began in 1981 during an inflationary spiral that gave little hint of what was to come. The next stage, from 1982-1983, was a phase of collective denial, when most of the farm community was apathetic to what was beginning to occur and those who did appreciate the trends were ignored. During 1984 and the first two months of 1985, lenders and borrowers began to confront each other, and farm advocates began to build grass-roots movement to halt foreclosures and bankruptcy. By the spring of 1985, the state as a whole began to mobilize to deal with the symptoms of economic stress. In 1986, the state began to seek a resolution of the crisis.

CHAPTER III. METHODOLOGY AND STUDY AIMS

The Importance of Agriculture to Iowa

The focus of this thesis is to describe, through the use of secondary data, living conditions in agriculturally dependent counties during the farm crisis. The review of literature on the farm crisis indicates a number of trends existed in agriculturally dependent communities during economic hardship (the farm crisis). The literature review emphasized the consequences of economic hardship. The following consequences were discussed: (1) social variables--declining total population and increased out-migration; (2) mental health variables--increased stress, depression, marital discord, alcoholism, and suicides; (3) structure of agriculture--declining number of farms and increasing size of farms. Economic hardship was reflected by: (1) declining retail trade; (2) heightened need for supplementary income; and (3) elevated unemployment. This affected many other socioeconomic variables. It contributed to the decrease in the retail trade industry, causing stagnation in main street businesses. This contributed toward the increase in demand on local relief agencies (mental health sector as well as supplementary income sector).

Agriculture is the primary source of income for Iowa. According to Hady and Ross (1990) farming dependent counties

contributed an average of 20 percent (20%, weighted average) or more of total labor and proprietor income from 1981-1986 in the United States. They stressed several important points. The 1980s brought an abrupt reversal of the rural growth trends of the 1970s. The industrial and occupational restructuring of the rural economy, influenced by declines in farming and mining and growth in the service and construction industries, continued. Rural population growth slowed dramatically, with over two-fifths of the rural counties losing population between 1980-1986. The farming sector, which lost 333,000 jobs between 1979 and 1986, experienced serious financial distress during the early 1980s. Many farms and farm financial institutions went out of business during this period. Unlike the previous decade, rural unemployment surpassed urban unemployment, peaking at 10.1% during the 1980-1982 recession. The 1980-82 economic slowdown also caused rural earnings to stagnate, the rural/urban income gap to widen, and rural poverty rates to rise. Even after economic recovery from the recession, the rural/urban gap in incomes and earnings remained wider than in the 1970s. The rural poverty rate, unlike the urban poverty rate, failed to drop after several years of recovery.

Hady and Ross (1990) also emphasized the impact of the global marketplace on rural counties. They pointed out that

United States exports rose during the 1970s to over 10 percent of the gross national product (GNP). Because international trade is concentrated mainly in goods rather than services, rural economies (with their emphasis in goods and production) were especially sensitive to growth trade. Then, a rise in the dollar's value from 1980 to 1985 raised export prices and brought severe pressure on United States export markets, producing a sharp drop in exports and a rise in imports. There are a number of stories about manufacturers closing rural plants and contracting for overseas for production facilities. This points out the comprehensive impact of economic hardship in the rural economy and its subsequential impact on the American economy.

Analysis and Development of Variables

In addition to the measures of economic hardship addressed by the review of literature, there are other socioeconomic adjustments or responses that should be evaluated. First, it should be noted that this is a demographic analysis. Therefore, only two of the mental health variables discussed in the literature review will be addressed in this case study. Those mental health variables are the number of suicides and the number of divorces. Economic hardship should also be reflected by demographic

variables such as the total number employed and per capita income.

There are also other consequences of economic hardship that should be evaluated. Economic hardship could be reflected by the number of births (couples having fewer children). Economic hardship could also be reflected by the number of persons admitted to mental health facilities and by the number of marital dissolutions (divorces). Therefore, this case study will address the following socioeconomic conditions: (1) economic hardship will be measured by retail sales, unemployment, total employment, per capita income, and supplementary income (food stamps and ADC); (2) consequences of economic hardship will be measured by several social indicators including total population, number of births, and net-migration; mental health indicators-number of suicides, number of persons admitted to mental health facilities, and number of divorces; structure of agriculture indicators-number of farms and average size of farms.

If the literature review and the theory of demographic change and response are correct, the following consequences of economic hardship are expected to be found:

Measures of Economic Hardship

1. Retail sales are expected to declines.
2. Unemployment is expected to increase.

3. Total employment is expected to decline.
4. Per Capita income is expected to decline.
5. ADC (Aid to Dependent Children) is expected to increase.
6. Food stamps distributed are expected to increase.

Consequences of Economic Hardship

1. Population is expected to decline.
2. Number of births are expected to decline.
3. Out-migration is expected to increase.
4. Number of suicides are expected to increase.
5. Number of mental health admissions are expected to increase.
6. Number of divorces are expected to increase.
7. Number of farms are expected to decline.
8. Size of farms is expected to increase.

This research relies upon analyses of secondary data. Demographic characteristics are indicators of the social and economic organization of a given population (society). In other words, demography is concerned with virtually everything that influences, or can be influenced by population size distribution, process, structure, or characteristics (Weeks, 1989).

The study population includes seven Iowa counties, that lie in the middle of the north central region of Iowa. The counties are Butler, Franklin, Hamilton, Hardin, Marshall,

Webster, and Wright. Five of the seven counties are defined as rural counties and the remaining two are defined as urban counties. Rural counties are defined as counties with a total population of less than 25,000. The rural counties in this case study are Butler, Franklin, Hamilton, Hardin, and Wright. Urban counties are defined as counties with a total population greater than 25,000. The urban counties in this case study are Marshall and Webster. The selection of these particular counties was made by the investigating team of the Iowa Youth and Families Project (IYFP). The collection of secondary data for this project is one of many sub-projects concerned with studying farm families during the farm crisis. The Iowa Youth and Families Project is a longitudinal study sponsored by the National Institute of Mental Health (a proposed five year study of farm families). The data for this case study were collected from census reports for the state of Iowa. Data were also collected from specialized census publications published by Iowa State University Extension Services (Sociology and Economics Departments) and the Iowa Department of Human Services in 1988-1990.

The statistical procedures that will be used to analyze the data are trend line statistics (descriptive statistics). More specifically, the data will be presented through the

use of bar graphs and statistical charts. It is hoped that this study will contribute toward the goal of codifying existing social and economic trends in communities in Iowa.

CHAPTER IV. FINDINGS

Measures of Economic Hardship

This section will consider the findings in the following order: (1) retail sales; (2) unemployment; (3) total employment; (4) per capita income; (5) transfer payments in the form of ADC and food stamps. Retail sales increased from 1970-1979 in all seven counties, with the smallest increase occurring in Webster and Marshall counties (see Figure 1). In 1981-1988, retail sales declined in the rural counties with one exception (see Figure 2). Hamilton County and the two urban counties Marshall and Webster, experienced different changes. Hamilton and Marshall Counties increased in retail sales whereas, Webster County exemplified some stability (experienced a small increase in retail sales in 1985-1988 which was followed by a decrease in 1988). More specifically, retail sales in the five agriculturally dependent counties (Butler, Franklin, Hamilton, Hardin, and Wright) increased by 155.2 percent from 1971-1979 compared to 114.2 percent for the two urban counties during the pre-crisis years 1971-1979 (see Table 1). Marshall County experienced the smallest increase in retail sales during this period at 113.4 percent whereas, Hamilton County experienced the greatest increase in retail trade at 216.1 percent. Throughout the farm crisis years (1980-1988) Hamilton County experienced the greatest

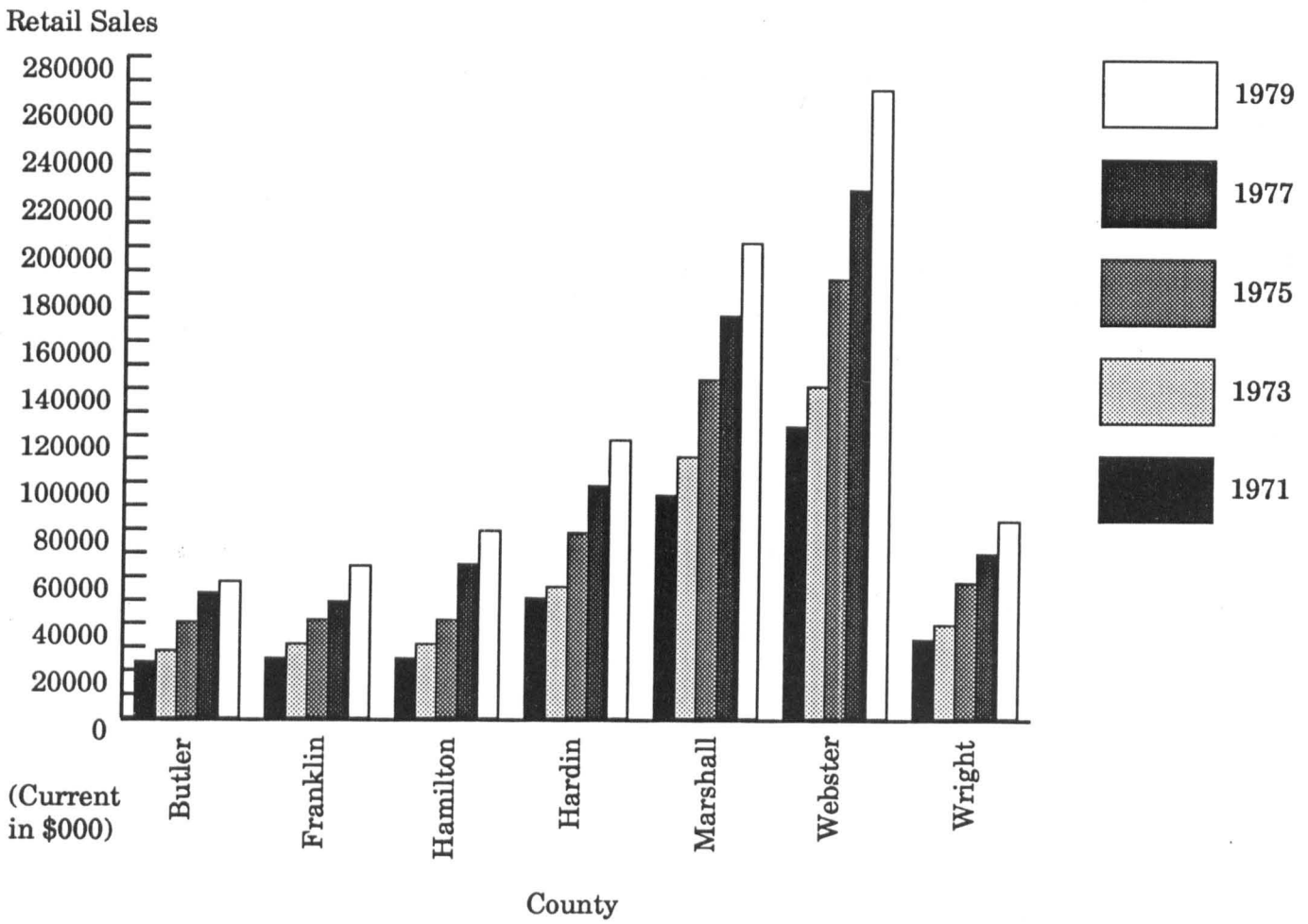

Figure 1. Retail sales, 1971-1979

Source of Data: Iowa Retail Sales and Use Tax Report, Ames: Iowa Department of Revenue and Finance and Iowa State University Extension Services, 1989

Table 1. Change in retail sales 1971-1979

County	1971	1979	Dollar Change	Percent Change
Butler	23715	57867	+34152	+144.0
Franklin	25140	64781	+39641	+157.7
Hamilton	25140	79455	+54315	+216.1
Hardin	50799	118194	+67395	+132.7
Marshall	94759	202183	+107424	+113.4
Webster	124204	266926	+142722	+114.9
Wright	33547	83805	+50258	+149.8
Rural	158341	404102	+245761	+155.2
Urban	218963	46109	+250146	+114.2

Source of Data: Iowa Retail Sales and Use Tax. Ames: Iowa Department of Revenue and Finance and Iowa State University Extension Services. (Current in $000)

