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Agricultural land transfers in Iowa during the financial stress of the 1980s

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by

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DEDICATION

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CHAPTER I. INTRODUCTION

> Prices for farm products advanced to unheard of heights. As a result, there developed an active demand for farm land, which, in turn, increased land prices. Not only did the price of land go up, but still more important, many farms changed hands at the high price level. To make possible the purchase of so much land, a vast amount of credit was used. Hence, price inflation and land sale activity brought about a great increase in total debt [9, p. 373].

This quote comes from a study of farm mortgages by Dr. William G. Murray in 1933. The quote not only summarizes the depression in agriculture of the 1930s, but could have very well been said about the agricultural economy in the 1970s and early 1980s.

The 1970s brought great prosperity to agriculture and to the State of Iowa. During the 1970s, farmers enjoyed relatively good prices for agricultural commodities, readily available credit and high land values. These economic conditions gave farmers a false sense of security and sowed the seeds for the crisis of the 1980s.

Agriculture in Iowa in the 1980s has seen rapid economic and social change. Not since the 1930s has such economic and social upheaval been experienced in agriculture. These changes are shown in the deteriorating financial health of farmers, the rapid decline in land values, the record number of financial institution failures, and the decline of economic activity in rural communities. Future economic decisions by farmers, lenders, researchers, and policymakers will be greatly influenced by the economic lessons of the 1970s and 1980s.

The economic turmoil of the 1980s brought about a redistribution of assets and a loss of wealth in agriculture. A majority of this redistribution took place in the form of transfers from debtor to creditor. Evidence of this transfer can be seen in the financial statements of farmers, the financial health of the financial institutions, and the general downturn in economic activity in Iowa.

The major basis for agricultural wealth is land. Because of the rapid economic changes in agriculture and the importance of farmland, it is reasonable to ask how much change occurred in the number of agricultural land transfers between debtors and creditors during times of severe financial stress.

The purpose of this study is to collect and analyze data concerning the transfer of agricultural land in Iowa because of financial stress. There is very little, if any, data available on the transfer of agricultural land. Available data on farmland usually concern its value and use. Data on farmland transfer are in an aggregate form which limits its usefulness. It is important to have access to transfer data in assessing the impact of financial stress in the 1980s, in providing an indicator of the future financial health of Iowa agriculture, and in providing a historical record of this period in Iowa agriculture.

The study begins with a section devoted to discussing the macroeconomic forces which contributed to the agricultural crisis of the early 1980s. The next section presents how these macroeconomic forces affected the economy at the farm level. The third chapter more

fully develops the problem and the objectives of the study. The methodology and procedure chapter follows. This chapter details the county survey design and how the data were used to provide state-wide estimations of the land transferred.

The final two chapters of the paper present the results of the survey. The conclusion section of the paper is a discussion of the results. Finally, recommendations and further researchable questions raised by this study are presented.

CHAPTER II. BACKGROUND

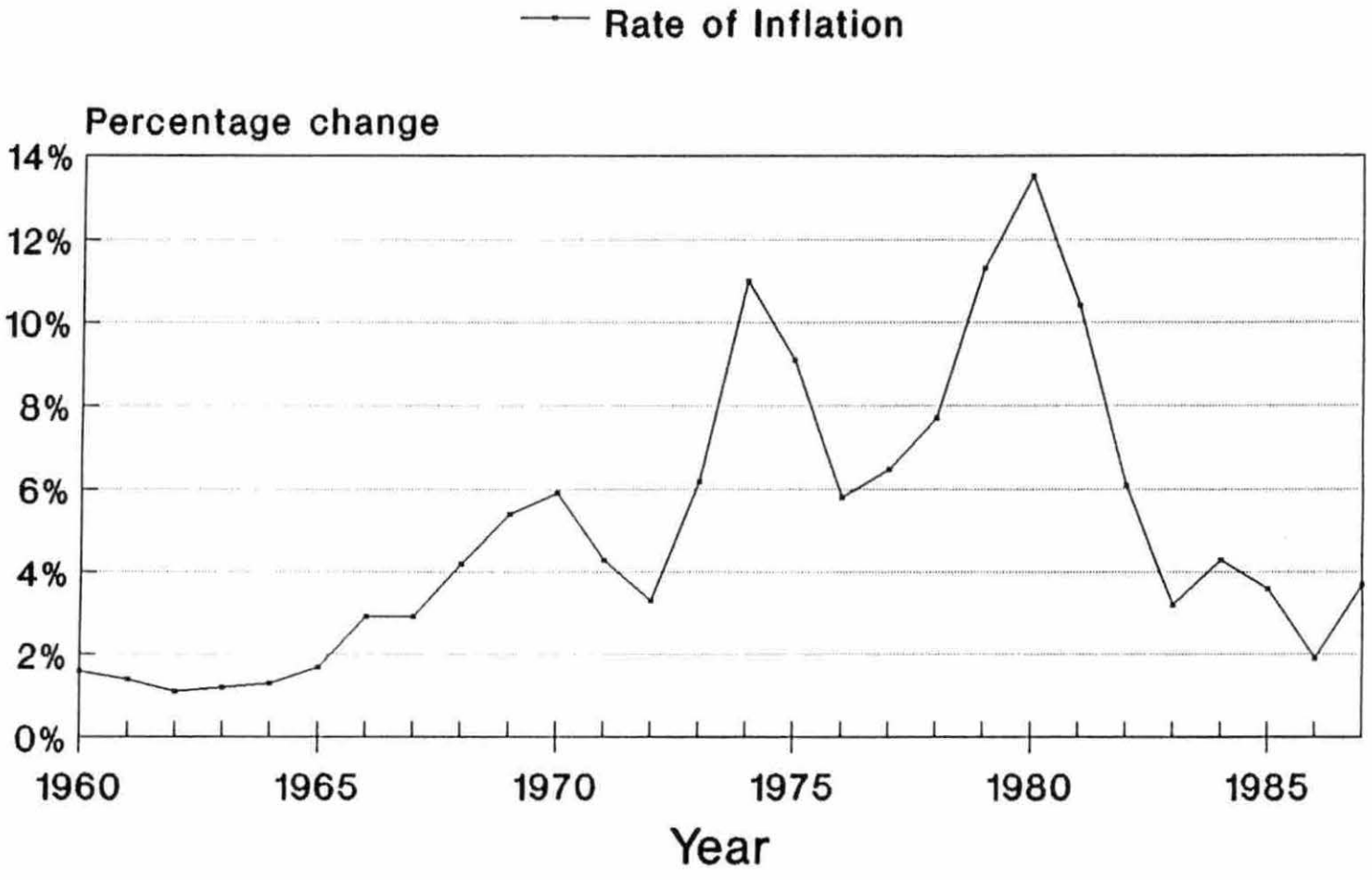
Macroeconomic Factors

A number of macroeconomic factors contributed to the agricultural downturn of the 1980s. It is important to recognize the roots of this downturn in order to better understand the resulting effects on farmers. This discussion focuses on U.S. macroeconomic forces and the international reaction to them.

There were three areas of economic decisions at the federal level that led to the unfavorable economic conditions of the 1980s [6, p. 4]. Their impact upon farm firms was magnified because of the characteristics of U.S. agriculture of a relatively low cash rate of return for many farm assets, a high level of capital intensity, and a sensitivity to changes in export supply and demand conditions in international agricultural commodity markets [6, p. 4].

The first set of federal economic decisions that contributed to unfavorable economic conditions for agriculture was a set of policies that treated inflation as an expected part of the economy. The budget strains created by the Vietnam War and the increase of energy costs in 1973 were major contributors to the high rate of inflation experienced for the next seven years, as shown in Figure 2.1 [3, p. 317].

This relatively high rate of inflation during the 1970s permeated every aspect of economic decision-making, from the indexing of social security benefits to the investment in capital assets. Farmers hedged against inflation by purchasing capital goods (i.e., land, machinery,



Note: Based on changes in Consumer Price Index (C.P.I.)

Figure 2.1. Rate of inflation 1960-1987 [3, p. 317]

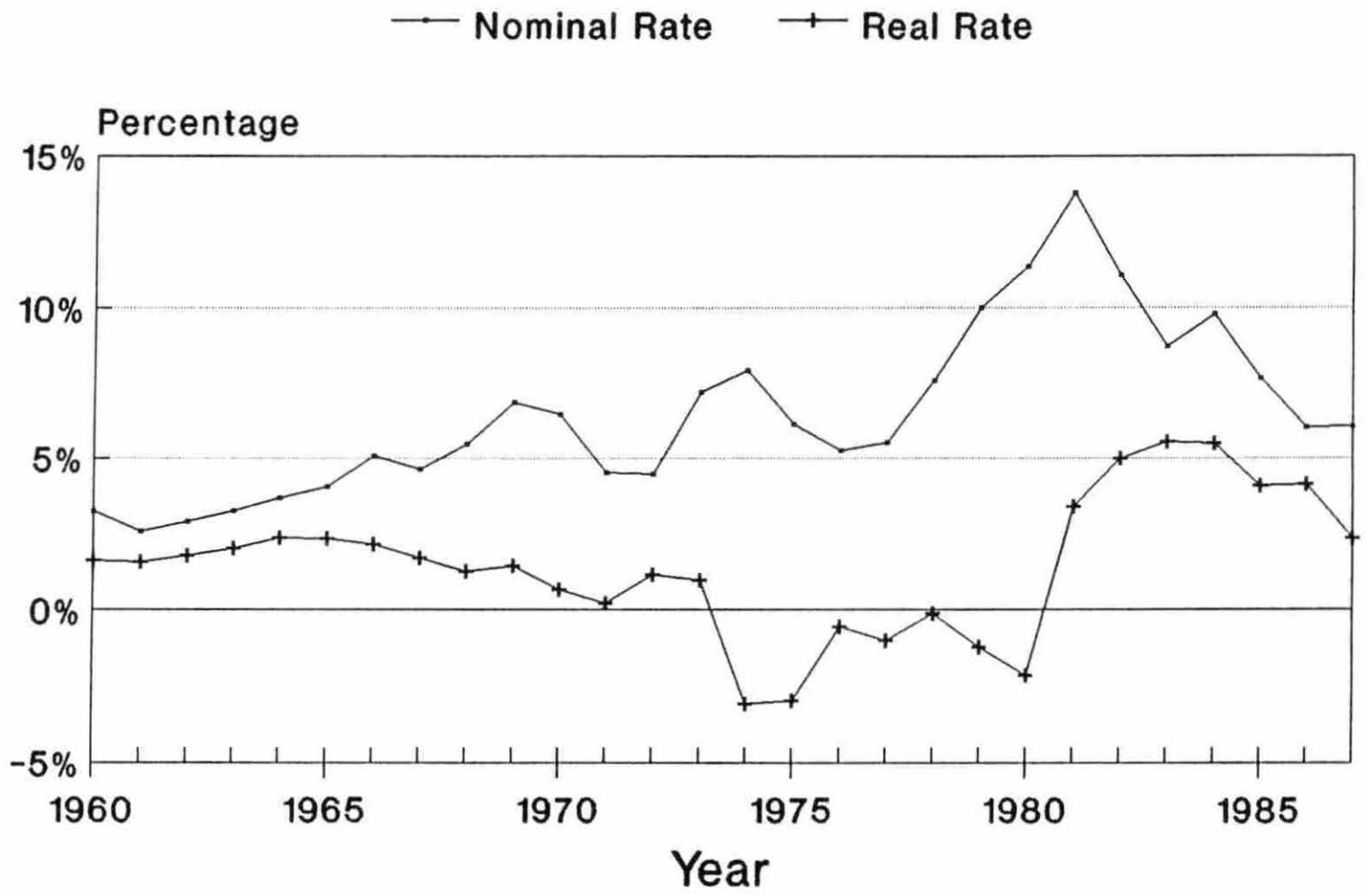
equipment) using borrowed capital, thus leaving them enormous debt to service at a later time.

This is shown by the increase in total farm assets from $324 billion in 1970 to $1,103.7 billion in 1983, an increase in nominal dollars of 229.1 percent. In real terms, farmers' total assets increased 32.4 percent during the same time period [3, p. 363].

Along with the increase in assets came the increase in debt from $52.8 billion in 1970 to a peak of $206.5 billion in 1983, an increase of 291.1 percent. (These figures do not include Commodity Credit Corporation (CCC) debt.) In 1967 dollars, total assets and debts peaked in 1979, whereas the nominal peak was reached in 1983 [3, p. 363].

The second important economic decision was an attempt by the Federal Reserve Board to lower the rate of inflation by limiting the supply of credit. Their action in October 1979 reduced the inflation rate from a high of 13.5 percent in 1980 to a low of 1.9 percent in 1986 [3, p. 317]. This action raised real interest rates to historically high levels, as shown in Figure 2.2 [3, p. 317]. Real interest rates are defined here as the nominal interest rate minus the rate of inflation.

In 1981, Iowa farmland values peaked and began a 63.3 percent decline through 1986 [16, p. 1]. The substantial increases in land values from the inflation of the 1970s were gone. Thus, farmers were no longer able to restructure debt using inflated asset values to secure credit and they were forced to service debt from current income.