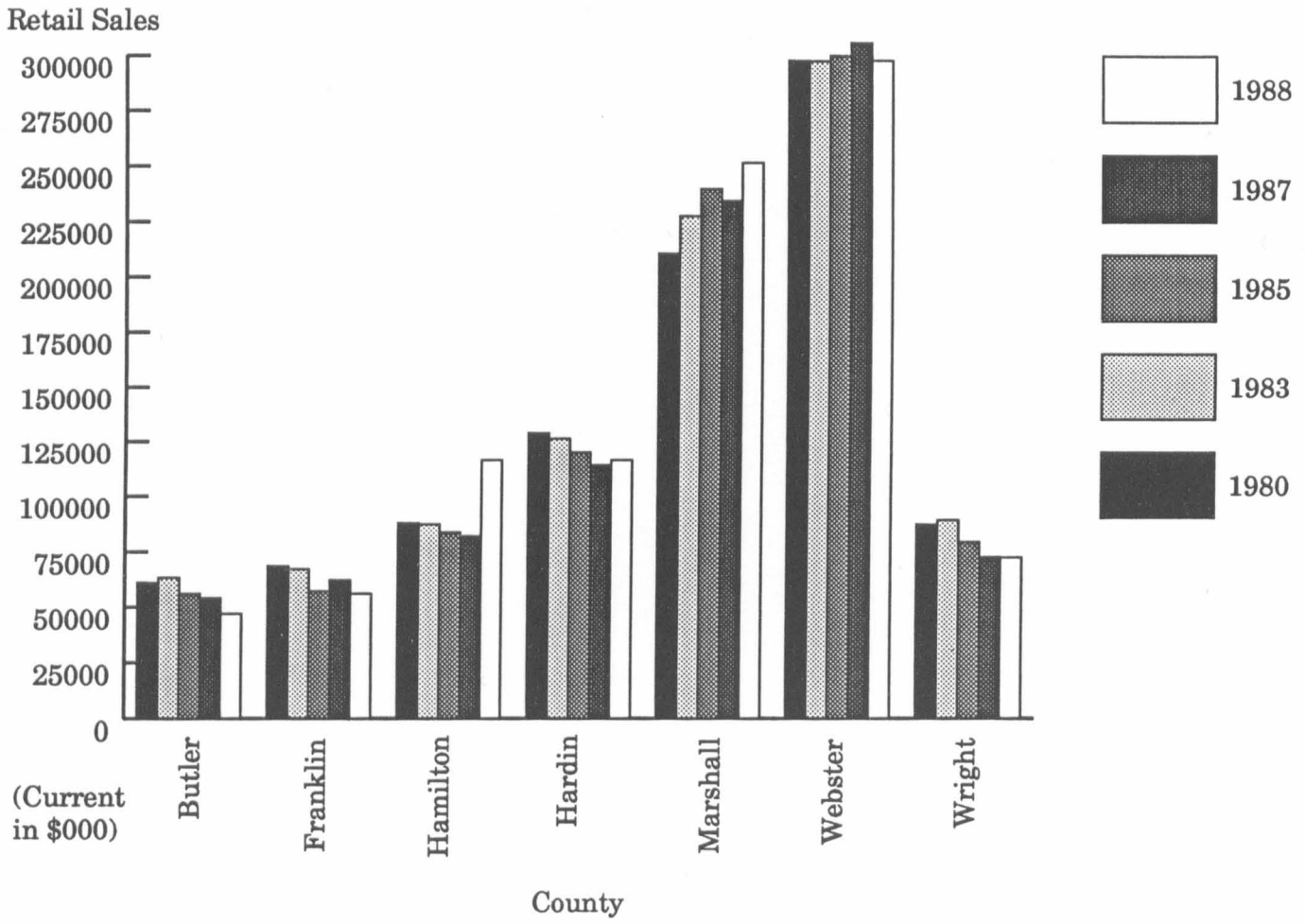

Figure 2. Retail sales, 1980-1988

Source of Data: Iowa Retail Sales and Use Tax, Ames: Iowa Department of Revenue and Finance and Iowa State University Extension Services, 1989

Table 2. Change in retail sales 1980-1988

County	1980	1988	Dollar Change	Percent Change
Butler	61055	47027	-14028	-23.0
Franklin	68697	56102	-12595	-18.3
Hamilton	87868	116399	+28531	+32.5
Hardin	128964	116399	-12564	-9.7
Marshall	210844	251609	+40765	+19.3
Webster	298213	290808	-7405	-2.5
Wright	87188	72469	-14719	-16.9
Rural	433772	408396	-25376	-5.9
Urban	509057	54704	+40647	-8.0

Source of Data: Iowa Retail Sales and Use Tax. Ames: Iowa Department of Revenue and Finance and Iowa State University Extension Services. (Current in $000)

increase in retail trade at 32.5 percent whereas, Butler County experienced the greatest decline at 23.0 percent (see Table 2). Retail trade increased during the pre-crisis years and throughout the crisis years the rate of increase declined.

The number of unemployed increased from 1980-1983 across all seven counties (see Figure 3). In 1985, the number of unemployed began to decline. The urban counties declined by almost 25 percent during the farm crisis whereas the rural counties declined by only 8.3 percent (see Table 3). These finding indicate that after the 1982-1983 recession more jobs became available thus reducing the number of unemployed. This was also reflected in total employment. The work force contracted in three of the rural counties between 1980 and 1988 (see Figure 4 and Table 4). Hamilton County is the exception. However, one of the urban counties likewise experienced a decline in total employment, Webster County.

The findings of this case study revealed that across all seven counties per capita income has increased from 1970-1988 (see Figure 5 and Tables 5-6). During the farm crisis, Wright County experienced the greatest increase in per capita income at 61.2 percent whereas Webster County experienced the lowest increase in per capita income at 39.3 percent (see Table 6). These findings indicate that

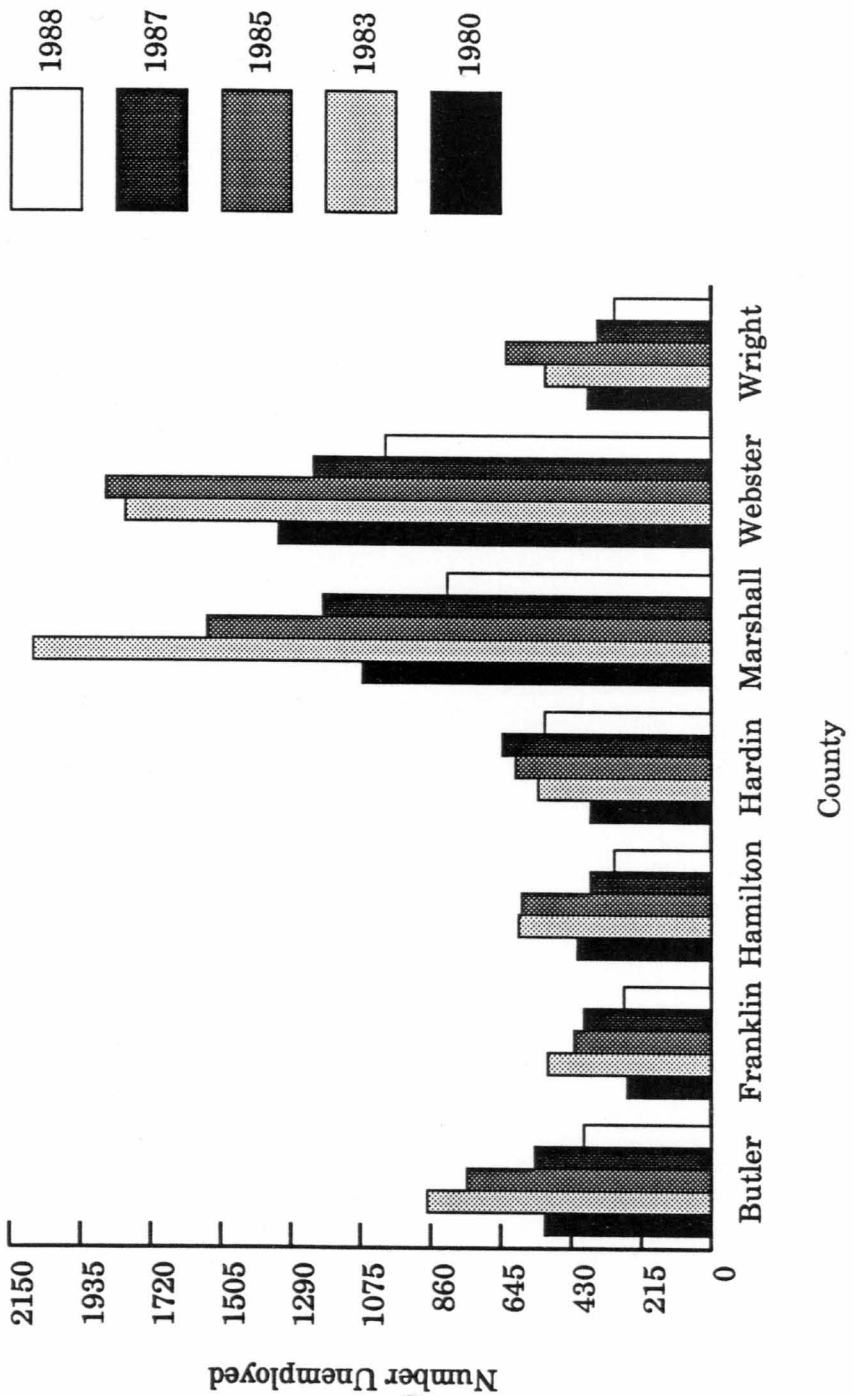

Figure 3. Number unemployed, 1980-1988
Source of Data: Iowa Labor Force Summary, Current Population Survey

Table 3. Change in the number of unemployed 1980-1988

County	1980	1988	Number Change	Percent Change
Butler	510	390	-120	-23.5
Franklin	260	270	+10	+3.5
Hamilton	410	300	-110	-26.8
Hardin	370	510	+140	+38.0
Marshall	1070	810	-260	-24.3
Webster	1330	1000	-330	-24.8
Wright	380	300	-80	-21.1
Rural	1930	1770	-160	-8.3
Urban	2400	1810	-590	-24.6

Source of Data: Iowa Labor Force Summary, Current Population Survey.

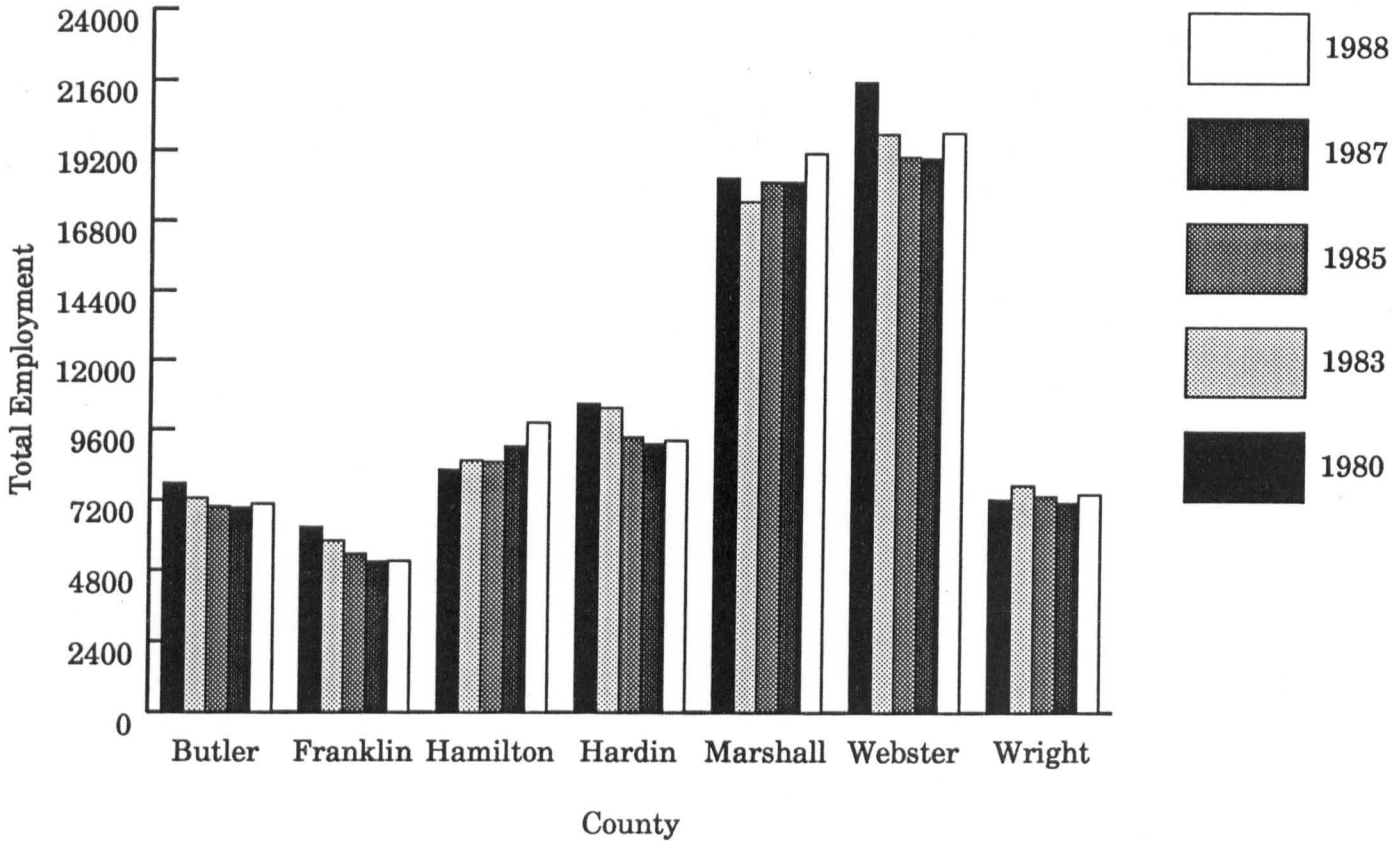

Figure 4. Total employment, 1980-1988

Source of Data: Iowa Labor Force Summary, Current Population Survey

Table 4. Change in total employment 1980-1988

County	1980	1988	Number Change	Percent Change
Butler	7780	7070	-710	-9.1
Franklin	6280	5120	-1160	-18.5
Hamilton	8250	9860	+1610	+19.5
Hardin	10520	9240	-1280	-12.2
Marshall	18300	19130	+830	+4.5
Webster	21590	19860	-1730	-8.0
Wright	7260	7430	+170	+2.3
Rural	40090	38720	-1370	-3.4
Urban	39890	38990	-900	-2.3