Note: Based on 6-month T-bills

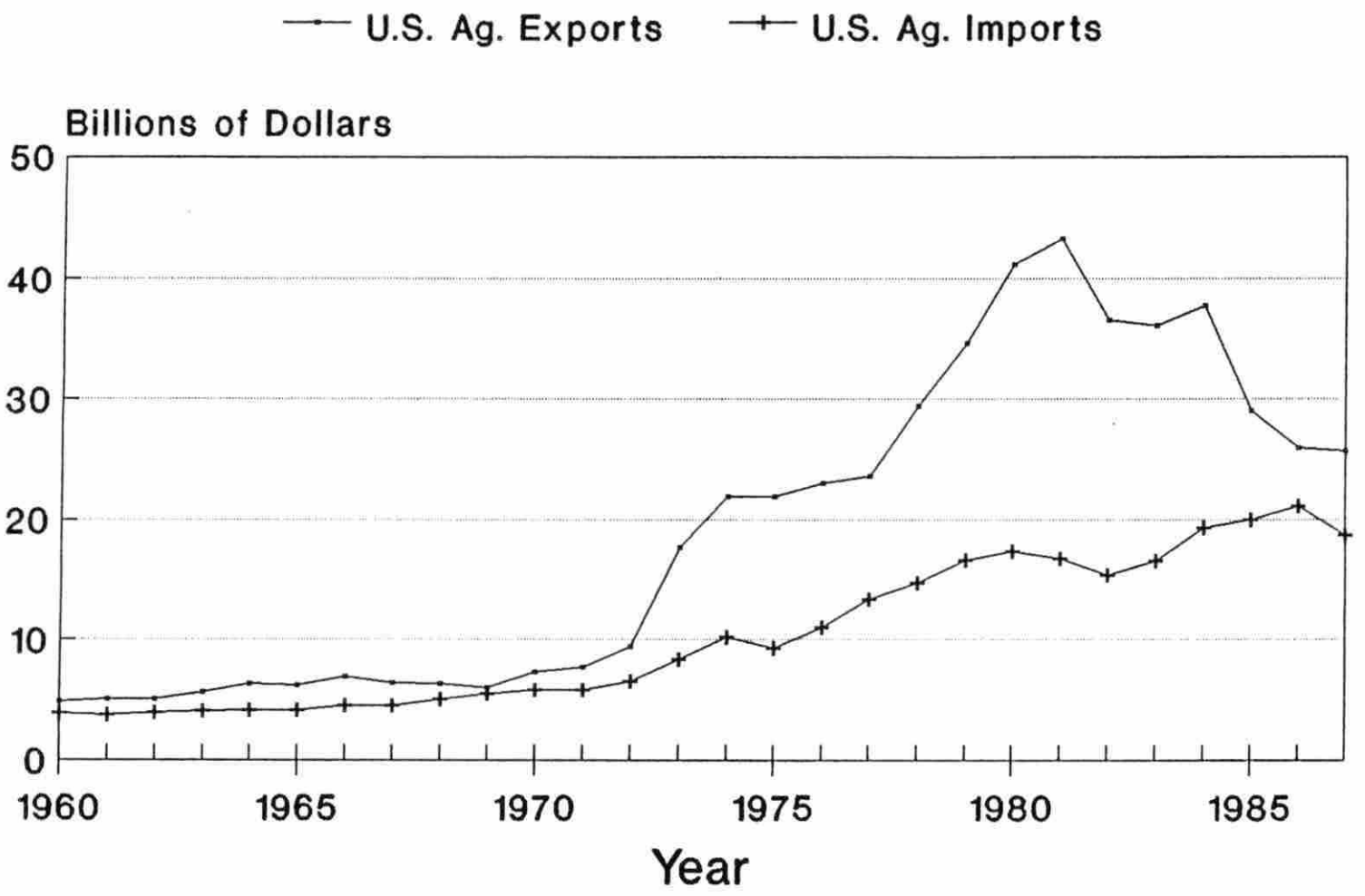
Figure 2.2. Interest rates 1960-1987 [3, p. 317]

The third economic decision that now appears to have been detrimental to the economic health of agriculture was the enactment of the Economic Recovery Tax Act of 1981. This act cut federal tax revenues by an estimated $872 billion over five years [6, p. 6]. However, federal expenditures continued to increase from $703.3 billion in 1981 to $1,023 billion in 1986. As a result, the federal government budget deficits rose from $63.8 billion to $205.7 billion from 1981 to 1986 [3, p. 341]. With growing federal budget deficits, a large public sector demand for capital occurred.

As the federal government demanded and competed with the private sector for capital to finance the increasing deficit, nominal interest rates were sustained at relatively high levels as shown earlier. Farmers incurred higher production costs due to higher interest rates. The cost of financing current operating expenses and of already incurred debt increased, further decreasing farmers' income.

The 1970s were a period of "internationalization" for U.S. agriculture. This is represented in Figure 2.3 by the increase in dollar value of U.S. farm exports, which reached a peak of $43.3 billion in 1981 [3, p. 362].

The reaction of other countries' agricultural sectors to the United States' economic policies and conditions helped to magnify the domestic policies' adverse impact on U.S. agriculture. Changes in U.S. macroeconomic policy affected the value of the U.S. dollar versus foreign currencies. In the early 1980s, the dollar's value rose against foreign currencies. When comparing the change in the level of



Note: 1987 is from Jan. - Nov.

Figure 2.3. U.S. agricultural exports and imports 1960-1987 [3, p. 371]

U.S. agricultural exports (Figure 2.3) and the change in the value of the U.S. dollar (Figure 2.4), one can conclude as did Schuh [21, p. 12] that macroeconomic policies and the value of the U.S. dollar can adversely affect the export of U.S. farm commodities [3, pp. 362, 371]. By 1986, U.S. farm exports had dropped to a low of $26.0 billion. At the same time, U.S. agricultural imports had increased from $16.8 billion in 1981 to $21.1 billion in 1986 [3, p. 362].

During the 1970s, both world crop production and demand were increasing. From 1972 to 1980, world crop production and the consumption rate increased 2.2 percent and 2.9 percent, respectively. However, from 1980 to 1985, the trend was reversed with world crop production continuing to grow an average rate of 3.0 percent, but the consumption rate dropped to 1.5 percent [20, p. 10]. This change from production increases growing less than increases in consumption to where growth in production was greater than growth in demand contributed to the decline in prices of major agricultural commodities [1, pp. 61, 242, 287].

The United States' economic policies and resulting reaction of the rest of the world's agricultural sector proved to be devastating to the economic health of U.S. agriculture. The results of these policies were an economic environment of low inflation and record-setting real interest rates with tight credit and strong demand for capital. For agriculture, these policies were detrimental. The results were 1) a strong dollar that set records against other currencies and reduced U.S. exports of farm commodities, 2) high

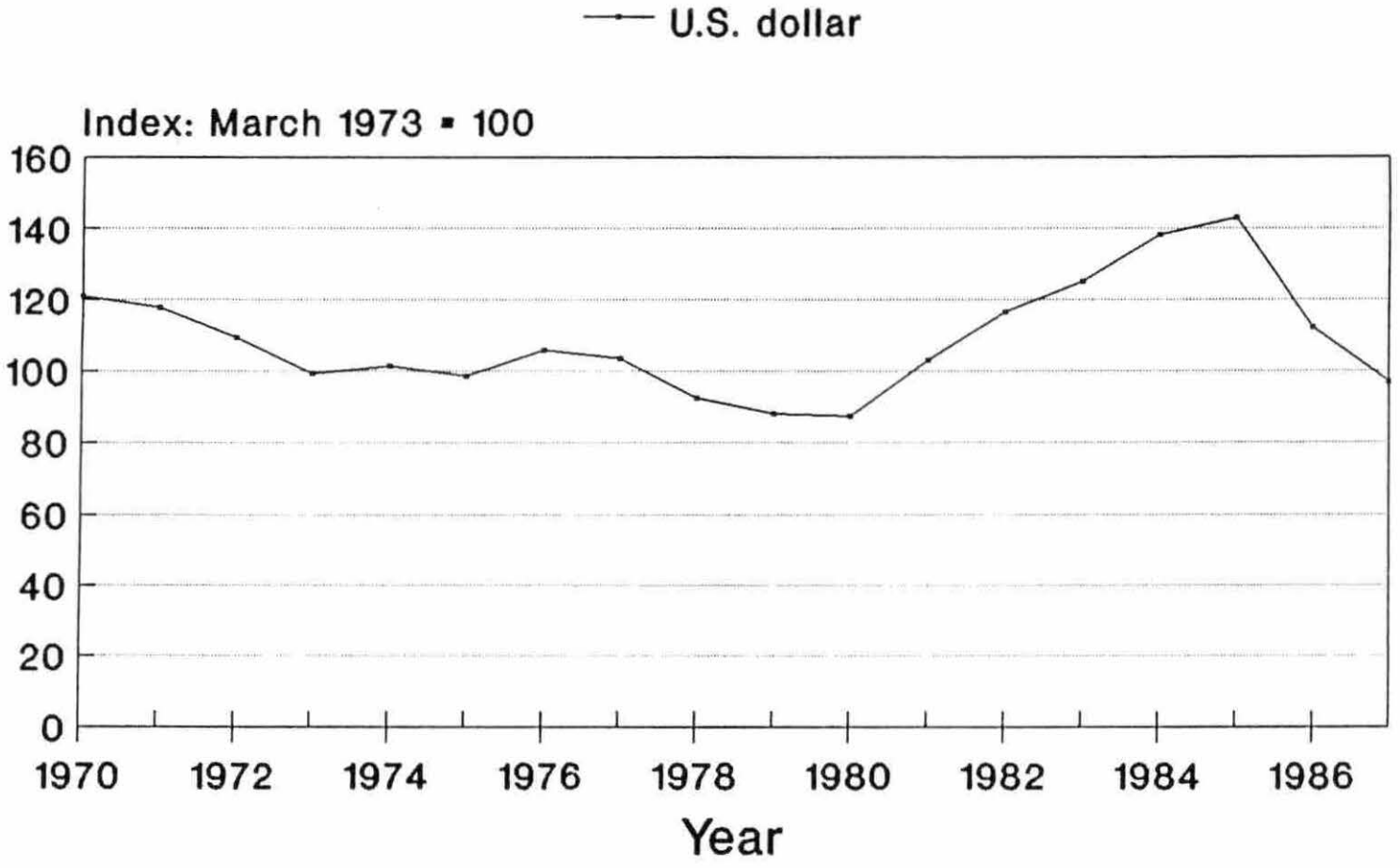


Figure 2.4. Value of U.S. dollar (multilateral trade weighted value) [3, p. 371]

interest rates that boosted the cost of production for indebted farmers, and 3) falling land values as potential purchasers had been confronted with relatively high real interest rates and the reassessment of land as an alternative investment in the economic environment of the 1980s [6, p. 6]. Thus, the agriculture economy was negatively affected by more than just one macroeconomic shock.

The Microeconomic Results

The results of the changes in U.S. macroeconomic policy had a negative effect on agriculture, particularly at the firm level. Farmers suffered reduced incomes, increased production costs, decreased opportunities for credit, and reduced value of their capital assets, particularly land. The following discussion focuses on the financial health of Iowa farmers, the change in Iowa agricultural land values, and the importance of agricultural land.

The financial health of Iowa farmers

Total net farm income in Iowa fell from a high of $2.591 billion in 1973 to a low of -$250.7 million in 1983. A negative total net farm income is realized due to a net change in farm inventories. During the 1980s, net farm income was variable (see Table A.1) [17, p. 89].

In March 1984, the Iowa Department of Agriculture, the Iowa Crop & Livestock Reporting Service, and Iowa State University conducted a farm finance survey which provided researchers with a picture of the financial condition of Iowa farmers. The 1984 survey showed a

significant percentage of the operators (28 percent) with debt-to-asset ratios exceeding 40 percent [5, p. 4]. The Economic Research Service of the U.S. Department of Agriculture notes farmers typically begin to have financial difficulties when the debt-to-asset ratio exceeds 40 percent [23, p. 22].

Another farm finance survey in 1985 provided the first data on the changes in the financial health of Iowa farmers during the 1980s. The 1985 survey found the following changes from 1984:

- On the average, all operators experienced a significant loss in net worth---$114,000 or 24.8 percent since 1984 [13, p. 3].
- Assets declined $109,000 in value or 18 percent from year earlier levels. Non-real estate assets declined in value 8.8 percent, whereas real estate declined 21.5 percent or $93,000 [13, p. 3]. This approximates declines measured in the 1984 Land Value Survey [4, p. 1].
- Debts, on the average, increased $5,000 or 3.2 percent. However, real estate debt actually declined an average of $2,000 or 1.9 percent. This reflects repayment, liquidation of debt, and renegotiation of land contracts [13, p. 3].
- Most of the loss in equity between the surveys could be attributed to declines to asset values rather than accumulating debt [13, p. 3]. Asset value declined 7.4 percent, while debt increased only 0.69 percent from 1984 to 1985. Total net worth decreased 11.17 percent [5, p. 2;

13, p. 9].

- Changes in the number of farmers in various debt-to-asset ratio classes showed a general worsening of financial conditions (Appendix A, Table A.2). For operators with higher than a 40 percent debt-to-asset ratio in 1984, the odds of losing financial position were much greater than the odds for an improvement [13, p. 3].

As the 1985 survey found, the financial health of farmers had deteriorated as more farmers moved into the 40 percent and above debt-to-asset ratio category.

The 1986 Iowa Farm Finance Survey showed relative financial stability among farmers as compared to the 1985 survey, even though land prices continued to decline. However, almost one-third of the farmers in Iowa were considered to be experiencing severe financial stress [15, p. 10].

Appendix A contains the tables on the change in debt-to-asset ratio class from 1985 through 1987. These tables contain the distribution of operators among debt-to-asset ratio classes from year to year. This classification is a measure of the change in the "financial stress" individual producers were experiencing.

The results of the 1987 Farm Finance Survey pointed to a somewhat improved farm financial picture. The survey found a significant number of Iowa farmers had moved from a stable position to a strong financial position during the preceding year. This finding corresponded to a slight increase in land values during the same period. However, the

report found that many Iowa farmers remained under financial stress (31%) in spite of the improved farmland market conditions [18, p. 4].

In four years of the Farm Finance Survey, almost one-third of Iowa's farmers were experiencing severe financial stress based on their debt-to-asset ratio. These surveys provided important information about the financial health of Iowa's farmers and an idea of the scope of the "crisis" in agriculture.

The change in Iowa agricultural land values

Another measure of the financial stress in agriculture is the value of Iowa farmland. Since 1941, Iowa State University has conducted a survey of Iowa farmland values.

In 1981, the average value for an acre of Iowa agricultural land peaked at $2,147 [4, p. 1]. Iowa farmland values declined for five consecutive years to a low of $787 per acre in 1986 [16, p. 1]. During the period 1981 through 1986, farmland values in Iowa decreased 63.3 percent [16, p. 1]. Figure 2.5 shows the land values on a per acre basis from 1950 through 1987 [4, p. 1; 19, p. 1]. The figures clearly show the rapid increase in land values in the 1970s. As discussed earlier, the 1970s were a period of unprecedented growth in the agricultural sector with rising commodity prices, rising inflation, low real interest rates, and readily available credit which translated into higher agricultural land values.

Figure 2.5 also shows the drop in farmland values in the 1980s. The economic factors that contributed to the increasing land values of

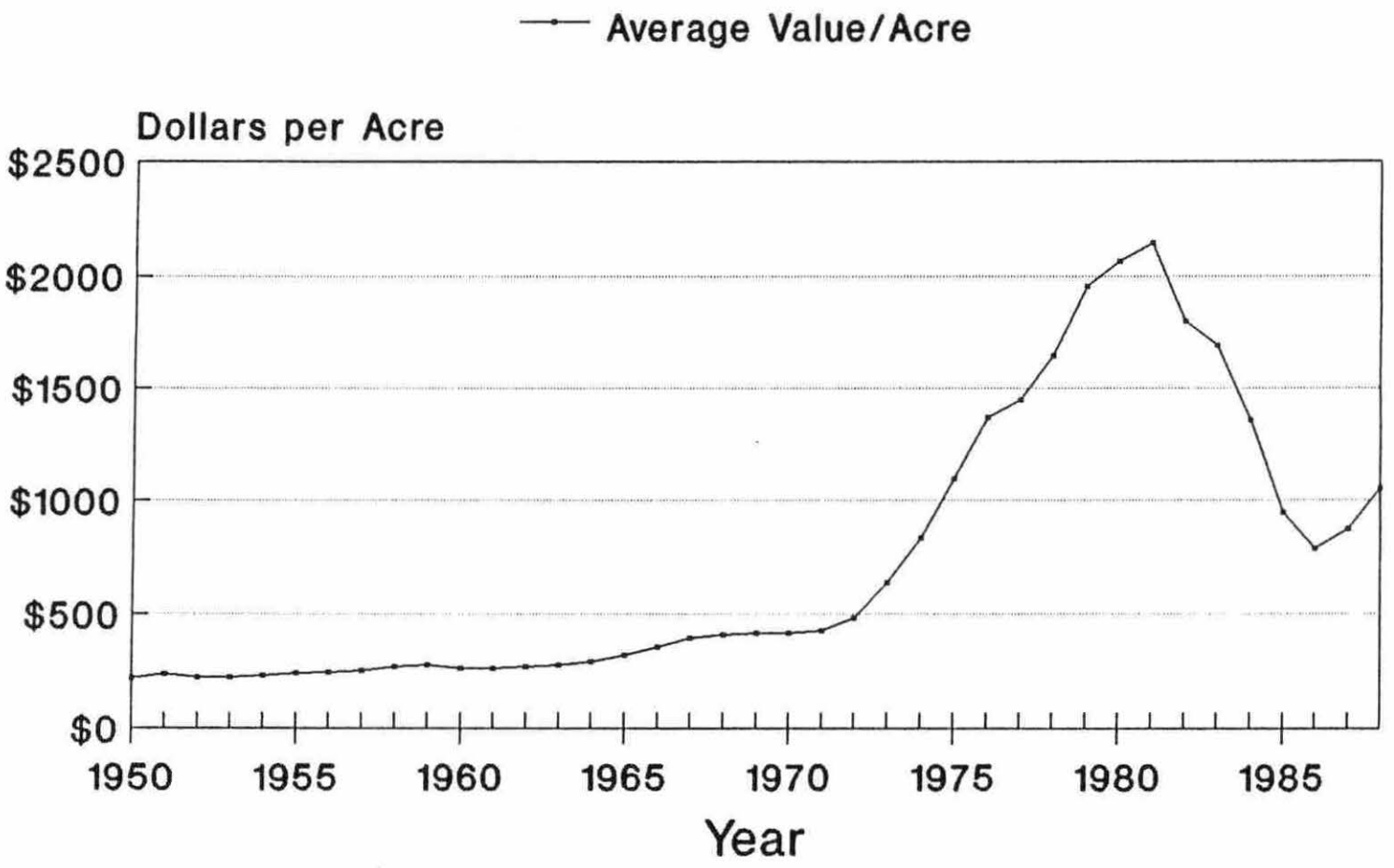


Figure 2.5. Iowa agricultural land values (nominal dollars) [4, p. 1]

the 1970s were the same factors in the 1980s that contributed to the drop in agricultural land values, particularly relatively high real interest rates [6, p. 6].

The decline in agricultural land values produced a "domino effect" in the agricultural financial community. As a result of falling land values, farmers experienced a decrease in their net worth and an increase in their debt-to-asset ratio. These changes along with increasing real interest rates made it increasingly difficult for farmers to service their debt load and obtain operating credit. As asset values declined, farmers were making payments on collateral worth less than the value of the loan for which the land was used as collateral.

The simultaneous occurrences of falling farm income and rising interest rates pushed farmers into delinquency, thereby forcing lenders to take adverse action against their farmer/borrower. Often this adverse action resulted in the farmer selling productive assets to raise capital for debt retirement. The long-term health of agricultural financial institutions was being jeopardized by the increasing nonperformance of farm loans and the decreasing value of their security.

The importance of agricultural land

Much of agriculture's financial wealth is in land. The importance of agricultural land is easily seen in the context of the farmer. The producer depends on the land for the production of crops

as a commodity for sale or as feed for livestock. Agricultural land is also a capital asset for the farmer. The land is used as collateral to raise capital for the operation and the expansion of the farm business. Farmland, thus, serves a two-fold purpose for the farmer.

From the point of view of a land lender, agricultural land is security for loans. The financial health of a land lender depends upon the stability of land values. The rapid increase of land values in the 1970s gave lenders a false sense of security, that their security interest was always protected by increasing value. However, the falling land values of the 1980s decreased the value of a lender's security interest, thereby lowering the quality of their loan portfolio.

As farmers were unable to service the debt acquired during the 1970s, they began selling their assets, particularly farmland, to pay their loans. The farmer's sale of farmland had two effects. It deprived the producer of an income generating asset and contributed to an already depressed land market, thereby further jeopardizing the farmer's ability to retire debt. With the farmer falling into delinquency to lenders, the parties had three courses of action: 1) the farmer could voluntarily transfer assets to the lender, 2) the lender could foreclose on the farmer, or 3) the lender could write down or write off the loan.

The ownership and transfer of farmland are of great importance to Iowans. This concern for Iowa's farmland is evidenced by the restrictions placed on ownership of agricultural land in Iowa. For example, there is a prohibition on agricultural land holdings by

nonresident aliens (Iowa Code § 567.3, 1987) and corporations (Iowa Code § 172C.4, 1987). In addition, farmland ownership is limited to 1,500 acres for authorized farm corporations and limited partnerships (Act of May 9, 1988, House File 2283, 1988 Iowa Legis. Serv. 394 (West) (to be codified to Iowa Code § 172C.5)). The apparent goal is for agricultural land to remain in the hands of owner-operators and any deviation from that historical ownership pattern is believed to be somehow detrimental to landowners or the state or both.

Agricultural land is the basis for the economic well-being of farmers, financial institutions and the state as a whole. The transfer and ownership of farmland provide information about the financial health of agriculture.

CHAPTER III. THE PROBLEM AND OBJECTIVES

The Problem

The changes in U.S. macroeconomic policy brought about economic turmoil, a redistribution of assets, and a loss of wealth in agriculture. The decrease in the rate of inflation and the increase in real interest rates resulting from U.S. macroeconomic policies adversely affected U.S. agriculture. The most visible signs of changes in agricultural wealth were the drop in farmland values and the deteriorating financial health of farmers. With such rapid and drastic changes occurring in the agricultural economy and since the majority of agricultural wealth is based on land, it is reasonable to ask how much change occurred in the number of agricultural land transfers between debtors and creditors during these times of severe financial stress. The purpose of this study was to collect and analyze data concerning the transfer of Iowa agricultural land under financial stress.

Data available on agricultural land are incomplete. There are excellent data on the value of Iowa agricultural land. From land value data, we can only speculate on the changes in the transfer or ownership of farmland. Agricultural financial institutions involved in lending on agricultural land only provide aggregate data on their involvement in the agricultural land market. For example, the Farm Credit Corporation of America (FCCA) reports land held by key Farm Credit Districts, market value of the land, number of farms, and number of acres [24, p. 23]. These aggregate data are too general to give any

specific information about a particular area of the state, when the land was transferred, when the land was sold, or any trends over time.

It is important for farmers, policymakers, researchers, and citizens to have a historical record of the trends in agricultural land transfer during the 1980s, a period of major changes in Iowa agriculture. These trend data may assist in preparing for the next cycle of agricultural financial stress. Farmland transfer data may give an indication of the future price trends in farmland, ownership trends, and provide better information to policymakers when initiating legislation. Also, the data gathered from this study can be useful to future researchers when evaluating the agricultural economy.

Objectives of the Study

This study of agricultural land transfer in Iowa provides a comprehensive look at the results of financial stress in agriculture in the early 1980s. Since farmland represents much of agriculture's financial wealth, a study of its transfer provides a measure of the financial health of farmers, lending institutions, and rural communities.

The objectives of this study of Iowa agricultural land transfers are to determine:

- how many acres of agricultural land were transferred due to financial stress in Iowa,
- who were the participants in this land transfer,
- what type of transactions characterized this land transfer, and

- what happened after financially stressed land was transferred.

This study addresses the issue of whether there was a change in land transfers between creditors and debtors in Iowa during the financial stress of the early 1980s. In addition, the data collected provide a measure of the financial stress experienced by the state with respect to Iowa's basic asset.

The objectives of this study are accomplished by surveying a sample of Iowa counties' public records. The survey identifies agricultural land transferred to creditors due to financial stress. The survey provides data on the number of acres transferred due to financial stress, the participating creditors, the method of transfer, the number of transferred acres later sold, a measure of productivy of transferred land, and the holding period of transferred land in inventory. The county data are used to estimate both the regional and state impacts of the financial crisis in agriculture during the 1980s.

CHAPTER IV. METHODOLOGY AND PROCEDURES

Overview

This study surveyed public records in 11 Iowa counties. The period of time covered in the survey was from January 1, 1980 to July 1, 1987. The seven and one-half years of data from each county are used to estimate the amount of agricultural land transferred, transferred land sold, lenders' farmland inventory as of July 1, 1987, and how long transferred land was held before sale. These data are provided by agricultural region and for the entire state.

In June of 1987, a pretest was conducted in Boone County, Iowa. This county was used to determine the feasibility of the study. Boone County was chosen because of its close proximity to Ames.

Once the feasibility of the study was established and with the assistance of Harold D. Baker in the Survey Division, Statistical Laboratory, Department of Statistics, Iowa State University, a random sample was selected. With the counties chosen, the actual collection of data from the public records took place.

Survey Design

A stratified sample of counties was used for this survey. The strata used were the five generally accepted agricultural regions of the state [7, p. 296]. The regions are:

I. Northeast Dairy Area,

II. Eastern Livestock Area,

III. Cash Grain Area,

IV. Western Livestock Area, and

V. Southern Pasture Area.

Within each stratum, two counties were selected using a systematic selection process with probabilities proportional to their size in terms of the number of acres in farms in 1985 [14, p. 3]. Data from Boone County, the pilot county, in the cash grain stratum were also used. Boone County was treated as if it had been selected in the same manner as the other counties.

The systematic selection procedure included listing the counties by stratum, land in farms (acres), and summing by stratum. By using the cumulative total of land in farms by stratum and a random number table, two counties were selected from each stratum. This method was employed to ensure randomness, so if there was a correlation between a county's size and the data being collected, it would be minimized.

The final sample included the following counties: Allamakee, Boone, Butler, Cherokee, Dallas, Davis,.Iowa, Louisa, Shelby, Union, and Wright. The five generally accepted agricultural regions and the 11 counties selected for the survey are shown in Figure 4.1.