Source of Data: Iowa Labor Force Summary, Current Population Survey

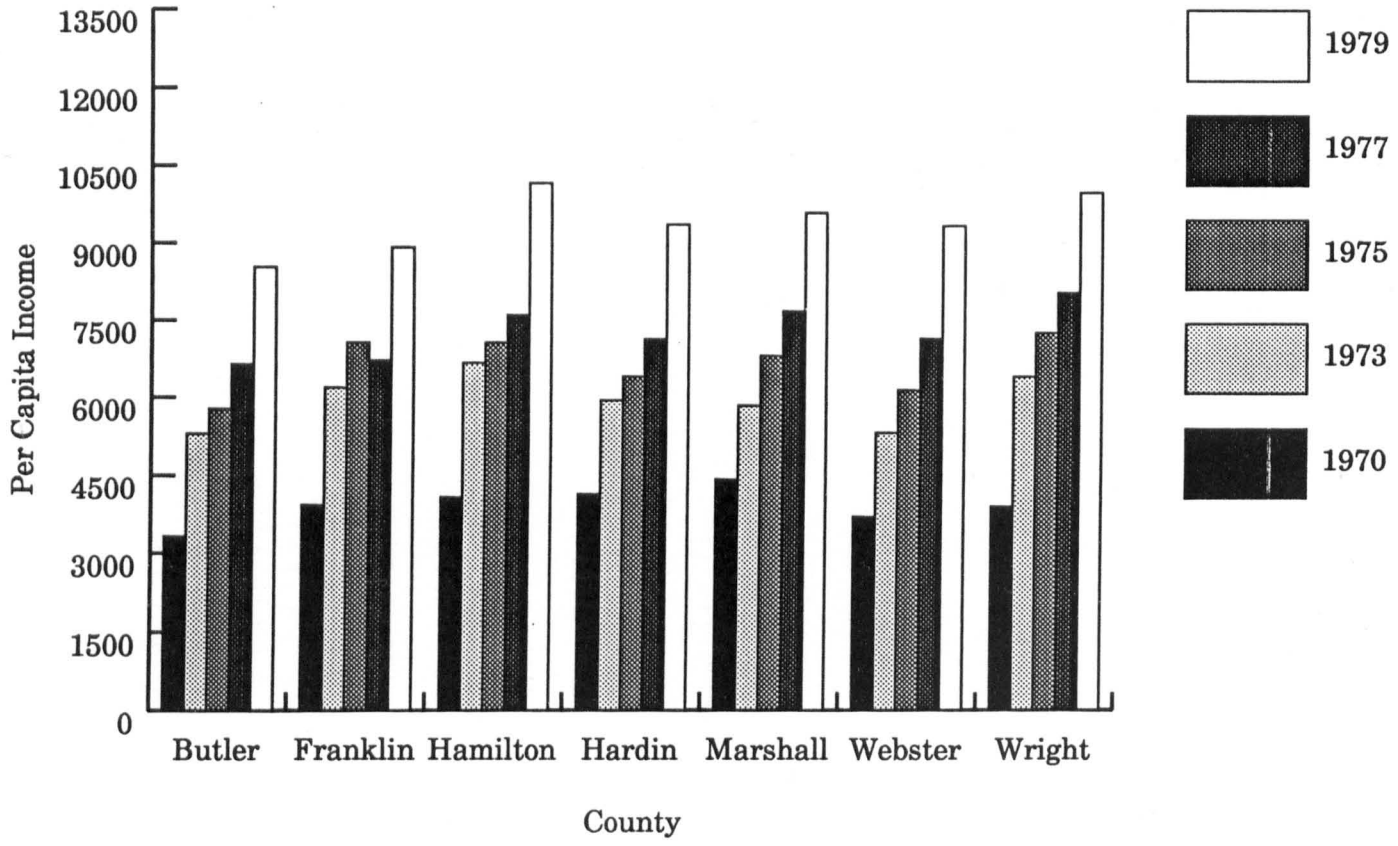

Figure 5. Per capita income, 1970-1979
Source: Goudy and Burke, 1989 (Current in $000)

Table 5. Change in per capita income 1970-1979

County	1970	1979	Number Change	Percent Change
Butler	3331	8536	+5205	+156.3
Franklin	3932	8911	+4979	+126.6
Hamilton	4073	10160	+6087	+149.5
Hardin	4138	9363	+5225	+126.3
Marshall	4429	9588	+5159	+116.5
Webster	3709	9887	+5628	+151.7
Wright	3906	9994	+6088	+155.9
Rural	19380	46558	+27178	+140.2
Urban	8138	19331	+11193	+137.5

Source: Goudy and Burke, 1989
(Current in $000)

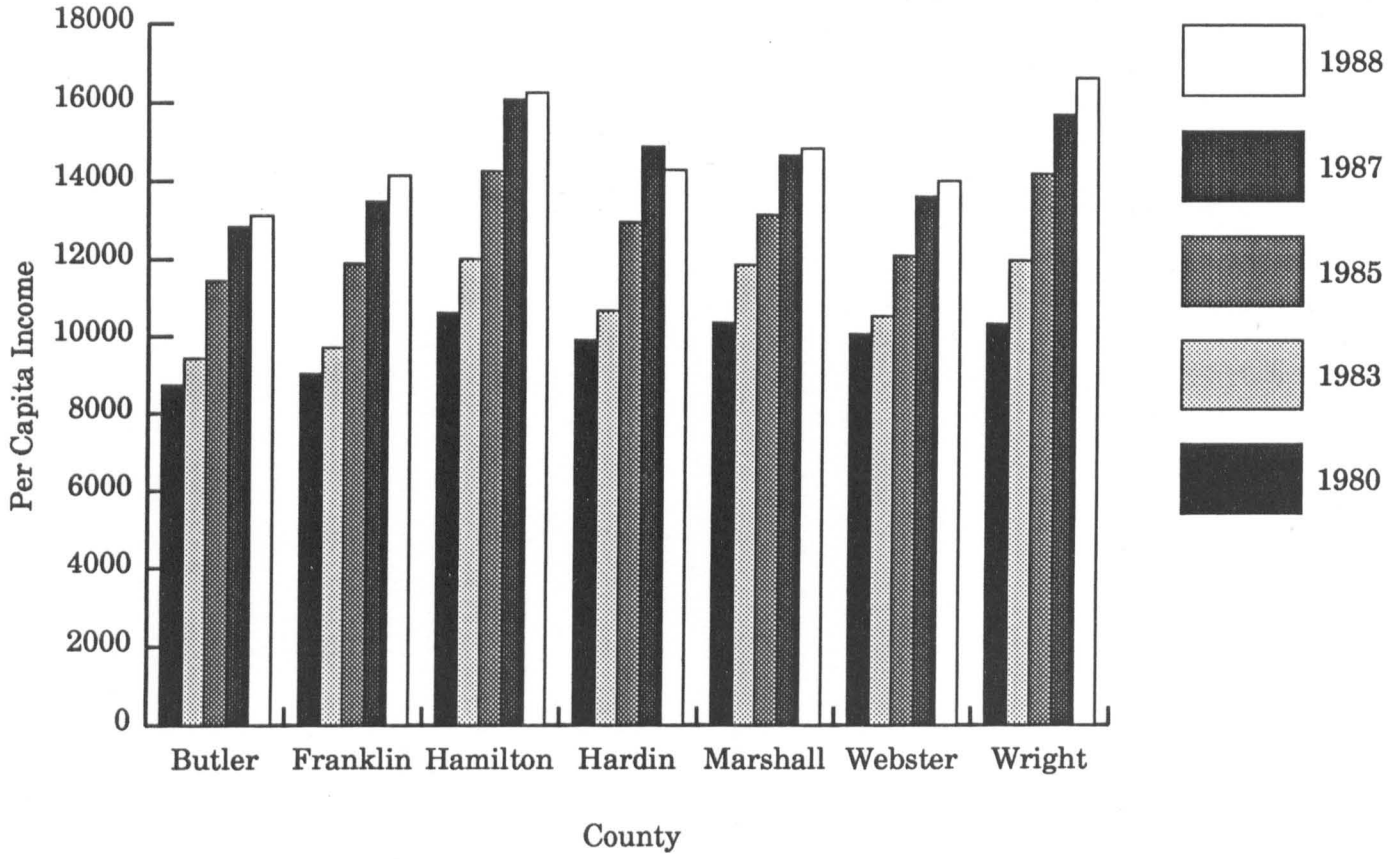

Figure 6. Per capita income, 1980-1988

Source: Goudy and Burke, 1989
(Current in $000)

Table 6. Change in per capita income 1980-1988

County	1980	1988	Number Change	Percent Change
Butler	8738	13124	+4386	+50.2
Franklin	9034	14153	+5119	+56.7
Hamilton	10640	16270	+5630	+52.9
Hardin	9914	14310	+4396	+44.3
Marshall	10377	14859	+4482	+43.2
Webster	10065	14017	+3952	+39.3
Wright	10335	16660	+6325	+61.2
Rural	48661	74517	+25856	+53.1
Urban	20442	28876	+8434	+41.3

Source: Goudy and Burke, 1989
(Current in $000)

although the number of unemployed increased from 1980-1983 it did not affect per capita income. These findings were not consistent with what was expected. One would think that if unemployment were up, total employment and per capita income would be down.

The findings indicated that there was an increase in demand on transfer payments from 1985-1987. Although the rural counties declined in fiscal dollars spent on ADC by 25.1 percent, the urban counties experienced a 23 percent increase in fiscal dollars spent on ADC (see Figure 7 and Table 7). A decline in fiscal dollars spent on ADC could be seen in 1988. A similar trend was also found with fiscal dollars spent on food stamps. Fiscal dollars spent on food stamps increased consistently from 1985-1987 (see Figure 8). More precisely, rural counties increased by 6.5 percent and the urban counties increased by 6.8 percent (see Table 8). In 1988, a decline in fiscal dollars spent on food stamps could be seen.

The economic conditions in the study area revealed that the effects of the farm crisis continued to exist well into 1985. Prior to the 1980s, main street establishments were flourishing which was reflected by the increase in retail sales from 1970 to 1980. Beginning in 1980, the number of unemployed increased and total employment declined. In 1985, an increase in demand on transfer payments was

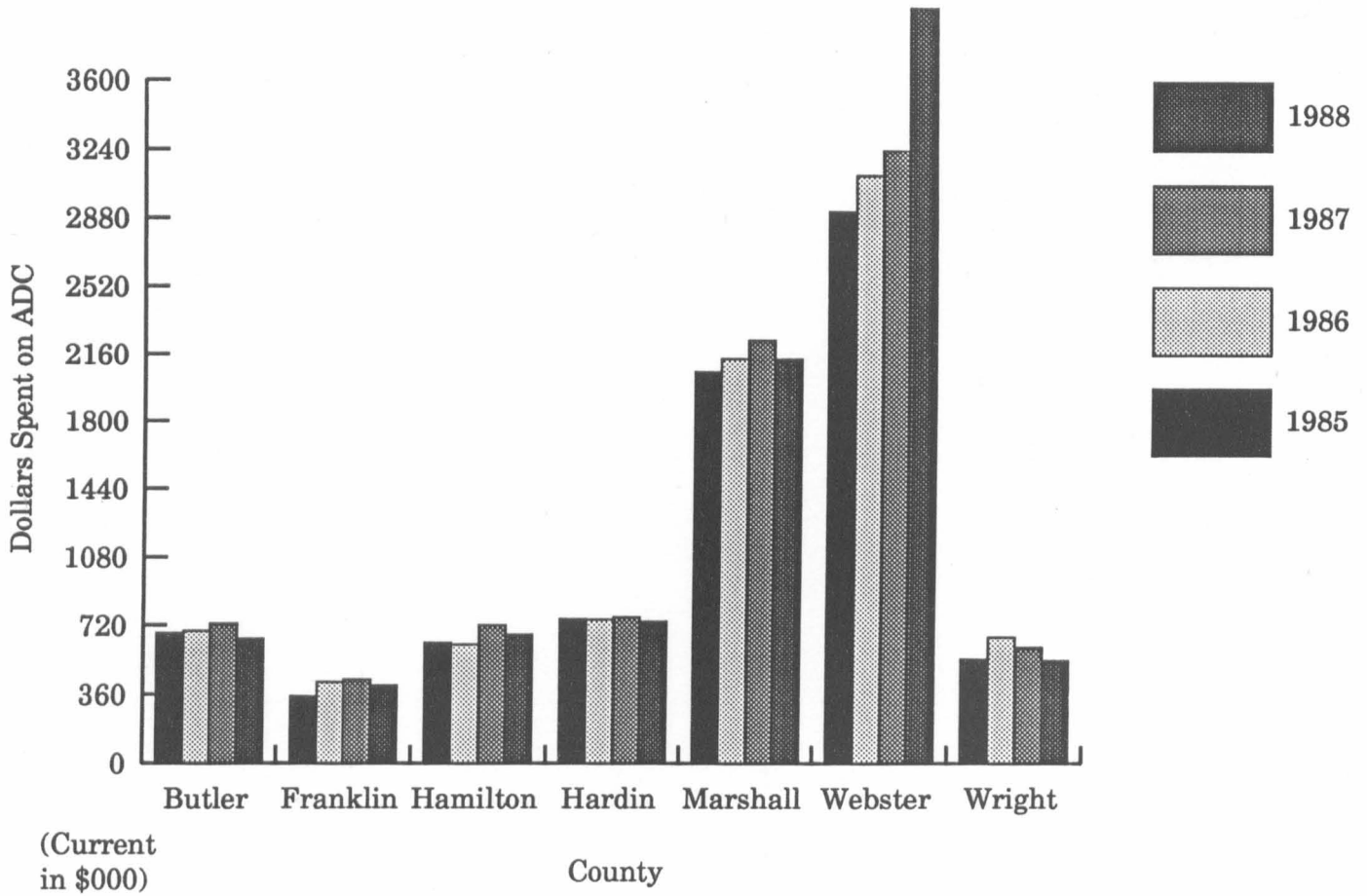

Figure 7. Fiscal dollars spent on ADC, 1985-1988

Source of Data: Iowa Department of Human Services, Bureau of Economic Analysis, Transfer Income Data

Table 7. Change in fiscal dollars spent on ADC 1985-1988

County	1985	1988	Number Change	Percent Change
Butler	682	652	-30	-4.4
Franklin	350	408	+58	+16.6
Hamilton	631	674	+43	+6.8
Hardin	754	740	-14	-1.9
Marshall	2068	2139	+71	+3.4
Webster	2919	3986	+1067	+36.6
Wright	549	542	-7	-1.3
Rural	4024	3016	-1008	-25.1
Urban	4987	6125	+1138	+22.8

Source of Data: Iowa Department of Human Services, Bureau of Economic Analysis, Transfer Income Data
(Current in $000)