Survey Methodology and Procedure

In Iowa, there are four procedures by which an asset may be returned to the secured party. The first two procedures listed require judicial action. The procedures are as follows:

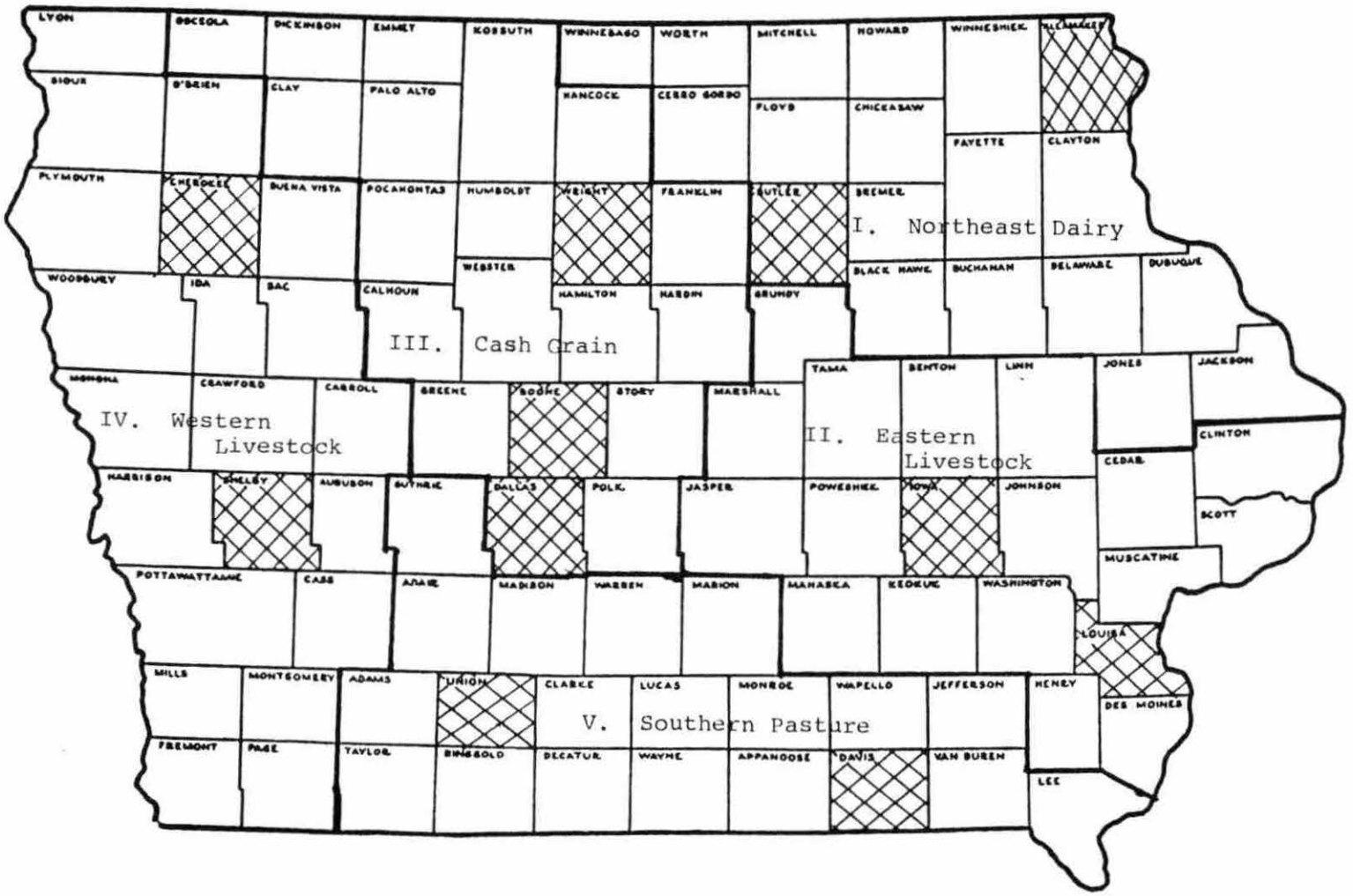


Figure 4.1. Five agricultural regions of Iowa and counties surveyed (shaded)

1. Judicial foreclosure - This action is initiated by the creditor against the debtor. The creditor initiates the action to protect its interest in the property. If the property is sold at a sheriff's sale, the proceeds are applied to the outstanding debt. If the property is worth less than the obligation against it, the debtor will be left with a deficiency judgment against him or her. A judicial foreclosure action invokes statutory redemption under Iowa law (Iowa Code § 654, 1987).
2. Affidavit and notice of forfeiture - This action is initiated against the vendee (buyer) of the property on a real estate contract by the vendor (seller). The vendor asserts a right to the property often because of the vendee's failure to perform under the contract (Iowa Code § 656, 1987).
3. Deed in lieu of foreclosure - This is an action of the debtor voluntarily deeding the property to the creditor in full or part satisfaction of the mortgage obligation (Iowa Code § 654.10, 1987).
4. Non-judicial voluntary foreclosure - This is a written agreement between parties. The debtor conveys the property to the creditor for waiver of the creditor's right to deficiency or any other claim against the debtor. Under this procedure, junior lien-holders have a 30-day right of redemption (Iowa Code § 654.19, 1987).

For the purposes of the survey, these legal remedies are identified as foreclosure (sheriff's deeds), notice of forfeiture, and voluntary transfer, which include both the deeds in lieu of foreclosure and the non-judicial voluntary foreclosures.

An assumption was made that deeds of land to a creditor, such as a commercial bank or the Federal Land Bank, were transfers made under financial stress. A transfer made to a lending institution named as a trustee was not immediately assumed to be a financially stressed transfer. In these cases, the trustee is often identified as such for an estate or a trust. However, if a trustee subsequently transferred the farmland to a financial institution, this transaction was considered a financially stressed transfer.

In collecting data from each county, the affidavits and notices of forfeiture were first searched. These instruments are recorded in the Recorder's Office in the miscellaneous index, general index, or the land deed index. The respective index was searched and each document read for the legal description.

The next step was to search the transfer book in the Auditor's office. The transfer book records all deeds of land in the county. In addition, the Auditor's Plat was used to identify properly the appropriate tract of transferred farmland. From the transfer book, all foreclosures, non-judicial foreclosures, and deeds in lieu of foreclosure could be found. The search was made for lending institutions as grantees and the column listing the "type of instrument" was searched for Sheriff's deeds. Also, if any of the transferred land had been

subsequently sold (deeded), this was recorded. Generally, transferred land held by a creditor was considered sold when deeded by the creditor to a private individual or corporation, not when deeded or conveyed to another creditor or financial institution.

Once all notice of forfeitures and financially stressed land transfers had been found, a search was made of all real estate contracts to find contract sales of transferred land. Contracts are indexed in one of three possible indices: the miscellaneous, general, or land deed index in the Recorder's Office. The relevant real estate contracts were identified by searching the grantor's column in the appropriate index for both individuals and lending instutitions.

In addition to the above described data, other data were collected. Once a tract of land was identified as transferred due to financial stress and was later identified as sold, the creditor's holding period was recorded.

Also, if available, the Corn Suitability Rating (CSR) was obtained for both land transferred and transferred land sold. The CSR is a standard measure in Iowa of soil productivity [2, p. 1]. Of the 11 counties surveyed, six of the counties were currently using CSRs in assessing their agricultural land for tax purposes. They are Boone, Butler, Dallas, Iowa, Shelby, and Union counties. The CSR data were collected from the County Assessor's Office.

This method of data collection does have a limitation. There are transfers of land due to financial stress between private individuals or family members that are not readily apparent in the public record

unless noted therein. A survey of each grantor in the transfer book for the survey period would overcome the shortcomings of this method of data collection. However, a grantor survey was not undertaken because of time and resource constraints.

CHAPTER V. RESULTS AND ANALYSIS

General Setting

The results of the 11 county survey are presented in Appendices B through L. For each county, the results for the period January 1, 1980 to July 1, 1987 are recorded in four tables.

For analysis purposes, a minimum acreage restriction was imposed. Transferred land less than 10 acres was not included in the results, unless that tract of land involved an individual who had already transferred land to a creditor due to financial stress. Tracts of 10 acres or less were often rural residences.

In assessing the impact of the 10 acre restriction, it was found that this restriction had more impact on the data from the early 1980s than in the later years of the study period. In some cases, removing tracts of transferred land of less than 10 acres was as much as twenty percent of the acres of transferred land in 1981. On the other hand, in 1985, the restriction included less than one percent of the total transferred land.

Table one in each appendix (B-L) gives the financially stressed agricultural land transferred to creditors (grantees) in acres. The table is broken down by year and by creditor. Each year is totaled, as is the total acres transferred to the creditor over the period surveyed. In addition, the dollar value of the land transferred in each year is calculated. The value of land transferred was determined using the county average land value per acre in the respective year,

as reported by the Iowa State University Land Value Survey [4, pp. 11-30].

Table two in each appendix (B-L) provides the same information as table one, except it is broken down by type of transaction: foreclosures, forfeitures, and voluntary transfers. Also, table two provides the total number of financially stressed transactions in each year. This was ascertained by counting the number of documents involving financially stressed transactions. The number of transactions may be less than the number of tracts of land transferred because more than one tract may have been transferred per instrument.

Table three in each appendix (B-L) records the number of acres of financially stressed transferred land sold by each creditor. A dollar amount is calculated for each year's total, along with a record of the total number of sale transactions per year.

Table four in each appendix (B-L) calculates the farmland inventory of each creditor as of July 1, 1987. This is accomplished by subtracting the elements in table three from the same elements in table one. Some of the acreage numbers are negative, which results from a creditor selling more transferred land in a year than was deeded back. By using the 1987 average land value for each county, the total value of farmland in a creditor's inventory was calculated [19, pp. 9-10].

In addition to acreage numbers, the holding period of transferred land is tabulated in table five in each appendix (B-L). The holding period is the length of time a creditor held the land between transfer

and sale. An entry in the table tells the reader the number of sales in a given time frame and year. The table shows how long creditors were holding land in inventory before sale.

The counties of Boone, Butler, Dallas, Iowa, Shelby, and Union all assess their agricultural land for tax purposes by using corn suitability ratings (CSR). CSRs provide a standard by which farmland productivity can be objectively measured. This study used CSRs to measure the productivity of both the transferred land and the transferred land sold, as recorded in tables six and seven, respectively, in each appendix (B-L). The tables record whether the tract of land was above, below, or at the average CSR of the county. Only the average CSR is known for each county; there are no data available on variance or standard deviation of the CSRs in a county [2, p. 4]. Therefore, it is not possible to further stratify the CSR ratings for analysis purposes.

County Results

Table 5.1 is a summary of county survey data. The table shows the transferred acres as a percent of total land in farms, transferred acres sold as a percent of total transferred acres, and inventory as a percent of total land in farms.

The results of each county are unique to its conditions and may differ from the overall expected trend. The following is a discussion of those special circumstances and outcomes in particular counties.

Table 5.1. Summary of county survey data (1/1/80 - 7/1/87)

County	Total transferred acres	Percent of land in farms transferred	Total transferred acres sold	Percent of transferred acres sold	Total inventory acres	Percent of land in farms in inventory
Allamakee	20,286	5.43	8,809	43.42	11,477	3.07
Boone	12,950	3.84	3,178	24.54	9,760	2.89
Butler	21,580	6.11	4,635	21.48	16,945	5.02
Cherokee	12,550	3.53	3,271	26.06	9,279	2.61
Dallas	8,982	2.60	4,121	45.88	4,861	1.41
Davis[a]	29,536	9.51	7,907	26.77	21,629	6.96
Davis[b]	24,590	7.92	5,780	23.50	18,813	6.06
Iowa	19,733	5.46	5,512	27.93	14,220	3.94
Louisa	9,253	3.96	3,123	33.75	6,130	2.63
Shelby	12,851	3.52	4,690	36.50	8,161	2.23
Union	21,812	8.40	8,975	41.14	12,838	4.94
Wright	10,197	2.87	4,482	43.96	5,715	1.61
Average[a]	16,339	5.02	5,337	33.77	11,001	3.39
Average[b]	15,889	4.88	5,143	33.47	10,745	3.31

[a]Includes the transactions of the Exchange Bank Receivership.

[b]Excludes the transactions of the Exchange Bank Receivership.

In Allamakee County in 1980, Village Creek Ranch, Inc. transferred 961 acres to the National Acceptance Company of America. This transaction accounted for 65 percent of the acreage in that year. According to trends in other counties, it is unusual to have this large an amount of acres transferred during the early 1980s. Transferred land in 1981 and 1982 was 276 acres and 542 acres, respectively, a more expected outcome. The National Acceptance Company of America sold the majority of the land in 1981.

Much like Allamakee County in 1980, Boone County in 1982 had a relatively large amount of acres transferred. There were 719 acres transferred by Diamond K Farms, Inc. to Boone State Bank. With the exception of the Diamond K Farms transaction, the early 1980s in Boone County follow the more conventional trend of transfers. In addition, Boone County is affected by the communities of Ames, Boone, and Des Moines, which all provide excellent opportunities for off-farm income and have contributed to a relatively stable county economy.

In Table D.4 in Butler County, the Production Credit Association (PCA) sold a total of a negative 63 acres. This happened due to a transfer of land from the Farmers State Bank to the PCA. The transfer from the bank to the PCA was not recorded as a sale of transferred land because the land was still in a creditor's land inventory.

The results of Dallas County should be viewed keeping in mind the geographic location of the county. The county is bordered on the

east by the Des Moines metropolitan area, with the western suburbs creeping into the eastern part of the county. The close proximity to the metro area positively impacts the farmland values of the county and also provides excellent opportunities for off-farm income.

Davis County's results show a county severely impacted by the agricultural crisis of the 1980s. The results of this county are reported in two different sets of tables because of an unusual situation. In September 1983, the privately held Exchange Bank in Bloomfield was taken over by the State Commissioner of Banking. The bank was not state or nationally chartered, nor were deposits insured by the Federal Deposit Insurance Corporation (FDIC). The bank was collaterallized by the property holdings of the owners, primarily farmland. It received operating capital by pledging the land as security. Consequently, when the bank was closed, all lands were transferred into the Exchange Bank Receivership supervised by the state and the courts.

When reporting the results of the county survey, they are first reported with the land transfers to the Exchange Bank Receivership included. The second set of tables (B) excludes the land transfers to the receivership. Including and excluding transactions of the receivership, there were 29,536 acres and 24,590 acres transferred due to financial stress, respectively. The receivership has been active in the sale of the transferred farmland, so the results of the "transferred land sold" table are also affected.

The selection of Davis County as a county for survey was purely random. The selection of another county in the stratum would presumably not have netted the same outcome. However, the failure of the Exchange Bank was a result of the agricultural crisis and particularly, the fall in land values. Therefore, the results are reported including and excluding the transactions of the Exchange Bank Receivership.

It is difficult to assess accurately the total effect of the failure of the Exchange Bank on the county. The number of acres transferred in 1983, in both sets of tables, is significantly higher than the number in 1984. This result may be because of the failure of the bank, or as a result of the Payment-in-Kind (PIK) program of 1983.

Tables G.4A and G.4B of the Davis County results show a negative 351 acres sold by "Others". The Farm Credit System Capital Corporation (FCSCC) sold 471 acres of farmland in April 1987 it had received from the Production Credit Association (PCA) in 1986. The farmland was transferred to the PCA in February of 1983, and was recorded as sold at the time it was deeded from the creditor to a private individual.

The results of Iowa County are somewhat unexpected considering the closeness to the urban areas of Cedar Rapids and Iowa City. However, the southern two tiers of townships in the county are very rolling and not well-suited for intensive crop production as opposed to the gently rolling farmland of the northern two tiers. Farms in the northern two tiers are better suited to crop production. The

majority of financially stressed transfers were in the southern two tiers of townships.

In Union County, the Federal Land Bank (FLB) was not a major participant during this time; however, the Production Credit Association (PCA) was. There is no readily apparent explanation for the FLB's nonparticipation. It appears from reading the instruments that borrowers were customers of both the PCA and FLB and in financially stressed situations, the PCA became the lead institution.

The surveying of records in Union County was a particular problem because of the condition and accuracy of the records in the transfer book. The county had been undergoing a state audit, due to irregularities with the county budget and tax collections. In order to locate all financially stressed transfers, the search of the transfer book was supplemented with records from the Recorder's Office and a local abstracter.

Table five in each appendix (B-L) contains an evaluation of the holding periods of transferred land sold. On the average, 49 percent of the transferred land was sold within the first six months after being deeded back to a creditor. If the land was not sold within that period, it was usually held in inventory for two years or more before being sold. These results follow the trend that most farmland was transferred due to financial stress during 1985-87, with most of the transferred land sold during 1986 and 1987 when the farmland values began to stabilize. When the state-wide estimates are analyzed, a trend is more evident.

The six counties where CSRs were available were Boone, Butler, Dallas, Iowa, Shelby and Union. Boone, Butler, and Dallas counties have average CSRs above the state average of 62.71, while the average CSR of Iowa, Shelby, and Union counties is below the state average. In those counties with average CSRs above the state average, the CSR of land transferred and transferred land sold was evenly split between land above and below the county average. However, in counties with average CSRs below the state average, there was no pattern. In counties of both above and below the state average CSR, the CSR frequency above or below the county average for transferred land sold was similar to the CSR frequency for farmland transferred.

Farmland transferred during the early part of the 1980s was generally below the average CSR of the county. By 1984, however, the CSRs of land transferred were divided evenly between above and below the average CSR for the county. This result shows that as the agricultural crisis progressed, all types of farmland were transferred.

Results of Stratum Estimation

The main purpose of the estimated strata results was to assist in computing the state estimation and determine whether or not regional differences existed. Generally, the trends and results of each strata mirrored each other. However, where differences arise, they are pointed out in the discussion of each stratum.

The counties surveyed from each stratum were used to calculate the estimates for each agricultural region. The estimates are based

on the county's proportional size to the stratum in terms of the number of acres in farms. Appendix M contains the formulas used in calculating these estimates and their standard errors. The stratum estimations were made for financially stressed agricultural land transfers by lender (grantee), by type of transaction, for transferred land sold, creditor's inventory, and holding period of transferred land sold.

The estimated results of the strata are reported as Northeast Dairy, Eastern Livestock, Cash Grain, Western Livestock, and Southern Pasture (A and B) in Appendices N through R, respectively. A summary of the stratum results is presented in Table 5.2.

Table 5.3 summarizes the results of a statistical analysis determining whether there are statistically significant differences among regions in the number of acres transferred due to financial stress.

This statistical test was done by comparing the county average for each stratum and then, calculating the difference between each region's county average. The standard error of each stratum was calculated from the results of the two or three counties surveyed in each region. A 95 percent confidence interval was constructed around the difference between the two strata's county averages. If the confidence interval contained zero, the difference between the two strata was not statistically significant. However, if the confidence interval did not contain zero, the two strata were determined statistically to be significantly different from each other. When

Table 5.2. Summary of estimated region data (1/1/80 - 7/1/87)

Region	Total transferred acres	Percent of land in farms transferred	Total transferred acres sold	Percent of transferred acres sold	Total inventory acres	Percent of land in farms in inventory
Northeast dairy	369,500	5.77	117,508	31.80	251,992	3.94
Eastern livestock	303,202	4.71	92,113	30.38	211,089	3.28
Cash grain	210,876	3.10	76,934	36.48	133,865	1.97
Western livestock	279,014	3.52	87,255	31.27	191,759	2.42
Southern pasture[a]	541,140	8.95	181,346	33.51	359,794	5.95
Southern pasture[b]	493,020	8.16	160,652	32.59	332,395	5.50

[a]Includes the transactions of the Exchange Bank Receivership.

[b]Excludes the transactions of the Exchange Bank Receivership.

Table 5.3. Confidence intervals used in comparisons of total number of acres transferred between regions[a]

Regions compared	Difference in county means	Standard error	Confidence interval
NE/EL	3505	7467	(-11130, 18140)
NE/CG[b]	8919	2229	(4550, 13289)
NE/WL[b]	6177	939	(4336, 8018)
NE/SP[c]	-7594	5538	(-18448, 3260)
EL/CG	-3133	7684	(-18195, 11928)
EL/WL	2672	7414	(-11859, 17202)
EL/SP	-11099	9206	(-29142, 6944)
CG/WL	-2743	2044	(-6749, 1264)
CG/SP[b]	-16513	5828	(-27936, -5091)
WL/SP	-13771	5466	(-24484, -3058)

[a]NE = Northeast Dairy, EL = Eastern Livestock, CG = Cash Grain, WL = Western Livestock, and SP = Southern Pasture.

[b]Indicates a statistically significant difference.

[c]Southern pasture calculations include the transactions of the Exchange Bank Receivership.

evaluating these results, it is important to look at both the difference in county means and the standard error. The calculations do include the transactions of the Exchange Bank Receivership.

The results of the statistical test show that some areas of the state had a significantly greater number of acres transferred due to financial stress. The tests show that both the cash grain and western livestock regions had a significantly less number of acres transferred than both the northeast dairy and the southern pasture areas. This result implies that the cash grain and western livestock regions experienced a lesser amount of financial stress than both the northeast dairy and the southern pasture regions. The statistical analysis of differences between other regions showed no significant differences.

In addition, the mean corn suitability ratings (CSRs) of the regions were compared for statistically significant differences. The CSRs for the regions are 62.27, 68.58, 73.36, 59.37, and 49.30 for the Northeast Dairy, Eastern Livestock, Cash Grain, Western Livestock, and Southern Pasture regions, respectively. Using Scheffé's method for multiple comparison of means, it was calculated that the CSR for the cash grain region was statistically different at the five percent level of significance from every other region except the eastern livestock area. Also, the southern pasture region was significantly different from all other regions (see Appendix S for calculations and results).

By looking at the results of both statistical tests together, those regions with statistically significantly lower number of acres transferred due to financial stress also had a significantly higher CSR and vice versa; those areas with lower CSRs showed more acres transferred due to financial stress than those with a higher CSR. This was an indication that those areas with higher farmland productivity were better able to weather the agricultural crisis of the 1980s than those of lower farmland productivity.

The following is a region-by-region discussion of the results.

Northeast dairy region

From the results shown in Table 5.2, this region of the state was second in total farmland acres transferred and percentage of land in farms transferred. There may be several reasons for the severe impact on the region.

The land in the northeast dairy region is very hilly and not well-suited to crop production. The top five counties in the state in terms of number of milk cows, cows, and calves born are all in the northeast dairy region [17, pp. 64-66]. Thus, it is a highly concentrated area of livestock production. Dairying is the major agricultural enterprise in the area. Dairying is capital intensive and heavily dependent on government price supports. Since the enactment of the Food Security Act of 1985, there has been great uncertainty over the level of dairy price supports [22]. The Food Security Act of 1985 put in place a mechanism for the lowering of price supports [22, p. 8]. Milk prices received by Iowa dairy

producers peaked in 1984 at $13.20 per hundred weight (cwt). By 1985 and 1986, milk prices per cwt had declined to $12.02 and $12.00, respectively [17, p. 95]. These changes may have contributed to the relatively large number of financially stressed transfers. The survey results from Allamakee and Butler counties support this theory. The number of acres transferred due to financial stress increased significantly from 1984 to 1985 and 1986 (see Appendices B and D).

The major industries in this region that provided opportunities for off-farm employment were also severely impacted by the agricultural crisis of the 1980s. Many of these industries were agricultural related such as Deere & Company, both in Waterloo and Dubuque, which laid-off many employees. The closing of the Dubuque Packing Company in Dubuque and of the Rath Packing Company in Waterloo further contributed to the economic hardship of the region. The economic impact of the packing industry closings extended not only to decreasing opportunities for off-farm income, but also lost markets for farmer's livestock resulting, presumably, in lower prices received.

Eastern livestock region

The eastern livestock region is a mixture of both livestock and cash grain production, much like the western livestock region. This diversity of agricultural enterprises is evidence of the varying farmland in the region. There are several factors that impact land in this region.

Farmland quality varies greatly. Some areas are very flat and well-suited for crop production, while other areas are more rolling

and better suited for livestock production. The CSRs for the region range from 58 to 85. The average CSR for the region is 68.68, as compared to 62.71 for the state [2, p. 3]. Almost 75 percent of the land in farms in the region is harvested for crops [17, p. 37]. In addition, this region is consistently ranked second among the regions in livestock numbers and marketings [17, pp. 49, 63]. These facts point out the agricultural diversity of the region, as noted in the discussion of the survey in Iowa County.

This region contains two of the state's largest urban areas, Linn and Scott Counties. The farmland values in these areas are positively impacted by the urban pressure. For several years, Scott County had the highest valued farmland in the state. Land in the county was valued at more than $3,000 per acre from 1979 to 1982 [4, p. 27]. These high values may have sustained farmers longer financially because of their ability to refinance or to sell the land. On the other hand, some farmers may have overextended by acquiring too much debt to finance overvalued land.

The cash grain prices in this region are historically higher as compared to other regions of the state because of the close proximity to the Mississippi River [17, pp. 96-97]. The ability to market grain and soybeans to river terminal markets reduces transportation costs, which translates into higher cash grain prices and, presumably, higher land values.

Cash grain region

In terms of farmland acres transferred, the cash grain region experienced the least financial stress of any agricultural area of the state. This region had the lowest number of acres and percent of land in farms transferred due to financial stress. Further, in the cash grain region, the largest percent of transferred acres was sold by creditors.

This area of the state contains some of the state's best soil, which is shown by the highest Corn Suitability Rating (CSR) of the five agricultural regions. The average CSR for the cash grain region is 73.36 [2, p. 3]. As noted earlier, there appears to be a correlation between the CSR of a region and the total number of acres transferred due to financial stress. This correlation is exemplified in the cash grain region.

Further, the cash grain region of the state is distinguished from the other regions by its heavy dependence on cash grain. In comparing the five agricultural regions of the state, this region is number one in soybean production and number two in corn production. In terms of livestock numbers and marketings, this area ranks last or next to last [17, pp. 17, 27, 37, 49, 63].

It might be assumed that this region experienced severe financial stress during the study period due to heavy dependence on cash grain and the low grain prices of the 1980s. However, U.S. farm programs are aimed at stabilizing the agricultural economy by supporting feed and coarse grain prices through deficiency payments and loan programs.

Iowa farmers began receiving significant government payments in 1983 ($925.9 million). Large government payments continued after 1983 as compared to previous years. In 1984-86, these payments were $742.8, $691.1, and $1,161.0 million, respectively [17, p. 89]. Thus, more income protection is afforded cash grain producers than livestock producers. It is hypothesized that one of the reasons the impact of the agricultural crisis of the 1980s was less on this region of the state, as shown by the results, was the influence of government programs.

The impact of the farm programs is best shown in this region when comparing the number of transferred acres in 1982-84. In 1983, there was a dip in the number of transferred acres, as compared to either 1982 or 1984. 1983 was the year of the Payment-in-Kind (PIK), where farmers were paid with grain to idle acres according to their corn base. The PIK program provided grain farmers with grain which could be converted into cash for the servicing of debt.

Further, the full impact of the 1983 drought was not felt in the cash grain region. In 1983, the north central crop reporting district received 40.29 inches of rain versus 33.30 inches in the south central crop reporting district. More importantly, in July, the north central district received 2.61 inches as opposed to only 0.56 inches for the south central district during the critical pollination period of corn [12, p. 6].

The impact of the 1983 drought is further emphasized by comparing 1983 corn yields to the average. In 1983, the north central crop reporting district showed an average of 101 bushels per acre of corn,

as compared to an average of 124 bushels per acre for the period 1980 to 1988. The south central crop reporting district yielded only 47 bushels per acre of corn in 1983, almost half of the average yield (95 bushels per acre) for the same period 1980 to 1988 [17, pp. 16-17]. It could be concluded that the cash grain region was able to produce a good crop and take advantage of the higher grain prices of 1983.