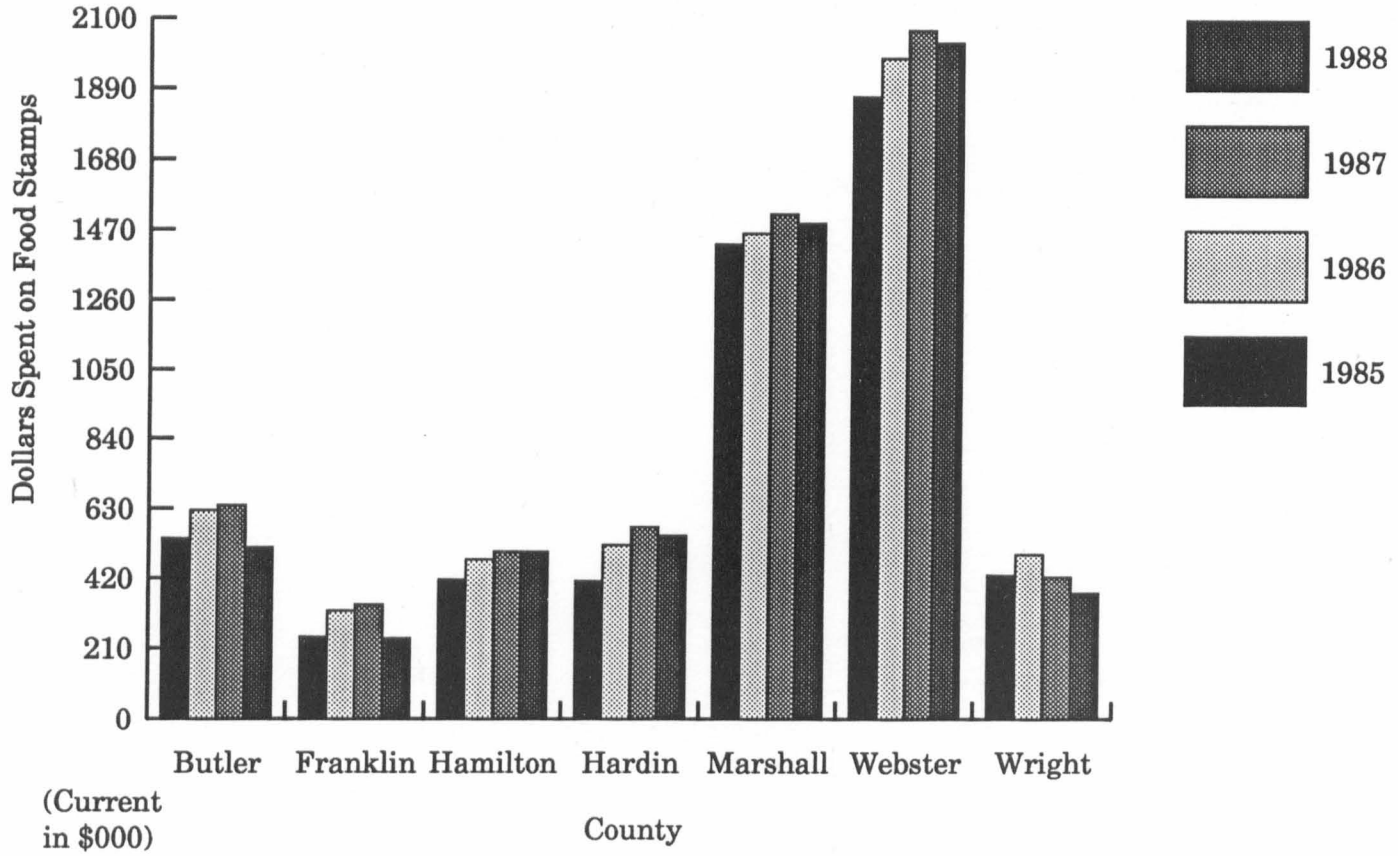

Figure 8. Fiscal dollars spent on food stamps, 1985-1988

Source of Data: Iowa Department of Human Services, Bureau of Economic Analysis, Transfer Income Data

Table 8. Fiscal dollars spent on food stamps 1985-1988

County	1985	1988	Number Change	Percent Change
Butler	542	513	-29	-5.4
Franklin	244	240	-4	-1.6
Hamilton	417	502	+85	+20.4
Hardin	413	550	+137	+33.2
Marshall	1430	1492	+62	+4.3
Webster	1870	2031	+161	+8.6
Wright	430	370	-53	-12.3
Rural	2049	2182	+133	+6.5
Urban	3300	3523	+223	+6.8

Source of Data: Iowa Department of Human Services, Bureau of Economic Analysis, Transfer Income Data
(Current in $000)

reflected by an increase in fiscal dollars spent on ADC and food stamps. Retail sales began to increase in 1983-1985 but began to fluctuate throughout 1988. In 1985, the number of unemployed began to decline and total employment began to increase in 1988. The demand on transfer payments began to lessen across all counties in 1988. These findings indicate that economic hardship in the region was becoming less prevalent.

The Consequences of Economic Hardship

Indicators of the consequences of economic hardship will be discussed according to the following order: (1) social variables--total population, number of live births, and net migration; (2) mental health variables-number of divorces, suicides, and number of mental health admissions. The initial social variable to be discussed is total population. The findings indicated that total population declined across all counties except for Marshall (see Figure 9) during 1970-1988. The only exception was Marshall County that experienced a modest 1.4 percent increase in total population from 1970-1980 (see Table 9 and Table 10).

The findings show that there was a decrease in the number of live births from 1970-1978 in three of the rural counties and in both urban counties (see Figure 10). Rural counties experienced the lowest decline in the number of live births at 4.2 percent and urban counties experienced

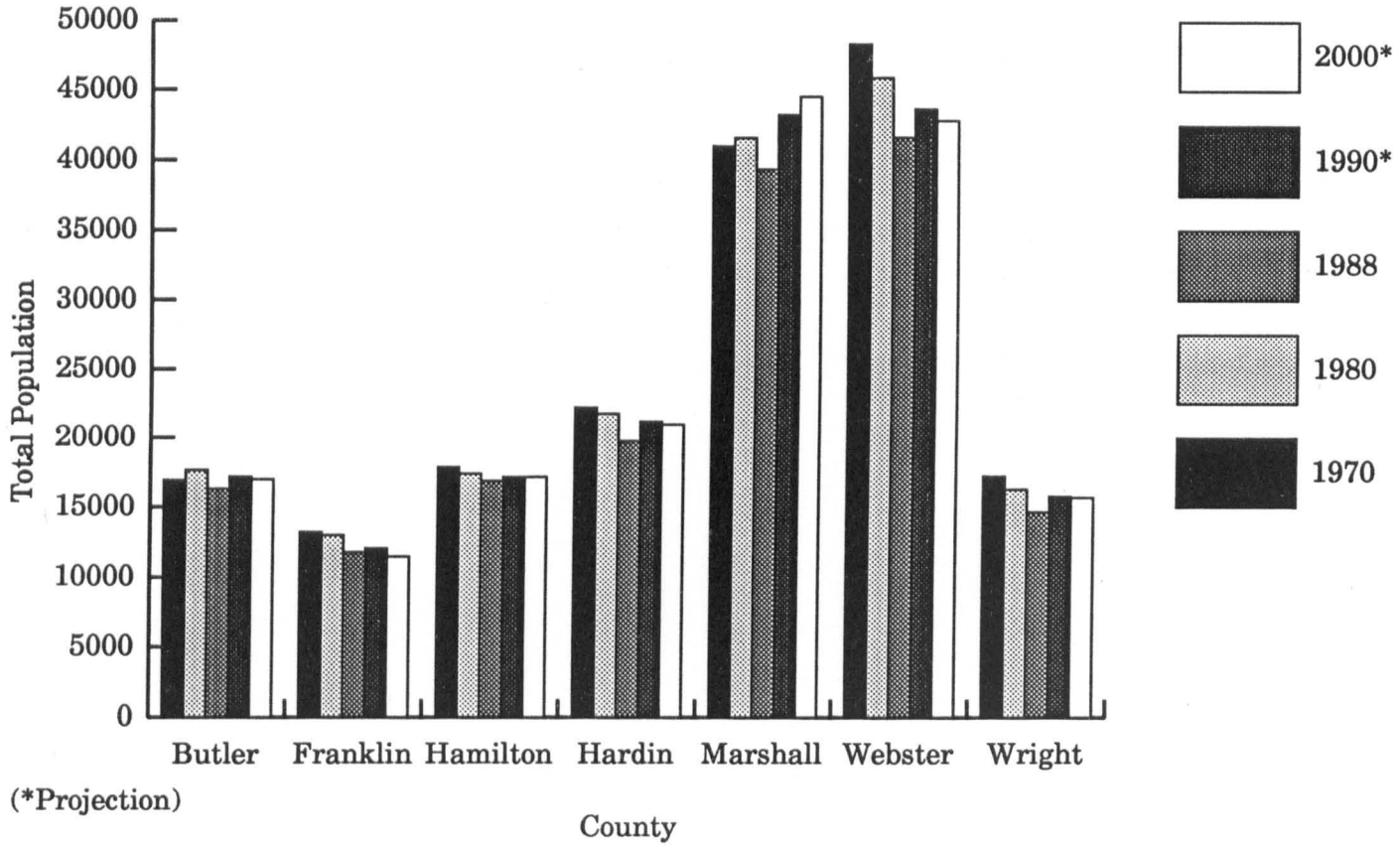

Figure 9. Total population, 1970-2000

Source of Data: U.S. Department of Commerce, Bureau of Census, Social and Economic Statistics Administration, Detailed Characteristics of Iowa, U.S. Census of Population (1960, 1970, 1980); *Goudy and Burke, 1989

Table 9. Change in total population 1970-1980

County	1970	1980	Number Change	Percent Change
Butler	16953	17668	-715	-4.2
Franklin	13255	13036	-219	-1.7
Hamilton	17862	17400	-462	-2.6
Hardin	22248	21776	-472	-2.1
Marshall	41076	41652	+576	+1.4
Webster	48391	45953	-2439	-5.3
Wright	17294	16319	-975	-5.6
Rural	88133	86661	-1472	-1.7
Urban	89467	87605	-1862	-2.1

Source of Data: U.S. Department of Commerce, Bureau of Census, Social and Economic Statistics Administration, Detailed Characteristics of Iowa, U.S. Census of Population (1970, 1982); Goudy and Burke, 1989

Table 10. Change in total population 1980-1988

County	1980	1988	Number Change	Percent Change
Butler	17668	16300	-1368	-7.7
Franklin	13036	11800	-1236	-9.5
Hamilton	17400	16900	-500	-2.9
Hardin	21776	19800	-1976	-9.1
Marshall	41652	39400	-2252	-5.4
Webster	45953	41700	-4253	9.3
Wright	16319	14700	-1619	-9.9
Rural	86661	79500	-7161	-8.3
Urban	87605	81100	-6505	-7.4

Source of Data: U.S. Department of Commerce, Bureau of Census, Social and Economic Statistics Administration, Detailed Characteristics of Iowa, U.S. Census of Population (1982, 1988); *Goudy and Burke, 1989.

*Projection

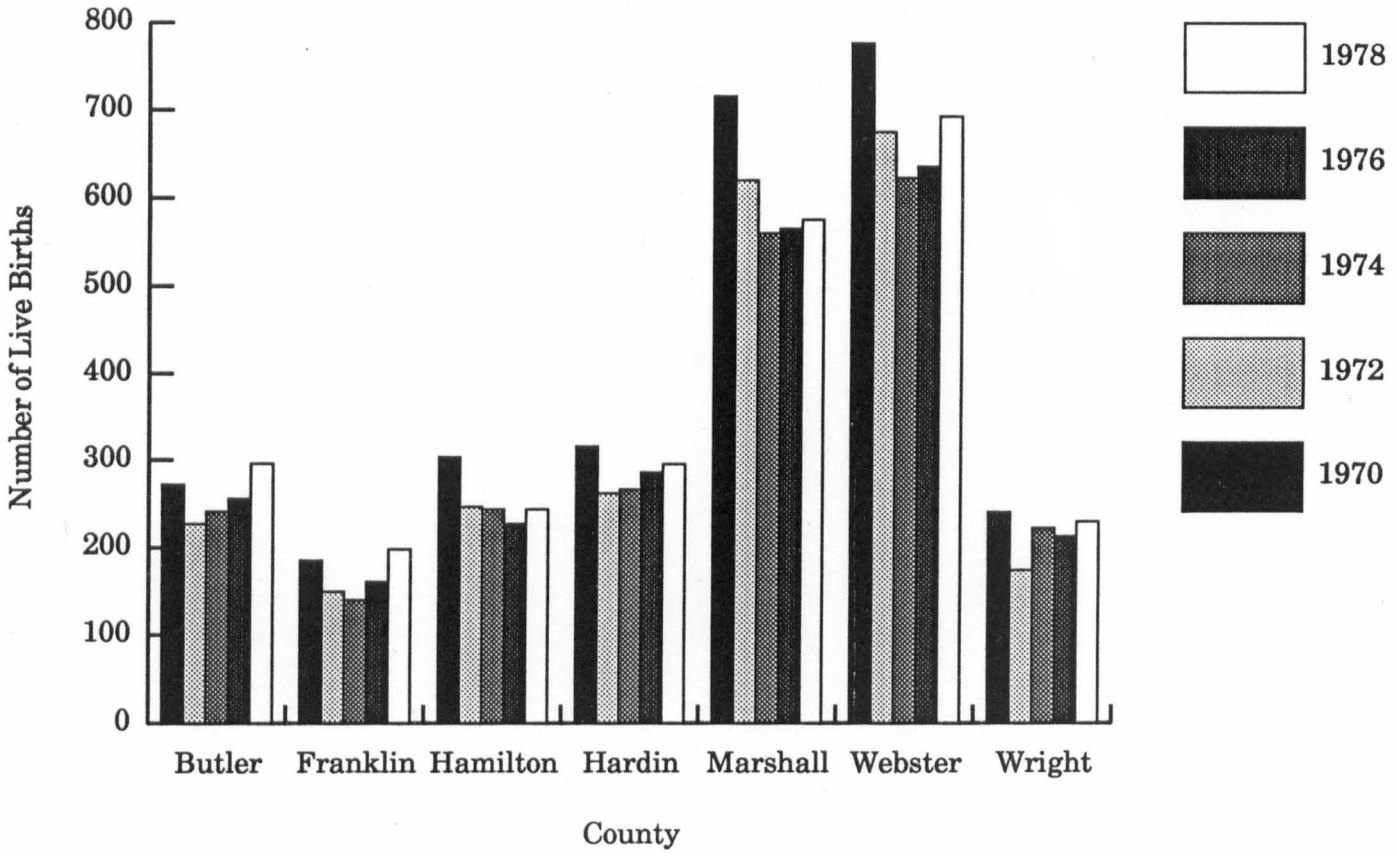

Figure 10. Number of live births, 1970-1978
Source of Data: Goudy and Burke, 1989

Table 11. Change in the number of live births 1970-1978

County	1970	1978	Number Change	Percent Change
Butler	272	296	+24	+8.8
Franklin	185	198	+13	+7.0
Hamilton	303	243	-60	-19.8
Hardin	316	295	-21	-6.7
Marshall	716	576	-140	-19.6
Webster	777	693	-84	-10.8
Wright	240	229	-11	-4.6
Rural	1316	1261	-55	-4.2
Urban	1493	1269	-224	-15.0

Source of Data: Goudy and Burke, 1989

the highest decline at 15 percent between 1970 and 1978 (see Table 11). In 1980, the number of live births began to increase capping a decade-long period of economic prosperity (see Figure 11). Following the 1979-1980 increase in the number of live births, the upward trend reversed and continued to decline across all seven counties through 1988. During the farm crisis (1980-88) the number of live births declined by 31.6 percent in rural counties and by 26.7 percent in the urban counties (see Table 12).

Out-migration increased from 1980-1987 (see Figure 12). Marshall county experienced an influx of population in 1980-1981 but continued to increase in out-migration until 1986/1987. Webster County experienced the highest total net outmigration at -5680, whereas Hamilton County experienced the lowest total net value at -1400 (see Table 13). Total net-migration values were higher for the urban counties. The increase in out-migration from 1980-1987 may account for the decrease in the number of births from 1980-1987. The increase in out-migration was also reflected by the decline in total population during the farm crisis. This is a primary example of the ripple effect.

The findings indicated that the number of divorces increased from 1980-1983 in Butler and Hamilton counties (see Figure 13). Overall, the study area decreased in the number of divorces during the farm crisis. The divorce rate

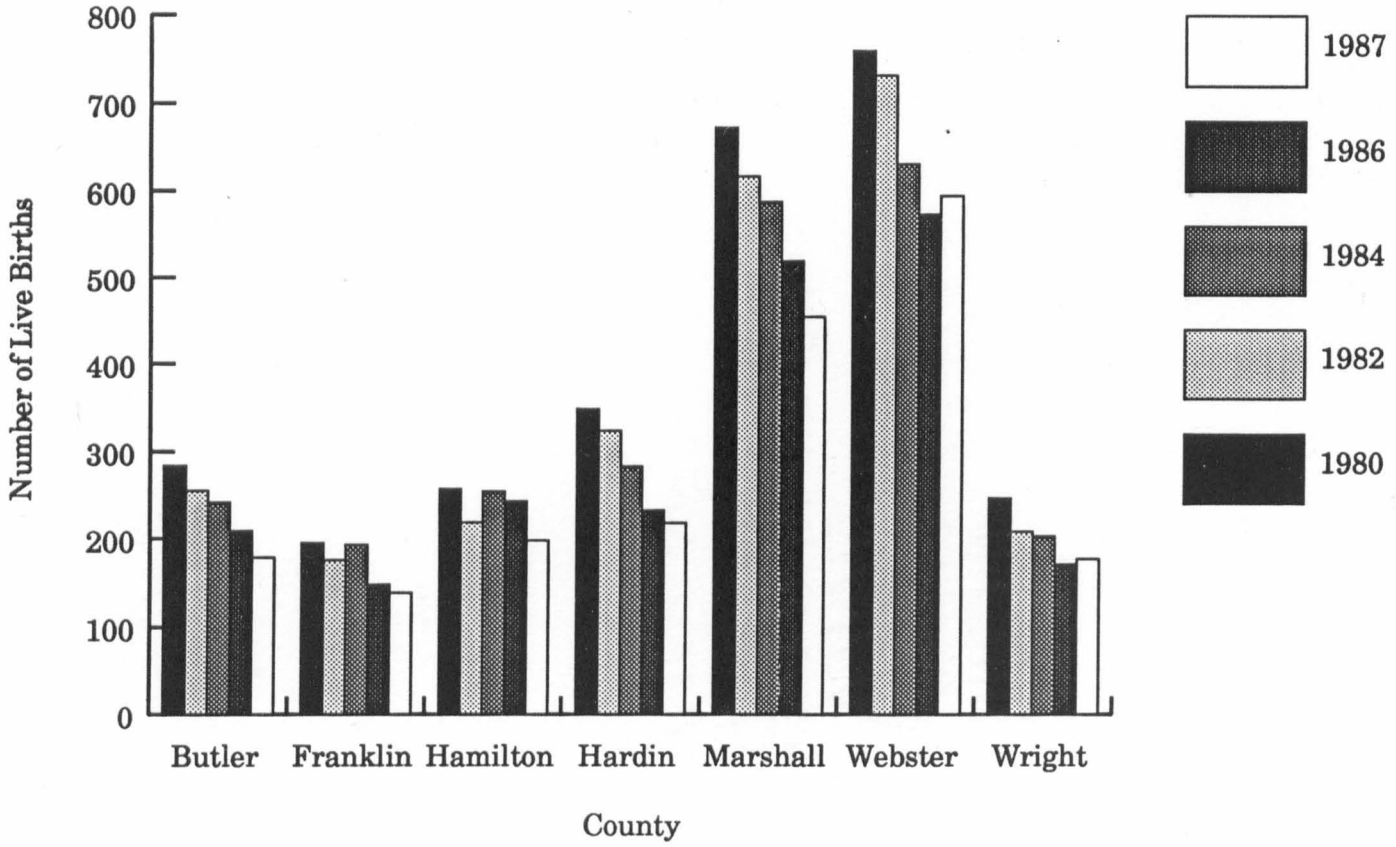

Figure 11. Number of live births, 1980-1987
Source: Goudy and Burke, 1989

Table 12. Change in the number of live births 1980-1987

County	1980	1987	Number Change	Percent Change
Butler	284	179	-105	-40.0
Franklin	195	139	-56	-28.7
Hamilton	257	198	-59	-23.0
Hardin	348	218	-130	-37.4
Marshall	673	455	-218	-32.4
Webster	760	495	-265	-34.9
Wright	247	177	-70	-28.3
Rural	1331	911	-420	-31.6
Urban	1433	1050	-383	-26.7

Source: Goudy and Burke, 1989

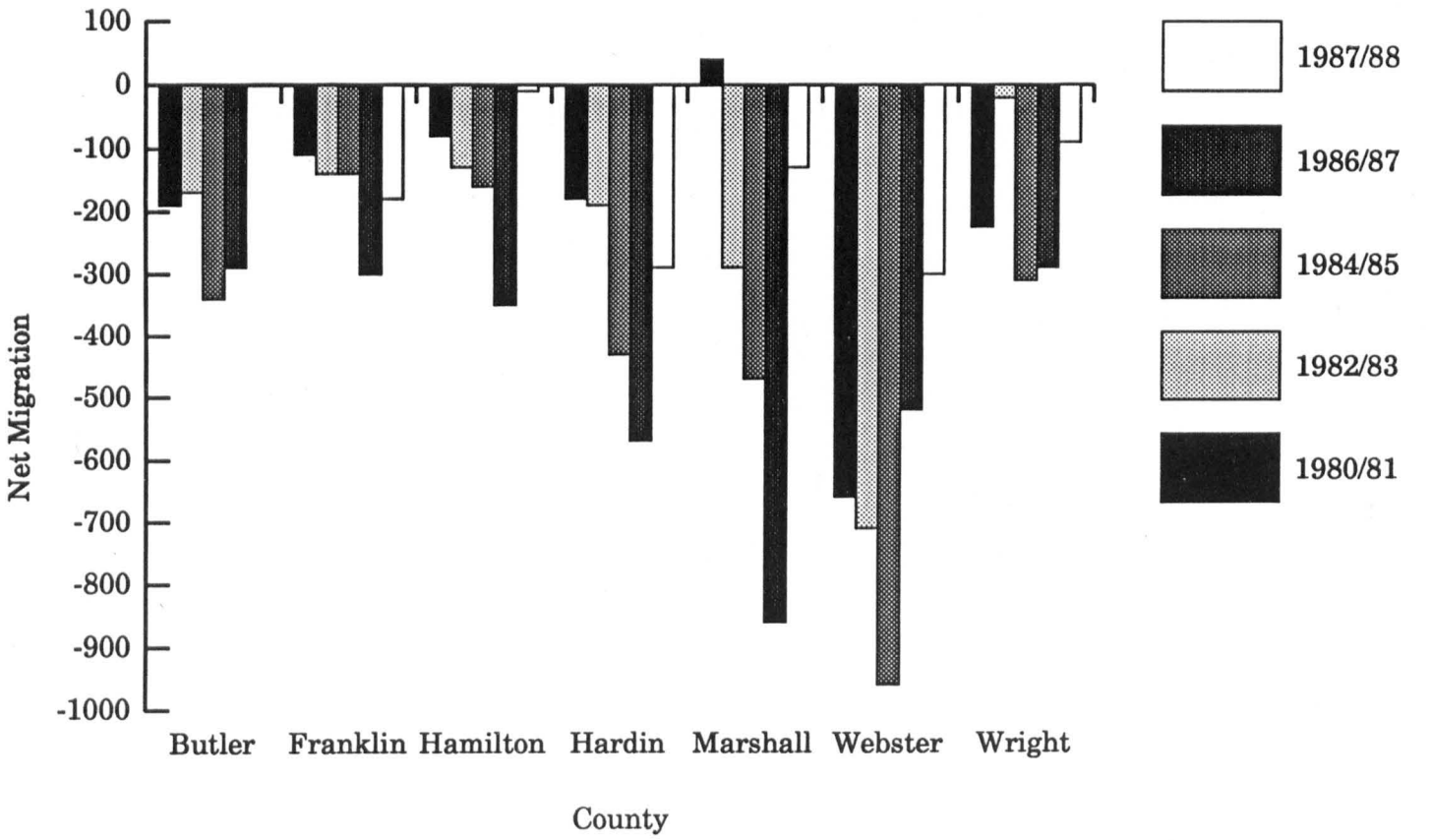

Figure 12. Net migration, 1980-1988

Source of Data: Current Population, Estimates of the Population of Iowa Counties (per 1,000 population)

Table 13. Net migration 1980-1984

County	1980/81	1981/82	1982/83	1983/84
Butler	-190	-170	-170	-60
Franklin	-110	-150	-140	-140
Hamilton	-80	-260	-130	-260
Hardin	-180	-70	-190	-40
Marshall	40	-120	-290	-580
Webster	-660	-720	-710	-570
Wright	-225	-110	-20	-20
Region Total	-1405	-1600	-1650	-1590

Source of Data: Current Population, Estimates of the Population of Iowa Counties
(per 1,000 population)

Table 13. Continued

County	84/85	85/86	86/87	87/88	*Tot. Net
Butler	-340	-510	-290	0	-1743
Franklin	-140	-330	-300	-180	-1490
Hamilton	-160	-150	-350	-10	-1400
Hardin	-430	-600	-570	-290	-2290
Marshall	-740	-820	-860	-130	-3500
Webster	-960	-1240	-520	-300	-5680
Wright	-310	-90	-290	-90	-1690
Region Total	-3080	-3740	-3180	-1000	-17245

Source of Data: Current Population, Estimates of the Population of Iowa Counties
(per 1,000 population)

*Total net

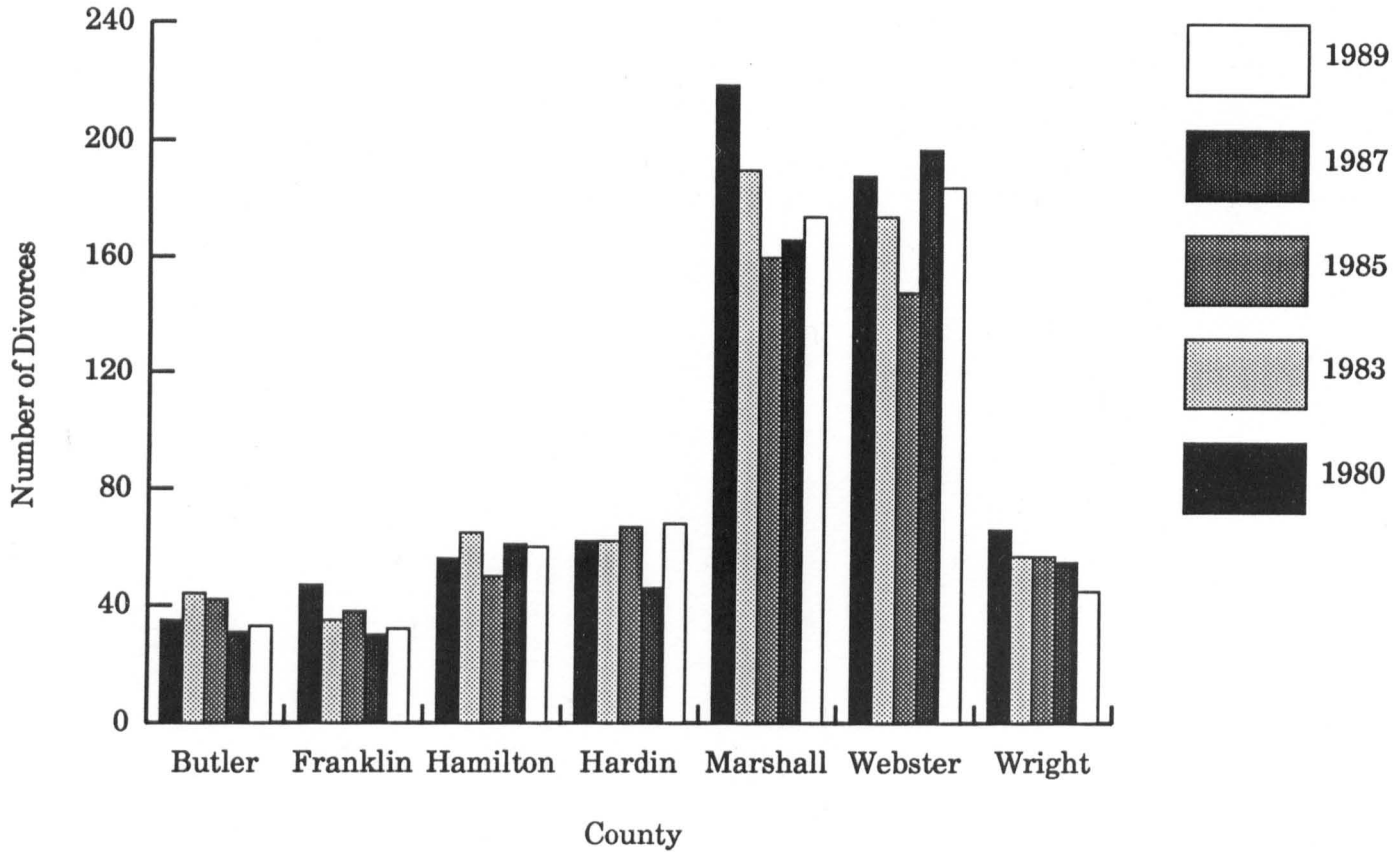

Figure 13. Number of divorces, 1980-1989
Source: Goudy and Burke, 1989

Table 13. Change in the number of divorces 1980-1989

County	1980	1989	Number Change	Percent Change
Butler	35	33	-2	-5.7
Franklin	47	32	-15	-31.9
Hamilton	56	60	+4	+7.1
Hardin	62	68	+6	+9.7
Marshall	219	174	-45	-20.6
Webster	188	184	-4	-2.1
Wright	66	45	-21	-31.8
Rural	266	238	-28	-10.5
Urban	407	358	-49	-12.0