It is hypothesized that the good soils, the availability of federal assistance, and the lessened impact of the 1983 drought may have contributed to a relatively healthy region financially during the agricultural crisis of the 1980s. Therefore, the number of farmland acres transferred due to financial stress in the region was small compared to the other four regions of the state.

Western livestock region

The western livestock region contained the largest number of acres of land in farms of all the regions. However, the region experienced a relative small amount of financial stress as measured by the total number of acres transferred and percent of total land in farms transferred as compared to other regions of the state.

Recognizing that the region is the largest in terms of land in farms, it has more cropland harvested, corn production, hogs marketed, numbers of cattle/calves, and fed cattle marketed than any of the other four regions of the state [17, pp. 17, 27, 37, 49, 63]. More importantly, these statistics point out the agricultural diversity of the region. Thus, this part of the state is not entirely dependent on one agricultural enterprise for financial stability.

Southern pasture region

The results for this region are contained in Appendix R and are divided into two sets (A and B). This is the same division as used in the reporting of the survey results of Davis County. The "A" set of tables includes the transactions of the Exchange Bank of Bloomfield, while the "B" set excludes these transactions. The reader is referred to the previous section for more details.

Much, but not all, of the farmland in this region is rolling and not well-suited for row crop production. The southern pasture region leads the state in beef cow numbers [17, p. 63]. Three of the top five counties in the state in terms of beef cow numbers are in the southern pasture region [17, p. 65]. The region is second only to the northeast in the number of calves born [17, p. 61]. It follows that cow/calf operations are the predominant agricultural enterprise. The poorer land of this area limits its productivity and the diversity of the agriculture. As expected, this region experienced severe financial stress as measured by total acres transferred.

A large amount of farmland was transferred beginning in 1982 in the southern pasture region; by comparison, in the other four regions, large amounts of farmland did not begin to be transferred until 1984. Thus, the effects were noted in the southern pasture region two years before the rest of the state began to experience the effects of the agricultural crisis. The low productivity of the land may be a major factor. The CSR for the region is 49.30, while the state average is 62.71 [2, p. 3].

Another possible contributing factor may be that during 1983 the southern portion of the state did not receive moisture during the critical times of the growing seasons [12, p. 6]. The lack of precipitation further reduced the productivity of the land. This is evidenced by a 1983 corn yield of 47 bushels per acre, which is only 49 percent of the average yield from 1980 to 1988. To emphasize the impact of the 1983 drought on this area, the state, on average, produced 73 percent of the average corn yield for the same period. These factors may have increased the effects and accelerated the impacts of the agricultural crisis on this region.

Results of State-Wide Estimation

This section presents the results and a discussion of the state-wide estimations by table. As before, each set of tables has an "A" and a "B" table. The "A" table is the estimation including the land transactions of the Exchange Bank Receivership. The "B" set of tables excludes these transactions. In presenting the results, the discussion focuses on the results including the transactions of the Exchange Bank Receivership unless there are significant differences. At the county level, these differences were more pronounced. However, at the state level, these differences become less significant as each stratum's results are combined.

Tables 5.4A and 5.4B show the estimated acres of financially stressed transferred land by year and lender. In addition, Figure 5.1 shows the results of Table 5.4A in graphic form. As shown,

Table 5.4A. Estimates of financially stressed agricultural land transfers in Iowa by lender/grantee including the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983
Commercial banks	4,246	2,701	19,925	67,736
Farmers Home Administration (FmHA)	0	0	4,511	2,524
Federal Land Bank (FLB)	68	0	0	3,181
Individuals (real estate contracts)	7,078	9,427	18,241	17,153
Insurance companies	0	0	0	2,406
Production Credit Association (PCA)	0	1,423	13,742	31,460
Others	8,232	0	378	198
Total number of acres	19,624	13,550	56,797	124,660
Percent of land in farms	0.06	0.04	0.17	0.37
Estimated value (millions of dollars)	$28.082	$23.308	$87.768	$146.494

[a]1/1/87 - 7/1/87.

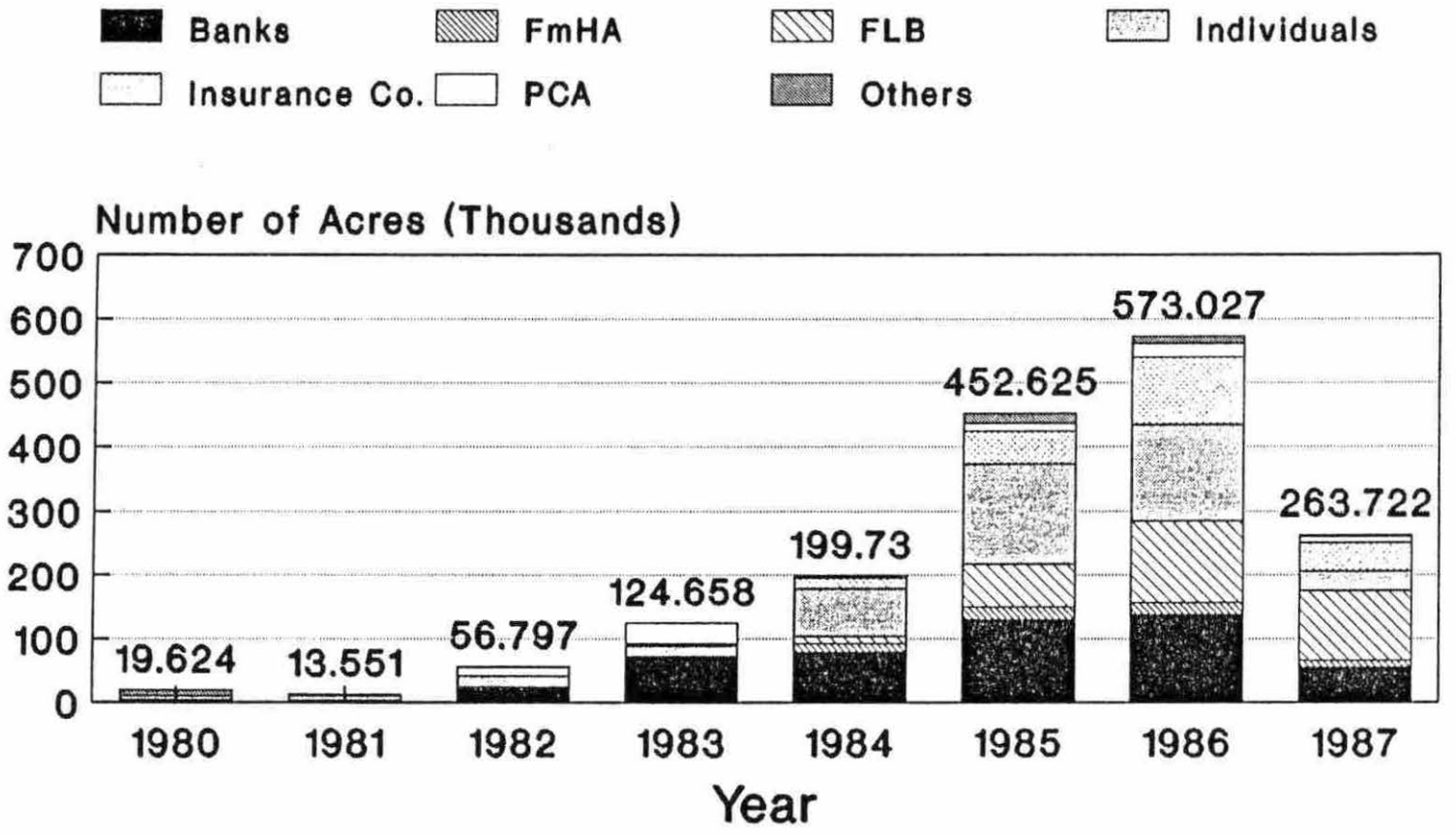
1984	1985	1986	1987[a]	Total
79,314	129,604	138,408	55,392	497,327
14,122	20,840	18,754	10,976	71,727
10,226	66,433	128,426	109,227	317,561
75,795	157,314	150,920	30,758	466,687
16,513	51,144	104,029	45,252	219,343
3,760	11,599	21,767	10,049	93,798
0	15,691	10,723	2,068	37,290
199,730	452,623	573,027	263,721	1,703,732
0.59	1.35	1.71	0.78	5.07
$238.787	$377.025	$425.227	$204.631	$1,531.321

Table 5.4B. Estimates of financially stressed agricultural land transfers in Iowa by lender/grantee excluding the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983
Commercial banks	4,246	2,701	19,925	65,355
Farmers Home Administration (FmHA)	0	0	4,511	2,524
Federal Land Bank (FLB)	68	0	0	3,181
Individuals (real estate contracts)	7,078	9,427	18,241	17,153
Insurance companies	0	0	0	2,406
Production Credit Association (PCA)	0	1,423	13,742	31,460
Others	8,232	0	378	198
Total number of acres	19,624	13,550	56,797	122,279
Percent of land in farms	0.06	0.04	0.17	0.36
Estimated value (millions of dollars)	$28.082	$23.308	$87.768	$144.310

[a]1/1/87 - 7/1/87.

1984	1985	1986	1987[a]	Total
69,802	104,222	137,169	45,786	449,206
14,122	20,840	18,754	10,976	71,727
10,266	66,433	128,426	109,227	317,561
75,795	157,314	150,920	30,758	466,687
16,513	51,144	104,029	45,252	219,343
3,760	11,599	21,767	10,049	93,798
0	15,691	10,723	2,068	37,290
190,219	427,242	571,787	254,116	1,655,612
0.57	1.27	1.70	0.76	4.93
$231.711	$363.420	$424.681	$200.069	$1,503.349



Notes: 1) 1987 is for 1/1/87 - 7/1/87
2) includes transactions of the Exchange Bank Receivership

Figure 5.1. Financially stressed agricultural land transfers in Iowa by lender (estimated)

it is estimated that more than 1.7 million acres of agricultural land with an estimated value of $1.53 billion were transferred due to financial stress from January 1, 1980 to July 1, 1987. The 1.7 million acres were 5.07 percent of all land in farms in the state.

The percentage shown in Tables 5.4A and 5.4B is percent of land in farms. The percent of land in farms is defined as the number of acres transferred per year as a percent of the total acres in farms in Iowa.

Further, Tables 5.5 and 5.6 show the results of a statistical analysis of the estimated differences of the total number of acres transferred between financial institutions and between acres transferred per year. The purpose of the analysis was to determine if there were statistically significant differences between the number of acres transferred to individual financial institutions and the years of the survey period.

This statistical analysis was accomplished with the creation of a new variable. This variable equalled the difference between the two characteristics being compared. For example, the variable would equal the difference between the number of acres transferred to commercial banks and the Farmers Home Administration in Allamakee County. The next step was to calculate every possible pair of differences for each county. Using the new variables created for each county, the variables were then estimated for each stratum using the estimation procedure outlined in Appendix M. In addition, the variance and standard error were calculated. Each stratum's estimated difference

Table 5.5. Comparison of differences of estimates of total number of acres transferred in Iowa between financial institutions[a]

Financial institutions compared	Estimated difference	Standard error	Confidence interval
CB/FmHA[b]	46000.43	14427.39	(17729.73 , 74285.13)
CB/FLB	12834.41	11666.96	(-10032.80 , 35701.66)
CB/Ind	4387.38	4959.94	(-5334.10 , 14108.86)
CB/Ins[b]	30219.72	10416.75	(9802.89 , 50636.55)
CB/PCA[b]	43726.46	12465.30	(19294.46 , 68158.46)
CB/Oth[b]	49593.84	14852.53	(20482.87 , 78704.80)
FmHA/FLB[b]	-27453.80	9229.09	(-45542.80 , -9364.80)
FmHA/Ind[b]	-41620.00	14677.39	(-70387.70 , -12852.30)
FmHA/Ins[b]	-15787.70	6837.51	(-29189.20 , -2386.19)
FmHA/PCA	-2280.97	3242.45	(-8636.16 , 4074.23)
FmHA/Oth	3586.41	3113.97	(-2516.97 , 9689.79)
FLB/Ind	-14103.10	12998.82	(-39580.70 , 11374.59)
FLB/Ins	11666.10	7917.18	(-3851.56 , 27183.77)
FLB/PCA[b]	25172.84	10198.94	(5182.91 , 45162.78)
FLB/Oth[b]	33241.28	10297.09	(13058.97 , 53423.58)
Ind/Ins[b]	25832.06	12155.35	(2007.56 , 49656.56)
Ind/PCA[b]	39339.08	12918.48	(14018.86 , 64659.31)
Ind/Oth[b]	45206.46	15449.67	(14925.09 , 75487.83)
Ins/PCA	13506.73	6914.15	(-44.99 , 27058.47)
Ins/Oth[b]	19374.11	7247.53	(5168.95 , 33579.28)
PCA/Oth	5867.38	4236.25	(-2435.67 , 14170.43)

[a]CB = Commercial Banks, FmHA = Farmers Home Administration, FLB = Federal Land Bank, Ind = Individuals, Ins = Insurance Companies, PCA = Production Credit Association, Oth = Others.

[b]Indicates a statistically significant difference.