Source: Goudy and Burke, 1989

in the rural counties decreased by 10.5 percent compared to a 12 percent decrease in the urban counties (see Table 13) (see Table 13). It should also be noted that the urban counties increased in the number of divorces from 1985-1989. After 1985, the number of divorces in the rural counties began to fluctuate.

The rate of suicide fluctuated from 1976-1987. In Butler, Franklin, and Hamilton the rate of suicide peaked (reached its highest level) in 1987 (see Figure 14). During the farm crisis, the rate of suicide was higher in the rural counties at 150.3 percent compared to 84.3 percent for urban counties (see Table 14). The findings indicated a similar trend with the number of mental health admissions from 1980-1988. The number of mental health admissions peaked in 1988 for four of the counties (see Figure 15). Two counties, Butler and Franklin, peaked in 1980. The findings also indicated that the number mental health admissions sharply decreased in 1985 in all the counties except for Butler, Franklin, and Wright. During the farm crisis, mental health admissions increased by 29 in the rural counties and by 34 in the urban counties (see Table 15). These findings suggest that the study population experienced an increase in mental health problems during the farm crisis.

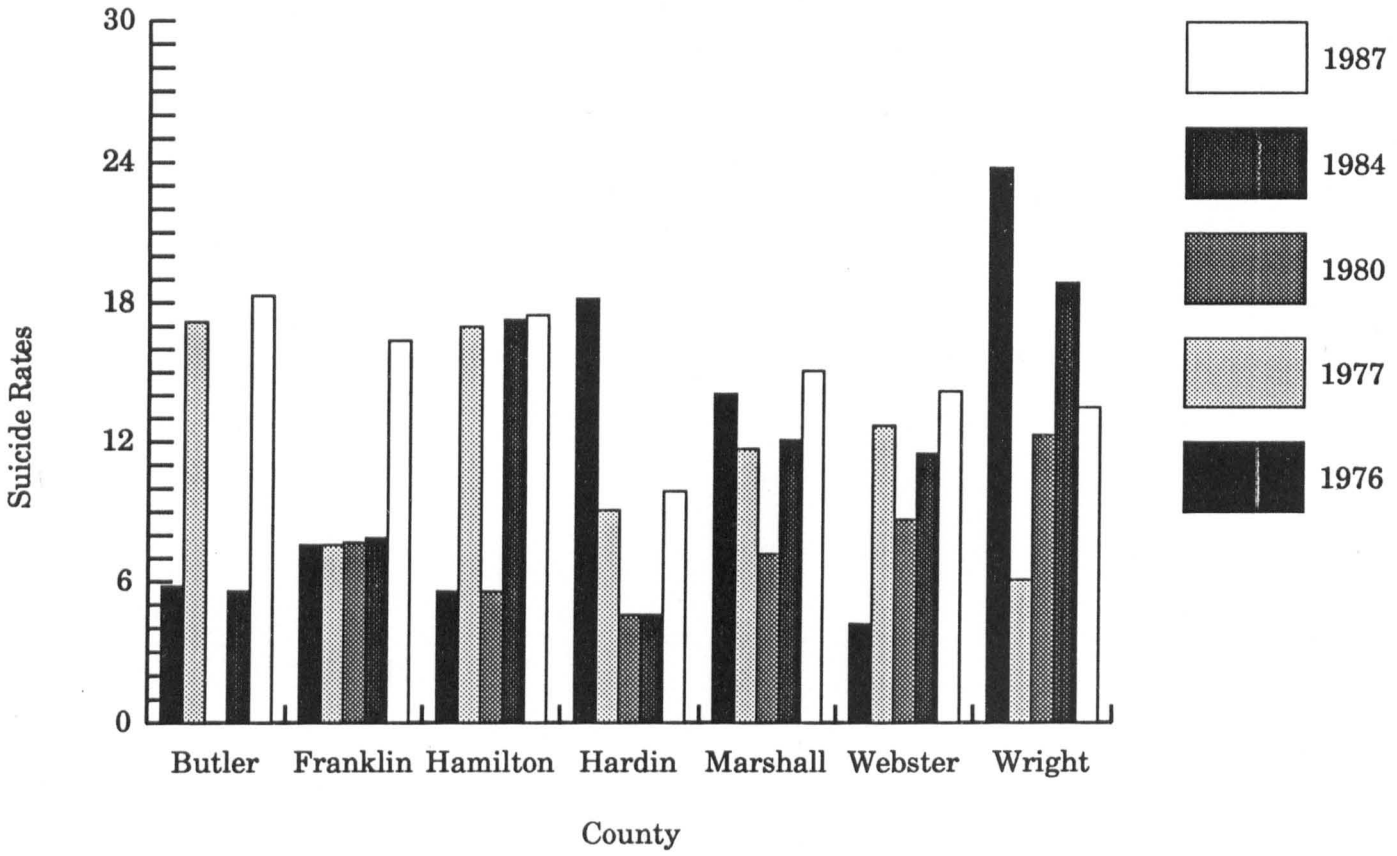

Figure 14. Suicide rates, 1976-1987

Source of Data: Iowa Department of Human Services, Vital Statistics
(per 1,000 population)

Table 14. Change in suicide rates 1980-1987

County	1980	1987	Number Change	Percent Change
Butler	0.0	18.3	+18.3	+100.0
Franklin	7.7	16.4	+8.7	+112.9
Hamilton	5.6	17.5	-11.9	-212.5
Hardin	4.6	9.9	+5.3	+115.2
Marshall	7.2	15.1	+7.9	+109.7
Webster	8.7	14.2	+5.5	+63.2
Wright	12.3	13.5	+1.2	+9.8
Rural	30.2	75.6	+45.4	+150.3
Urban	15.9	29.3	+13.4	+84.3

Source of Data: Iowa Department of Human Services, Vital Statistics
(per 1,000 population)

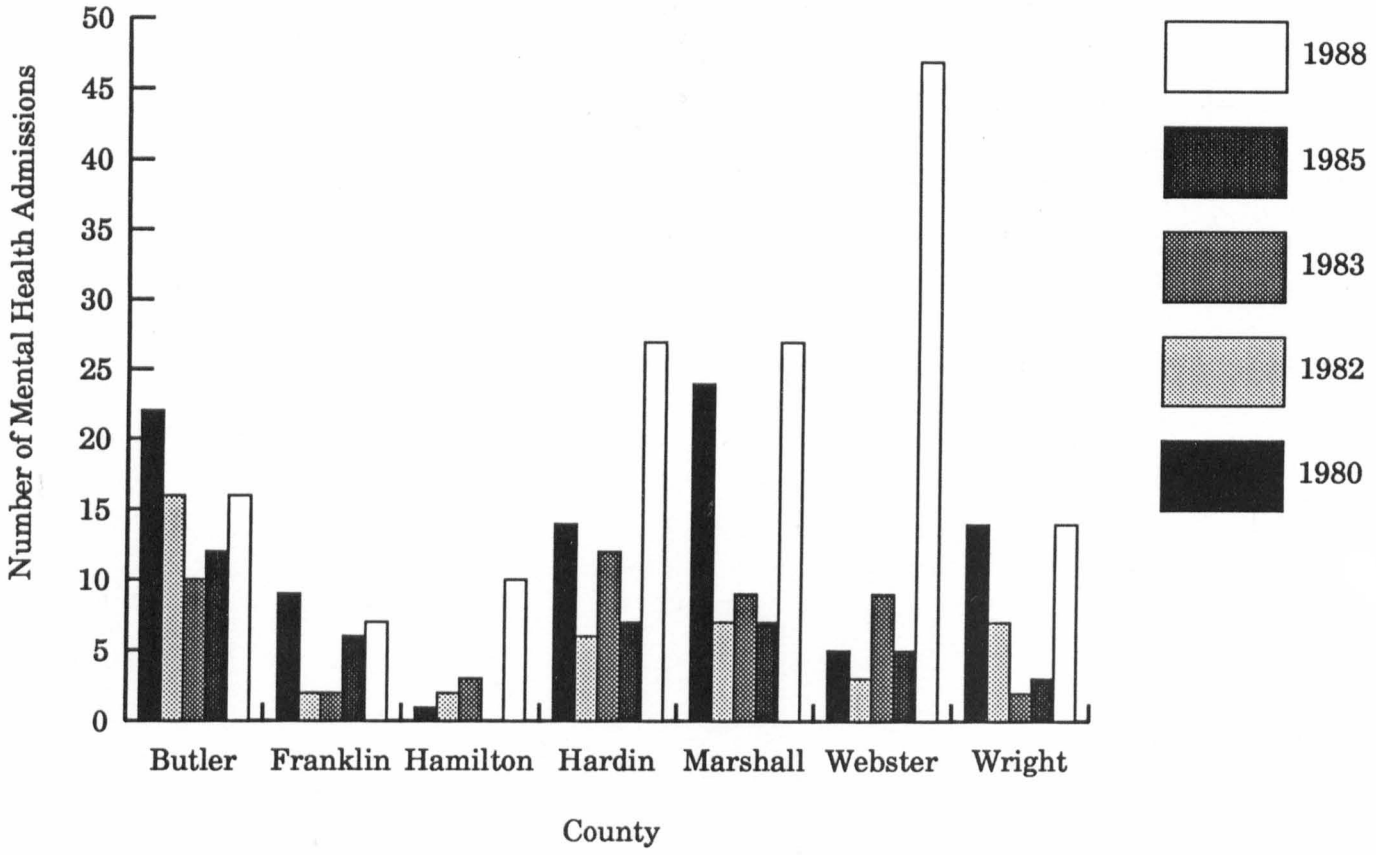

Figure 15. Number of mental health admissions, 1980-1988

Source of Data: Iowa Department of Human Services, Bureau of Management Information

Table 15. Change in the number of mental health admissions 1980-1988

County	1980	1988	Number Change
Butler	22	16	+6
Franklin	9	7	-2
Hamilton	1	10	+9
Hardin	14	27	+13
Marshall	24	27	+3
Webster	5	47	+42
Wright	14	14	0
Rural	45	74	+29
Urban	40	74	+34

Source: Iowa Department of Human Services, Bureau of Management Information

The findings indicated that there was a decrease in the number of farms from 1974-1987 across all seven counties (see Figure 16). Although Webster County indicated an increase in the number of farms in 1982, this was followed by a decrease in the number of farms in 1987. During the farm crisis, the number of farms declined. The number of farms in rural counties declined by 14.9 percent and urban counties by 8.1 percent (see Table 16). This may be due to the fact that there are more farms located in rural counties. The decrease in the number of farms may account for the increase in the number of unemployed in 1980-1983, decline in total employment from 1980-1987, the peaks in suicide in 1982 and 1987, and the increase in mental health admissions in 1988.

The average size of farms increased from 1974-1987 (see Figure 17). During the farm crisis, farm size in the rural counties increased by 7.2 percent and the urban counties by 5.9 percent (see Table 17). Wright County experienced the greatest increase in the average size of farms during the farm crisis at 19.6 percent. These findings reflected the loss of smaller family farms. It was pointed out in the literature review, that the banks had foreclosed on many of the smaller farms. In order to keep up with the changing economy, the small-middle size farms had to increase in size and productivity to compete.

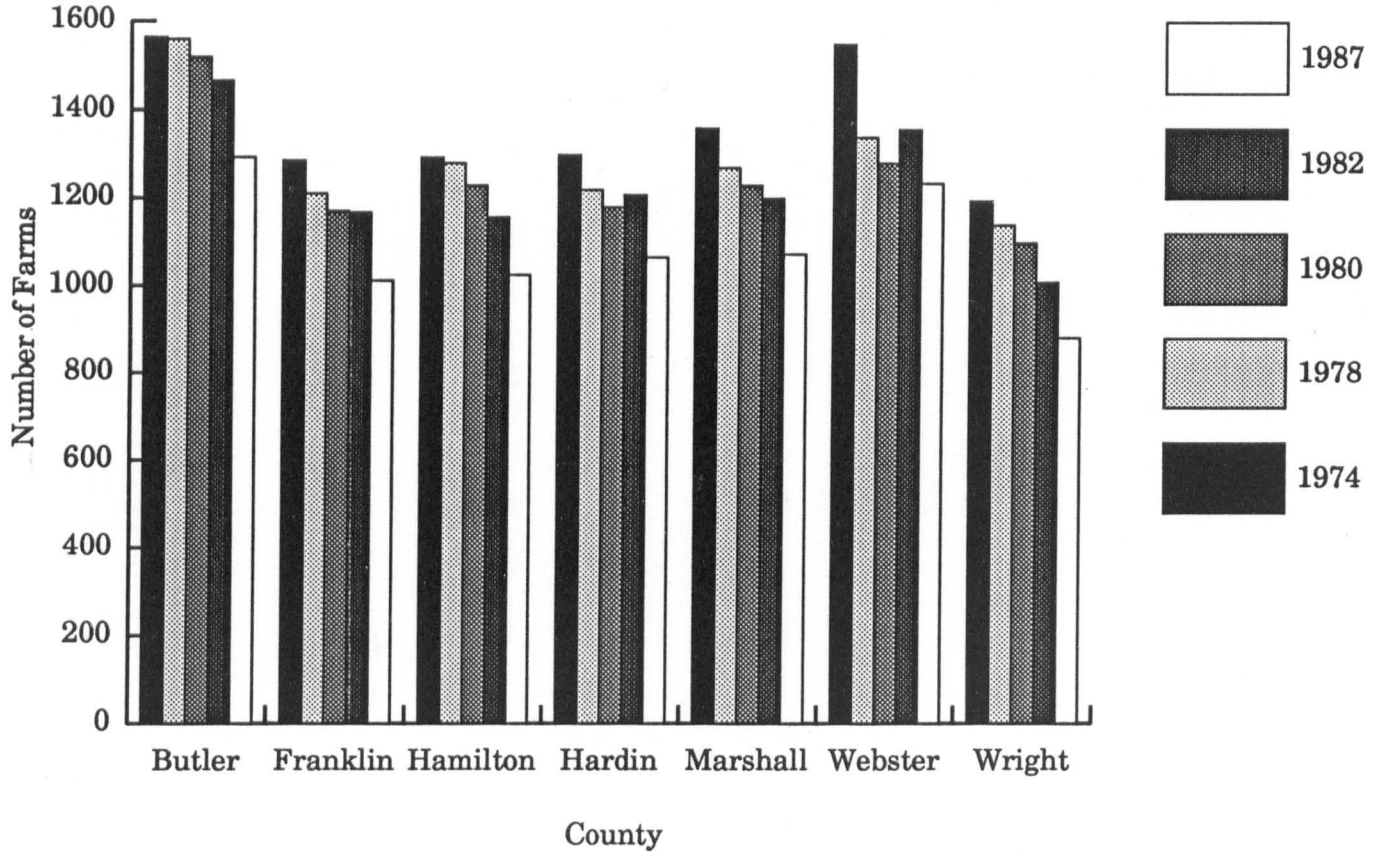

Figure 16. Number of farms, 1974-1987

Source of Data: U.S. Department of Commerce, Bureau of the Census, Census of Agriculture (1974, 1978, 1982, 1987)

Table 16. Change in the number of farms 1980-1987

County	1980	1987	Number Change	Percent Change
Butler	1520	1294	-226	-14.9
Franklin	1170	1012	-158	-13.5
Hamilton	1230	1026	-204	-16.6
Hardin	1180	1065	-115	-9.7
Marshall	1230	1073	-157	-12.8
Webster	1280	1235	+45	+3.5
Wright	1100	882	-218	-19.8
Rural	6200	5279	-921	-14.9
Urban	2510	2308	-202	-8.1

Source of Data: U.S. Department of Commerce, Bureau of the Census, Census of Agriculture (1982 and 1987)

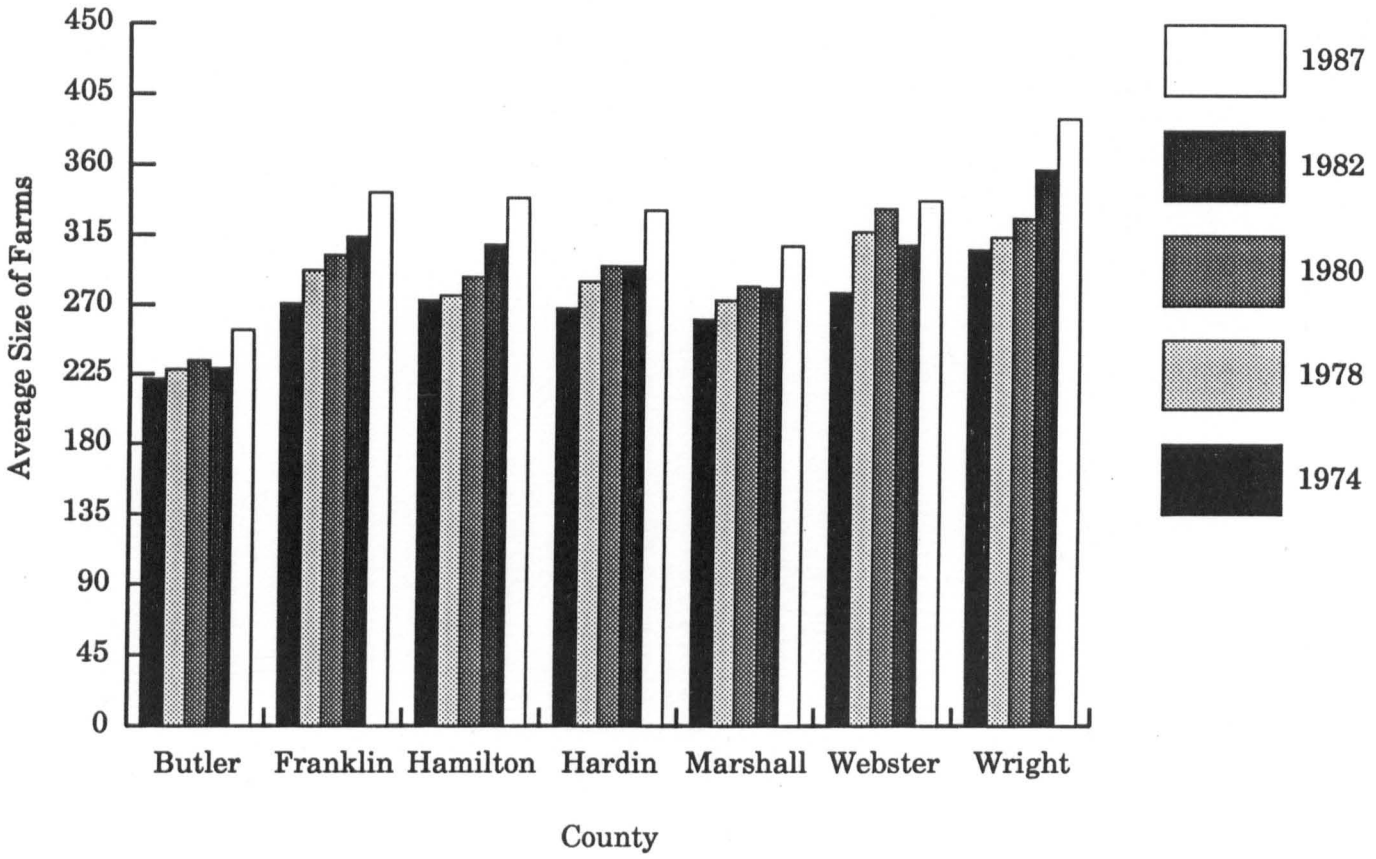

Figure 17. Average size of farms, 1974-1987

Source of Data: U.S. Department of Commerce, Bureau of the Census, Census of Agriculture (1974, 1978, 1982, 1987)

Table 17. Change in the average size of farms 1980-1987

County	1980	1987	Number	Percent
Butler	234	254	+20	+8.6
Franklin	302	342	+40	+13.3
Hamilton	288	339	+51	+17.7
Hardin	295	331	+36	+12.2
Marshall	282	308	+26	+9.2
Webster	332	337	+5	+1.5
Wright	326	390	+64	+19.6
Rural	299	311	+21	+7.2
Urban	304	322	+18	+5.9

Source of Data: U.S. Department of Commerce, Bureau of the Census, Census of Agriculture (1982 and 1987)

The consequences of economic hardship have been comprehensive. Total population has continued to decline from 1970-1988. This decline in total population may account for the decline in the number of live births from 1980-1987 and the increase in out-migration from 1980-1987. Although, the number of divorces declined from 1983-1985 it fluctuated until 1989. The rate of suicides and the number of mental health admissions peaked in 1987/1988. These findings indicate that the region has continued to struggle with economic hardship throughout the decade. More recently, the region has shown indications of being on the road to a recovery.

Rural vs. Urban Differences

The findings of this case study reveal the following discrepancies in terms of rural and urban differentials. The major differences are as follows: Measures of economic hardship (1) urban counties experienced greater unemployment, this was reflected by the increase in the number of unemployed at 24.6 percent for urban counties and 8.3 percent for rural counties (see Table 3); (2) the amount of fiscal dollars spent on ADC increased by 22.8 percent in urban counties but decreased by 25.1 percent for rural counties (see Table 7); (3) the number of live births declined at a higher level in urban counties at 15 percent compared to 4.2 percent in rural counties during the

pre-crisis period (see Table 11); consequences of the farm crisis; (4) suicide rates were higher for rural counties at 105.3 percent than urban counties at 84.3 percent, during the farm crisis (see Table 14); (5) mental health admissions were higher for the urban counties at 85 percent compared to 64.4 percent for rural counties (see Table 15); and (6) the number of farms declined more in rural counties at 14.9 percent than in urban counties at 8.1 percent (see Table 16). Urban counties have higher total populations than rural counties. Therefore, this might account for the greater number of unemployed, more fiscal dollars spent on ADC, and the higher demand placed on mental health facilities in urban counties. There are more farms located in rural than in urban counties and the average size of farms in urban counties is greater than in rural counties. These findings help clarify why the number of farms declined more in rural counties than in urban counties. The higher suicide rates in the rural counties is an indicator of the continued emotional toll of the farm crisis.

CHAPTER V. CONCLUSIONS AND IMPLICATIONS

Summary

This case study documents the "ripple-effect" of the farm crisis. This has been demonstrated by the precipitous decline in total population starting as early as 1970 (continuing throughout the 1980s), accompanied by an increase in the number of unemployed in 1980-1985. The increase in the number of unemployed may account for the increase in out-migration from 1980-1987. Retail sales declined in the rural counties from 1983-1989. This was likely prompted by the rising level of out-migration. Economic hardship was also reflected by the decrease in the number of live births from 1980-1987. This indicated that couples were postponing having children. Local relief agencies continued to experience stress until 1988 (by 1988 fiscal dollars spent on ADC and food stamps had declined). The mental health sector fluctuated throughout 1988. The number of divorces declined from 1980-1985. The rate of suicide and the number of mental health admissions fluctuated from 1985-1988 (although the rate of suicide was higher in rural counties than in urban counties from 1980-1987). This indicated that the region is continuing to experience emotional distress which may be related to economic hardship experienced by the region.

Economic hardship has been reflected by the continuous decline in the number of farms from 1970-1988. The life-long tradition of farming in Iowa, that has represented the livelihood of many has broken down. The proportion of larger farms have also increased from 1970-1987. This finding paints a glum picture of farming for small family farms. The increased proportion of larger farms may be reflective of those larger farm owners buying out the smaller farms (those small farms whose banks had not foreclosed on their property or filed bankruptcy).

The findings also indicated that the study region reflected evidence of being on the road to a recovery. This is supported by the continued increase in per capita income from 1970-1988. After 1985, the number of unemployed began to decline and employment began to increase in 1988. In 1988, fiscal dollars spent on both ADC and food stamps declined. In addition, out-migration began to decline in 1987/1988.

Significance

The purpose of this study was to document the socioeconomic (demographic) conditions in five Iowa agriculturally dependent and two urban counties during the farm crisis of the 1980s. The farm crisis of the 1980s has been described as the most wrenching financial adjustment in half of a century. Other researchers have stated that

since the 1930s no other socioeconomic factor gripped rural America as much as the effects of the farm crisis of the 1980s.

The farm crisis not only affected farm families in Iowa but the entire rural economy, thereby forcing the farming community (the state) to deal with social change. Adaptation to change can be very difficult. Therefore, a comprehensive design of intervention strategies and/or approaches are needed for the purpose of planning intervention services for this at-risk population. It should be noted that mobilization procedures began as early as late 1984 when lenders and borrowers began to confront each other, and farm advocates began to build a grass-root movement to halt foreclosures and bankruptcy (Friedberger, 1988). The grass-root movement helped facilitate the assistance of the Iowa Cooperative Extension Service to plan a mobilization of resources to help farmers. The program, known as ASSIST, offered farmers a computer-based financial analysis package beginning in February 1985. Iowa State University also hosted a rally at the Ames campus, which, while giving the issue of farm economic stress maximum national exposure, also eased some of the tensions generated in the state over the failure of the agricultural establishment to recognize the symptoms of crisis earlier (Friedberger, 1988). A recovery of the farm crisis was

evident as early as 1987. There still remained a need to evaluate the progress of recovery from the farm crisis of the 1980s. A first step toward achieving this goal was to codify the impact of the farm crisis on individuals and families in Iowa in the 1980s. A demographics approach was utilized in order to determine how the farm crisis affected rural agriculturally dependent counties. It is hoped that this case study will provide a basic foundation from which actions can be taken that will expedite the recovery process.