Table 5.6. Comparison of differences of estimates of total number of acres transferred in Iowa between years

Years compared	Estimated difference	Standard error	Confidence interval
80/81	49.84	1161.68	(-1727.06 , 2826.73)
80/82	-4277.20	2536.45	(-9248.63 , 694.24)
80/83	-10786.00	5755.33	(-22066.50 , 494.38)
80/84	-19394.90	6611.87	(-32354.10 , -6435.65)
80/85	-46110.10	14487.93	(-74506.50 , -17713.80)
80/86	-50758.10	17821.99	(-85689.20 , -15827.00)
80/87	-54160.60	17833.45	(-89114.10 , -19207.00)
81/82	-5310.76	2535.45	(-10280.20 , -341.29)
81/83	-11819.60	5497.83	(-22595.30 , -1043.90)
81/84	-20428.40	6639.41	(-33441.70 , -7415.24)
81/85	-47143.70	14601.25	(-75762.10 , -18525.20)
81/86	-51791.60	18154.89	(-87375.20 , -16208.00)
81/87	-55194.10	17934.83	(-90346.40 , -20041.90)
82/83	-6508.87	9643.21	(-16152.00 , 3134.34)
82/84	-15176.70	4843.35	(-24669.70 , -5683.78)
82/85	-41832.90	13547.83	(-68386.00 , -15279.10)
82/86	-56081.60	16213.92	(-87860.90 , -24302.30)
82/87	-49883.40	17308.53	(-83808.10 , -15958.60)
83/84	-8608.83	4404.96	(-17242.50 , 24.89)
83/85	-3524.00	10774.99	(-56443.00 , -14205.00)
83/86	-49572.70	15247.38	(-79457.60 , -19687.90)
83/87	-41265.70	14298.80	(-69291.30 , -13240.00)
84/85	-26715.20	9758.64	(-45842.10 , -7588.32)
84/86	-40963.10	12447.51	(-65360.30 , -16566.00)
84/87	-34765.70	14420.56	(-63030.00 , -6501.39)

[a]Indicates a statistically significant difference.

Table 5.6. Continued

Years compared	Estimated difference	Standard error	Confidence interval
85/86	-14248.70	8350.84	(-30616.30 , 2118.95)
85/87	-8050.45	7480.40	(22712.00 , 6611.12)
86/87	6198.25	11591.48	(-16521.00 , 28917.55)

was then added together to produce the state estimated differences. Also, each variable's variance in the stratum was used to calculate an overall standard error.

Using the estimated standard error, a 95 percent confidence interval was created around the estimated state difference of the desired characteristic. If the confidence interval contained zero, the difference between the two characteristics was considered not statistically significant. However, if the confidence interval did not contain zero, the difference between the characteristics was considered statistically significant. Again, when evaluating these results, it is important to look at both the estimated differences and the standard error. This statistical test was also done for differences in the number of transferred acres between type of transaction and agricultural land inventory of financial institutions. These results are discussed below.

The results of the statistical testing of the differences in the number of acres transferred to financial institutions are shown in Table 5.5. The results clearly show each financial institution falling into one of two groups, with the exception being insurance companies. Commercial banks, the Federal Land Banks, and individuals received the largest amounts of agricultural land, while Farmers Home Administration, Production Credit Associations, and others received a significant less number of acres of financially stressed farmland.

As stated above, insurance companies did not fall into either group. Insurance companies received significantly less than the

largest receivers of financially stressed farmland, except in the case of the Federal Land Bank. As compared to the smallest receivers of financially stressed farmland, insurance companies were not significantly different, except in the case of the "others" category. Insurance companies were not active lenders in every county and, therefore, their receipt of agricultural land under financial stress varied from county to county. This fact may explain why insurance companies did not fit into either group.

Table 5.6 shows a comparison of the differences in the number of acres transferred between years. The year 1987 was included in this test by doubling the number of acres transferred in the first half of the year. This was done so it would be possible to include 1987 in the test.

This assumption was based on data collected for the entire year of 1987 for seven of the 11 counties surveyed. Since the survey began in mid-1987, data for the entire year were not available and thus, all counties are reported for just the first half of 1987. However, data collection continued into 1988. Therefore, data from seven counties were available for all of 1987. Differences in number of acres transferred during the first half of 1987 and the entire year of 1987 varied from a 16 percent increase to a 136 percent increase. The assumption of doubling all of the counties' first half of 1987 results appeared to be reasonable for purposes of statistical analysis.

The results indicate a grouping of the years 1980-82, 1983-84, and 1985-87. The years 1985, 1986, and 1987 were significantly different from every other year in the 1980s, an indication that this

was the period of greatest financial stress among farmers.

The subsequent discussions focus on the reasons for differences in lenders' participation during this time and differences between the years.

As alluded to above, the data indicate a general trend of increasing acreage transferred due to financial stress during the 1980s. In the early 1980s, there was a relatively small number of acres transferred due to financial stress, but as the decade progressed, more and more acres were being transferred.

Murray and Brown described three rather distinct periods of foreclosures in Farm Land and Debt Situation in Iowa, 1935 [11]:

> In the first, from 1915 through 1920, foreclosures were almost unheard of. These were the years of high prices for farm products, the period of farm prosperity. In the second period, from 1921 through 1930, foreclosures averaged about 1,500 per year or 15 to a county. This was the period of second mortgage depression, the years when prices were not sufficient to provide interest on second mortgages and also on first mortgages where the land was greatly overvalued. Finally, we come to the third period, from 1931 to date. In this period, a further drop in prices of farm products brought on a first mortgage depression. While in the twenties, the liquidation involved, for the most, owners who had bought during the land boom without much cash, the depression of the thirties caused widespread default by owners who had paid down substantial sums on their land but who were caught by the drastic drop in prices [11, pp. 16-17].

The 1980s could be split into 1980-82, 1983-84, and 1985-87 as the first, second and third periods, respectively. From 1980 to 1982, the survey results show a relatively small amount of land transferred to creditors, with the exception of the southern pasture region. The

counties surveyed in this region showed a large number of acres being transferred due to financial stress beginning in 1982. As noted earlier, farmland values peaked in 1981.

In 1983 and 1984, farmland transferred due to financial stress increased over the entire state. The third period from 1985 forward showed the most financial stress as measured by the number of acres transferred due to financial stress. The increasing amount of farmland being transferred due to financial stress during these periods corresponds to further decreases in farmland values and commodity prices.

The major difference between the era of the Great Depression of the 1930s and the agricultural crisis of the 1980s is that the land transfers of the 1980s occurred in a shorter time frame than the twenty-year time period of 1915 to 1935. This is evidenced by the change in land sale prices and values during both time periods. From the time that land sale prices peaked in 1920 at $289.29 per acre, there was a 76 percent decline over 13 years [11, p. 32]. In the 1980s, a slightly smaller percentage decline (63.3 percent) occurred in less than half the time. This being the case, farmers and lenders had less time to adapt to the rapidly changing economic conditions.

Each creditor's participation in financially stressed land transfers varied by year and by number of acres. Commercial banks and individuals were major participants from 1980 through 1987, while the farm credit banks (Federal Land Bank and Production Credit Association) and insurance companies were not heavily involved until 1985.

In 1985, the number of acres being transferred to the farm credit banks and insurance companies may have risen because of several factors. Tim Jackson, former attorney for the Rural Concern Hotline in Iowa, provided insight into why this occurred [8]. As stated above, farm credit banks and insurance companies were visibly absent as receivers of agricultural land due to financial stress as compared to other financial institutions. Both the Federal Land Bank and insurance companies, as long-term lenders on real estate, do not have the day-to-day contact with their borrowers as do short-term lenders such as commercial banks. This type of lender/borrower relationship of the Federal Land Bank and insurance companies may have delayed the realization of financial stress among their borrowers and thus, their reaction to the situation until 1985 [8].

Changes in Iowa law effective May 30, 1986 requiring mandatory mediation of foreclosure actions may have influenced the actions of the Federal Land Bank and insurance companies. The Federal Land Bank was an active participant in mediation, while insurance companies were not. The advent of mediation brought a number of mediation requests from the Federal Land Bank [8]. The large number of mediation requests indicated they may have been holding a number of adverse actions against borrowers for a period of time and felt this was a means of collecting on delinquent loans. As later discovered, mediation was unable to handle the volume first encountered and to produce the results desired by the Federal Land Bank. However, the mediation process provided a structure for each party to work out a financial plan. The passage of

the mandatory mediation provisions may have further concentrated debtor/creditor activities during this time [8].

As the survey began, it was hypothesized that the Federal Land Bank, insurance companies, and the Farmers Home Administration would be transferred more acres under financial stress than other lenders because they are long-term real estate lenders. However, commercial banks (29.19 percent), individuals (27.39 percent), and the Federal Land Bank (18.64 percent) were the creditors to whom were deeded the largest number of acres. Also, these results are somewhat unexpected when compared to the percentage of Iowa farm real estate debt held by each creditor. As of January 1, 1986, individuals and others, the Federal Land Bank, and commercial banks held 39.6 percent, 33.9 percent, and 8.8 percent, respectively. Farmers Home Administration and life insurance companies held 6.2 percent and 11.5 percent of the farm real estate debt, respectively [17, p. 93]. It would be expected that the amount of real estate debt held would correspond with the acres transferred to a lender.

Further, the fact that commercial banks were the grantees of the largest amount of transferred land is surprising when considering they are the lender of operating capital rather than long-term credit for real estate. The fact that individuals are second in number of transferred acres is not unexpected considering the percent of real estate debt held and the many land purchases made by real estate contract during the late 1970s and early 1980s.

The results of this study contrast with Murray's findings on foreclosures from 1915 to 1936. He found that individuals and insurance companies were one and two in percentage of foreclosed mortgages during the period 1915 to 1936 [10, p. 255]. It should be noted that the Federal Land Bank was in its formative years during this time period. The Federal Land Bank was created as a lending institution in 1916, began lending activities in 1917, and was inactive for 10 months in 1920 and 1921 because of a legal test of their constitutionality. Consequently, it was not until 1922 that the Federal Land Bank became an active lending institution [10, p. 258].

In Farm Mortgage Foreclosures in Southern Iowa, 1915-1936 [10], Murray offers a possible reason for why a particular lender is more apt to acquire more transferred land than another. He suggests that first mortgage lenders, such as the Federal Land Bank, were more conservative in their lending practices due to obligations to bondholders and their operating regulations. Further, he suggests that individuals and commercial banks were willing to finance more of the purchase than first mortgage lenders and take second mortgages. Therefore, banks and individuals with second mortgages and large first mortgages were the lenders which felt the crisis first [10, p. 258].

This reasoning appears to hold for the crisis of the 1980s as it did for the depression of the 1930s. In the agricultural crisis of the 1980s, commercial banks and individuals felt the crisis first, and continued to be major recipients of financially stressed agricultural land throughout this period. By 1987 it appears that commercial banks

and individuals had worked through much of their borrowers' financial difficulties. However, other lenders, particularly the Federal Land Bank, were still receiving large amounts of financially stressed farmland. This is an indication that these lenders and their borrowers had not worked through all their financial difficulties.

The Production Credit Associations and Farmers Home Administration were relatively minor participants during the farm crisis of the 1980s. Production Credit Associations, as a branch of the farm credit system, lends operating capital. The Federal Land Bank, another farm credit system institution, was the lender on farmland and, therefore, received most of the transferred real estate. The "Others" category included private credit institutions other than commercial banks, such as private commercial companies and the Farm Credit System Capital Corporation, which were not receivers of large amounts of farmland during the farm crisis of the 1980s.

In the case of the Farmers Home Administration, their ability to take adverse action against their farmer/borrowers was enjoined by federal court action. In Coleman v. Block, 562 F. Supp. 1353 (D.N.D. 1983) and subsequent injunctions under Coleman, the Farmers Home Administration was enjoined from loan acceleration, repossession of chattels, demanding voluntary transfer in lieu of foreclosure, terminating planned releases of farm production income necessary to pay living and operating expenses, and foreclosure unless the defaulting borrower received at least 30 days notice. The Farmers Home Administration was slow to respond to the directives under Coleman

to issue regulations for taking adverse action against their farmers/borrowers [25, p. 4]. Consequently, during this entire period, a small number of acres was transferred to the Farmers Home Administration under financial stress mainly due to the uncertainty of the situation.

The next set of tables (Tables 5.7A and 5.7B) breaks down the transferred acres by year and by type of transfer, foreclosure, forfeiture, and voluntary transfer. In addition, these tables break out the number of transactions of transferred land per year. A graphical form of Table 5.7A is shown in Figure 5.2.

Futher, Table 5.8 shows the results of the statistical significance testing of the differences between the types of transactions used to transfer farmland to a creditor. It was hypothesized that the number of acres transferred under each type of transaction differed significantly from every other type.

Voluntary transfers accounted for 59.03 percent (1,005,690 acres) of the financially stressed transfers during the survey period. Forfeitures and foreclosures were only 25.42 percent (433,112 acres) and 15.55 percent (264,930 acres) of the transactions, respectively. The statistical significance testing of these results showed each category to be significantly different from each other.