This case study revealed that the farm crisis influenced the study population in several ways. The predicted consequences of economic hardship (indicators of the measures of economic hardship and the indicators of the consequences of economic hardship) were found evident with a few exceptions. The exceptions are as follows: (1) retail sales were expected to decline-retail sales declined in rural counties but increased in the urban counties during the farm crisis (this finding indicated that the farm crisis may have had a greater impact on rural rather than urban counties); (2) unemployment was expected to increase-unemployment increased in both rural and urban counties from 1980-1983 but declined steadily after 1985 (this finding indicated that the severity of the farm crisis is becoming less prevalent); (3) per capita income was expected to

decline-per capita income increased from 1970-1988 (this finding may be reflective of the decline in unemployment, it should be noted that although per capita income increased, the amount of increase declined during the farm crisis); (4) number of divorces were expected to increase-the number of divorces fluctuated prior to 1985 and declined after 1985 (this instability may be evident of the study population's process of adjustment to socioeconomic change). The decline in the number of divorces may be evidence that the study population is entering the recovery phase of the farm crisis.

The theory of demographic change and response emphasizes that people respond to social and/or economic change only when it affects their lives. The farm crisis caused many of the small farm owners to lose their farms and migrate to other areas for employment. This is reflected in increased levels of out-migration and unemployment and decreased levels of total employment and total population. On the other hand, the farm crisis appears to have had a minimal effect on some residents in the study area. This is reflected by a stable improved status of both social and economic conditions. For example, the study population showed increased levels of per capita income during the farm crisis, the number of divorces declined and fiscal dollars spent on ADC declined in rural counties. This study

examines how people responded to the farm crisis from a demographic perspective. This study did not attempt to explain why some people were victimized by the farm crisis and others were apparently untouched. Future research on the distributional impacts of the farm crisis should be conducted.

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APPENDIX

Table 1. Retail sales 1971-1975

County	1971	1972	1973	1974	1975
Butler	23715	25390	28263	33636	40546
Franklin	25140	26709	31160	36935	40546
Hamilton	25140	26709	31160	64525	78632
Hardin	50799	52207	55898	64525	78632
Marshall	94759	100038	111022	125487	144335
Webster	124204	128379	141365	158166	186821
Wright	33547	37830	39821	48059	57946
Region Total	377304	397262	438689	503743	591612

Source: Iowa Retail Sales and Use Tax Report. Ames: Iowa Department of Revenue and Finance and Iowa State University Extension Service.
(Current in $000)

Table 2. Retail sales 1976-1980

County	1976	1977	1978	1979	1980
Butler	45829	52946	51180	57867	61055
Franklin	44870	49382	58436	64781	68697
Hamilton	63131	65327	69376	79455	87868
Hardin	85881	98501	98791	118194	128964
Marshall	157476	171251	183493	202183	210844
Webster	205054	224677	244661	266926	298213
Wright	65358	70025	74550	83805	87188
Region Total	605099	732109	78487	873211	942829

Source: Iowa Retail Sales and Use Tax Report. Ames: Iowa Department of Revenue and Finance and Iowa State University Extension Services.
(Current in $000)

Table 3. Retail sales 1981-1985

County	1981	1982	1983	1984	1985
Butler	58905	62111	53417	59521	56147
Franklin	67300	66187	67425	57593	57200
Hamilton	83164	84114	87310	85720	83581
Hardin	124053	123838	126560	125988	120061
Marshall	216646	218573	227858	232617	240047
Webster	290808	288763	297795	301798	300470
Wright	85481	91243	89211	86141	79513
Region Total	926357	934829	959576	949378	93019

Source: Iowa Retail Sales and Use Tax Report. Ames: Iowa Department of Revenue and Finance and Iowa State University Extension Services.
(Current in $000)

Table 4. Retail sales 1986-1987

County	1986	1987	1988
Butler	55095	54114	47027
Franklin	52656	62215	56102
Hamilton	79313	81930	116399
Hardin	114679	114209	116399
Marshall	233498	234886	251609
Webster	293803	306071	298095
Wright	73380	72790	72469
Region Total	902424	926215	958100

Source: Iowa Retail Sales and Use Tax Report. Ames: Iowa Department of Revenue and Finance and Iowa State University Extension Services.
(Current in $000)

Table 5. Number of unemployed 1979-1983

County	1979	1980	1981	1982	1983
Butler	240	510	590	770	870
Franklin	180	260	260	440	500
Hamilton	300	410	510	540	590
Hardin	240	370	470	520	530
Marshall	710	1070	1190	1860	2080
Webster	970	1330	1520	1780	1800
Wright	240	380	370	450	510
Region Total	2880	4330	4910	6360	6880

Source: Iowa Labor Force Summary, Current Population Survey.

Table 6. Number of unemployed 1984-1988

County	1984	1985	1986	1987	1988
Butler	630	750	730	540	390
Franklin	380	420	390	390	270
Hamilton	560	580	570	370	300
Hardin	610	600	620	640	510
Marshall	1560	1550	1430	1190	810
Webster	1660	1860	1590	1220	1000
Wright	408	630	460	350	300
Region Total	5808	6390	5790	4700	3580

Source: Iowa Labor Force Summary, Current Population Survey.

Table 7. Total employment 1979-1983

County	1984	1985	1986	1987	1988
Butler	7280	6980	6930	6930	7070
Franklin	5290	5350	5310	5090	5120
Hamilton	8710	8510	8860	9040	9860
Hardin	9510	9370	9340	9140	9240
Marshall	18950	18170	18490	18170	19130
Webster	19520	19020	18980	18980	19860
Wright	7870	7370	7180	7140	7430
Region Total	77130	74770	75090	74490	77710

Source: Iowa Labor Force Summary, Current Population Survey.

Table 8. Total employment 1984-1988

County	1984	1985	1986	1987	1988
Butler	7280	6980	6930	6930	7070
Franklin	5290	5350	5310	5090	5120
Hamilton	8710	8510	8860	9040	9860
Hardin	9510	9370	9340	9140	9240
Marshall	18950	18170	18490	18170	19130
Webster	19520	19020	18980	18980	19860
Wright	7870	7370	7180	7140	7430
Region Total	77130	74770	75090	74490	77710

Source: Iowa Labor Force Summary, Current Population Survey.

Table 9. Per capita income 1970-1974

County	1970	1971	1972	1973	1974
Butler	3331	3470	3970	5304	5075
Franklin	3932	3688	4326	6186	5423
Hamilton	4073	4413	5082	6665	6335
Hardin	4138	3961	4420	5945	6007
Marshall	4429	4646	4867	5836	6210
Webster	3706	4055	4744	6398	6734
Region Total	27518	28161	31692	41659	42559

Source: Goudy and Burke, 1989.
(Current in $000)

Table 10. Per capita income 1975-1979

County	1975	1976	1977	1978	1979
Butler	5779	5856	6640	8081	8536
Franklin	7065	6331	6718	8533	8911
Hamilton	7061	6829	7603	9167	10160
Hardin	6405	6691	7130	8658	9363
Marshall	6806	7425	7682	8834	9588
Webster	6137	6485	7139	8329	9337
Wright	7250	6892	8035	9277	9994
Region Total	46503	46509	50947	60879	65889

Source: Goudy and Burke, 1989.
(Current in $000)

Table 11. Per capita income 1980-1984

County	1980	1981	1982	1983	1984
Butler	8738	10082	9583	9435	11054
Franklin	9034	10940	10041	9714	11401
Hamilton	10640	12415	11990	12029	12951
Hardin	9914	11354	11009	10683	12094
Marshall	10377	11432	11533	11876	12508
Webster	10065	10973	10902	10536	11453
Wright	10335	11892	11841	11980	13771
Region Total	69103	79088	76899	76253	85232

Source: Goudy and Burke, 1989.
(Current in $000)

Table 12. Per capita income 1985-1988

County	1985	1986	1987	1988
Butler	11446	12082	12842	13124
Franklin	11896	13153	13488	14153
Hamilton	14267	15433	16112	16270
Hardin	12973	14357	14910	14310
Marshall	13156	13669	14666	14859
Webster	12099	12958	13620	14017
Wright	14209	15008	15713	16660
Region Total	90046	96660	101351	103393

Source: Goudy and Burke, 1989.
(Current in $000)

Table 13. Fiscal dollars spent on ADC 1985-1988

County	1985	1986	1987	1988
Butler	682	692	727	652
Franklin	350	423	437	408
Hamilton	631	621	721	674
Hardin	754	752	765	740
Marshall	2068	2139	2239	2139
Webster	2919	3106	3239	3986
Wright	549	661	609	542
Region Total	9011	8394	8737	9141

Source: Iowa Department of Human Services, Bureau of Economic Analysis, Transfer Income Data.
(Current in $000)

Table 14. Fiscal dollars spent on food stamps 1985-1988

County	1985	1986	1987	1988
Butler	542	624	640	513
Franklin	244	322	340	240
Hamilton	417	477	502	502
Hardin	413	522	577	550
Marshall	1430	1460	1520	1492
Webster	1870	1984	2068	2031
Wright	433	494	427	377
Region Total	5349	5883	6074	5705

Source: Iowa Department of Human Services, Bureau of Economic Analysis, Transfer of Income Data.
(Current in $000)

Table 15. Total population 1960-2000

County	1960	1970	1980	1990*	2000*
Butler	17467	16953	17668	17200	17000
Franklin	15472	113255	13036	12100	11500
Hamilton	18383	17862	17400	17200	17200
Hardin	22533	22248	21776	21200	21000
Marshall	37984	41076	41652	43300	44600
Webster	47810	48391	45953	43700	42900
Wright	19447	17294	16319	15800	15700
Region Total	180745	177600	174266	170700	114060

Source: U.S. Department of Commerce, Bureau of Census, Social and Economic Statistics Administration, Detailed Characteristics of Iowa, U.S. Census of Population (1960, 1970, 1980); *Goudy and Burke, 1989.
*Projections

Table 16. Number of live births 1970-1978

County	1970	1972	1974	1976	1978
Butler	272	227	241	256	296
Franklin	185	150	140	161	198
Hamilton	303	246	243	227	243
Hardin	316	262	266	285	295
Marshall	716	620	560	565	576
Webster	777	675	623	636	693
Wright	240	174	222	213	229
Region Total	2809	2354	2295	2343	2530

Source: Goudy and Burke, 1989.

Table 17. Number of live births 1980-1987

County	1980	1982	1984	1986	1987
Butler	284	255	242	209	179
Franklin	195	176	193	148	139
Hamilton	257	219	254	243	198
Hardin	348	324	283	233	218
Marshall	673	617	588	520	455
Webster	760	733	631	574	595
Wright	247	208	203	171	177
Region Total	2764	2532	2394	2098	1961

Source: Goudy and Burke, 1989.

Table 18. Number of divorces 1980-1984

County	1980	1981	1982	1983	1984
Butler	35	30	37	44	42
Franklin	47	48	35	35	37
Hamilton	56	57	57	65	55
Hardin	62	71	58	62	58
Marshall	219	193	185	190	152
Webster	188	189	169	174	168
Wright	66	50	51	57	61
Region Total	673	638	592	627	573

Source: Goudy and Burke, 1989.

Table 19. Number of divorces 1985-1989

County	1985	1986	1987	1988	1989
Butler	42	38	31	42	33
Franklin	38	28	30	34	32
Hamilton	50	58	61	56	60
Hardin	67	52	46	73	68
Marshall	160	163	166	201	174
Webster	148	167	197	174	184
Wright	57	54	55	43	45
Region Total	562	560	586	623	596

Source: Goudy and Burke.

Table 20. Suicide rates 1976-1987

County	1976	1977	1979	1980
Butler	05.80	17.20	05.70	00.00
Franklin	07.60	07.60	07.40	07.70
Hamilton	05.60	17.00	00.00	05.60
Hardin	18.20	09.10	22.60	04.60
Marshall	14.10	11.70	14.40	07.20
Webster	04.20	12.70	17.20	08.70
Wright	23.80	06.10	06.10	12.30
Region Total	79.30	81.40	73.40	46.10

Source: Iowa Department of Human Services, Vital Statistics.
(per 1,000 population)

Table 21. Suicide rates 1982-1987

County	1982	1984	1986	1987
Butler	00.00	05.60	18.00	18.30
Franklin	00.00	07.90	08.10	16.40
Hamilton	05.60	17.30	17.60	17.50
Hardin	27.60	04.60	04.80	09.90
Marshall	16.70	12.10	29.60	15.10
Webster	22.10	11.50	25.80	14.20
Wright	06.30	18.90	13.20	13.50
Region Total	78.30	77.90	117.10	104.90

Source: Iowa Department of Human Services, Vital Statistics.
(per 1,000 population)

Table 22. Number of mental health admissions 1979-1982

County	1979	1980	1981	1982
Butler	12	22	10	16
Franklin	1	9	2	2
Hamilton	5	1	7	2
Hardin	15	14	7	6
Marshall	26	24	18	7
Webster	14	5	20	3
Wright	12	14	14	7
Region Total	85	89	78	43

Source: Iowa Department of Human Services, Bureau of Management Information.

Table 23. Mental health admissions 1985-1988

County	1983	1984	1985	1988
Butler	10	9	12	16
Franklin	2	3	6	7
Hamilton	3	2	0	10
Hardin	12	7	7	27
Marshall	9	7	7	27
Webster	9	6	5	47
Wright	2	4	3	14
Region Total	47	38	40	148

Source: Iowa Department of Human Services, Bureau of Management Information.

Table 24. Number of farms 1974-1987

County	1974	1978	1980	1982	1987
Butler	1565	1560	1520	1467	1294
Franklin	1287	1210	1170	1168	1012
Hamilton	1293	1280	1230	1158	1026
Hardin	1300	1220	1180	1208	1065
Marshall	1360	1270	1230	1201	1073
Webster	1550	1340	1280	1357	1235
Wright	1195	1140	1100	109	882
Region Total	9550	9020	8710	8568	7587

Source: U.S. Department of Commerce, Bureau of the Census, Census of Agriculture (1974, 1978, 1982, 1987).

Table 25. Average size of farms 1974-1987

County	1974	1978	1980	1982	1987
Butler	222	228	234	229	254
Franklin	271	292	302	314	342
Hamilton	273	276	288	309	339
Hardin	268	285	295	295	331
Marshall	261	273	282	281	308
Webster	278	317	332	309	337
Wright	308	314	326	357	390
Region Total	1879	1985	2059	2094	2201

Source: U.S. Department of Commerce, Bureau of the Census, Census of Agriculture (1974, 1978, 1982, 1987).