Over the survey period, the percentages of the total farmland transferred per category remained fairly constant. In addition, the results of this survey did not show any difference in the trend in the method of transfer after changes in Iowa law with regard to mandatory

Table 5.7A. Estimates of financially stressed agricultural land transfers in Iowa by type of transaction including the transactions of the Exchange Bank Receivership (acres)

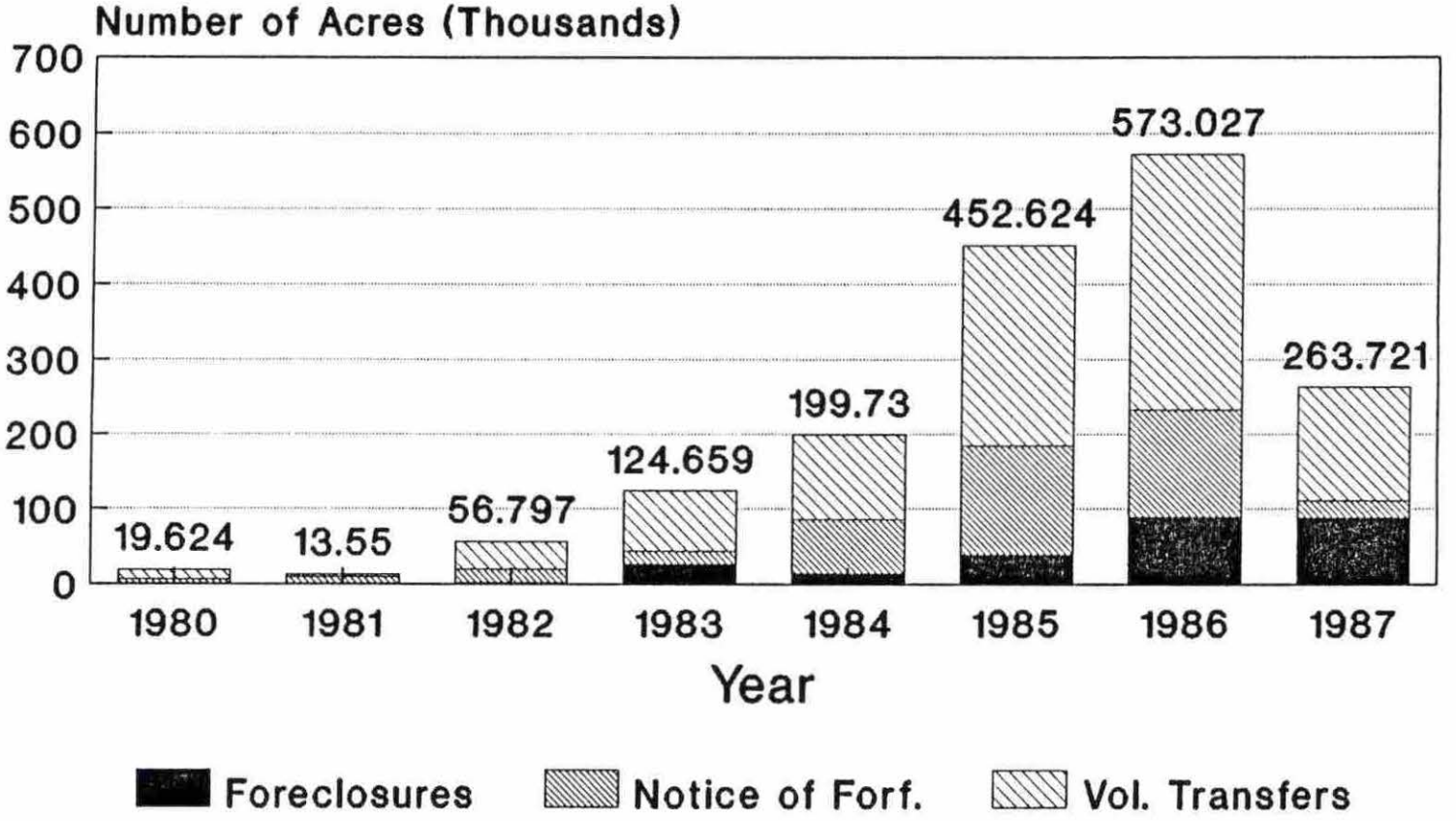
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	1,687	2,615	26,827	15,051	40,004	89,875	88,871	264,930
Notice of forfeitures	7,078	7,973	18,241	16,981	71,696	145,488	143,292	22,363	433,112
Voluntary transfers	12,546	3,890	35,941	80,851	112,983	267,132	339,860	152,487	1,005,690
Total number of acres	19,624	13,550	56,797	124,660	199,730	452,623	573,027	263,721	1,703,732
Total number of transactions	138	196	458	632	1,409	2,340	3,533	1,469	10,173

[a]1/1/87 - 7/1/87.

Table 5.7B. Estimates of financially stressed agricultural land transfers in Iowa by type of transaction excluding the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	1,687	2,615	26,827	14,962	40,004	89,875	88,871	1,254,842
Notice of forfeitures	7,078	7,973	18,241	16,981	71,696	145,488	143,292	22,363	433,112
Voluntary transfers	12,546	3,890	35,941	78,470	103,561	241,750	338,621	142,882	957,660
Total number of acres	19,624	13,550	56,797	122,279	190,219	427,242	571,787	254,116	1,655,613
Total number of transactions	138	196	458	612	1,379	2,320	3,513	1,459	10,075

[a] 1/1/87 - 7/1/87.



Notes: 1) 1987 is for 1/1/87 - 7/1/87
2) includes transactions of the Exchange Bank Receivership

Figure 5.2. Financially stressed agricultural land transfers in Iowa by type of transaction (estimated)

Table 5.8. Comparison of differences of estimates of total number of acres transferred in Iowa between types of transactions[a]

Type of transactions compared	Estimated difference	Standard error	Confidence interval
For/NOF[b]	-18051.00	9069.07	(-35826.40 , -275.70)
For/VT[b]	-82248.40	24229.61	(-129738.00 , -34758.30)
NOF/VT[b]	-64197.30	19607.45	(-102627.00 , -25766.70)

[a]For = foreclosure, NOF = Notice of Forfeiture, and VT = Voluntary Transfer.

[b]Indicates a statistically significant difference.

mediation and a moratorium on foreclosures. The moratorium on foreclosures was for a farmer whose loan(s) had been accelerated and was facing foreclosure. Under the moratorium, a farmer was given two years to bring the interest on the loan(s) current or to find alternative financing. The moratorium's purpose was to provide farmers in financial difficulty time to reach agreement with their lender [8].

Differences between the individuals and forfeiture categories in Tables 5.4 and 5.7 resulted from the fact that some individuals chose foreclosure action or simply a deed in lieu of foreclosure rather than a forfeiture action against the land owners. From the survey results, it was observed that a foreclosure action between individuals occurred when a corporation and other creditors were involved. Deeds in lieu of foreclosure between individuals were not commonly found unless specifically noted.

As stated earlier, the majority of transfers of agricultural land due to financial stress were voluntary transfers. Even though these transfers are labeled voluntary, they are often the result of some action between creditor and debtor. These voluntary transfers may have been the result of a willingness of both creditor and debtor to resolve their mutual financial problems or action taken by the debtor to avoid further creditor intervention.

The majority of voluntary transfers were deeds in lieu of foreclosure rather than transfers under the voluntary nonjudicial foreclosure procedure. Nonjudicial foreclosure was a relatively new

procedure in Iowa. The procedure did not provide any new tools for lenders or borrowers in working out a financial plan not already available under the law. However, the law did provide two incentives for parties to work out a plan: (1) the debtor agreed to convey property to the creditor with a waiver of the creditor's right to a deficiency judgment; and (2) the redemption period was reduced from one year to 30 days. The transfer book in each county specifically labelled those transactions that were nonjudicial foreclosures.

Tables 5.9A and 5.9B show the estimated number of acres of the transferred land sold by each creditor, the number of sales per year, and the dollar value. The results of Table 5.9A are also shown graphically in Figure 5.3. During the survey period, 555,157 acres of transferred land were sold by creditors, about one-third of the total transferred acres. The estimated value of transferred land sold was $459.3 million. The table also shows the number of acres sold each year calculated as a percent of the total number of transferred acres sold.

Each year (1980 through 1986), the total number of acres sold increased as the total number of acres transferred to lenders increased. This may have resulted because of two factors. As farmland values bottomed during 1986 and 1987, the purchase of farmland may have become more attractive. This is evidenced in the survey by an increase in sale activity in 1986 and in the first half of 1987. Secondly, this trend may point to an improving farm economy and an increasing interest to invest capital in agriculture by the purchase of

Table 5.9A. Estimates of financially stressed transferred agricultural land sold in Iowa including the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982
Commercial banks	206	2,422	2,728
Farmers Home Administration (FmHA)	0	0	1,176
Federal Land Bank (FLB)	0	0	0
Individuals (real estate contracts)	1,557	909	6,996
Insurance companies	0	0	0
Production Credit Association (PCA)	0	0	0
Others	0	8,003	378
Total number of acres	1,772	11,333	11,278
Percent of transferred acres	9.03	83.64	19.86
Estimated value (millions) of dollars)	$2.313	$16.100	$17.286
Number of transactions	16	51	156

[a]1/1/87 - 7/1/87.

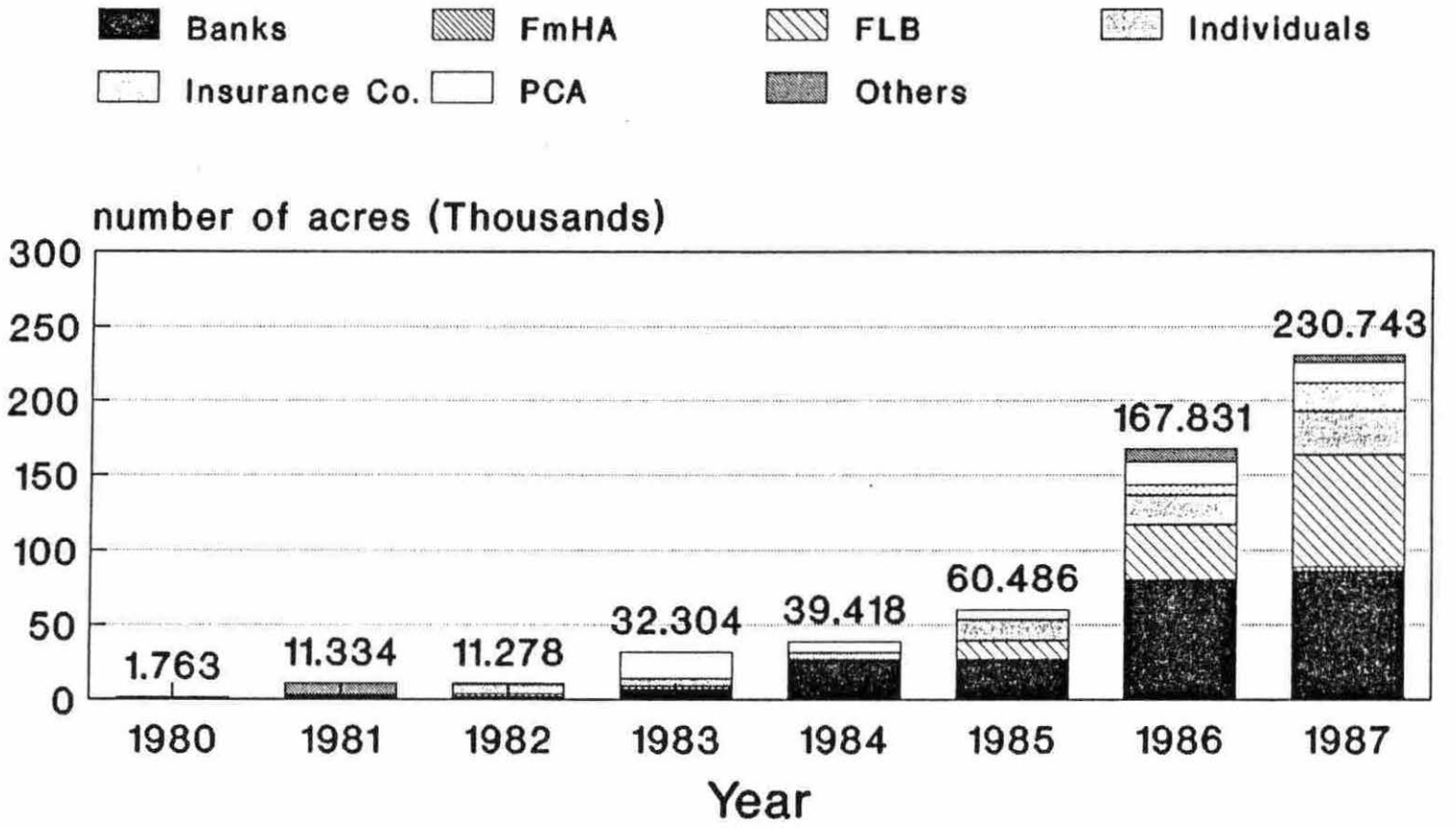
1983	1984	1985	1986	1987[a]	Total
7,497	25,956	26,992	81,004	86,488	233,292
1,626	689	778	0	3,036	7,304
510	645	11,898	35,957	74,269	123,279
5,545	4,949	14,626	20,116	29,131	83,829
0	0	10	6,497	18,573	25,080
17,126	6,981	6,182	15,337	13,955	59,582
0	198	0	8,920	5,291	22,790
32,304	39,419	60,486	167,830	230,743	555,157
25.91	19.74	13.36	29.29	87.50	32.58
$40.209	$41.513	$49.712	$113.201	$179.008	$459.345
312	453	760	1,531	1,913	5,192

Table 5.9B. Estimates of financially stressed transferred agricultural land sold in Iowa excluding the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982
Commercial banks	206	2,422	2,728
Farmers Home Administration (FmHA)	0	0	1,176
Federal Land Bank (FLB)	0	0	0
Individuals (real estate contracts)	1,557	909	6,996
Insurance companies	0	0	0
Production Credit Association (PCA)	0	0	0
Others	0	8,003	378
Total number of acres	1,762	11,333	11,278
Percent of transferred acres	8.98	83.64	19.86
Estimated value (millions of dollars)	$2.313	$16.100	$17.286
Number of transactions	16	51	156

[a]1/1/87 - 7/1/87.

1983	1984	1985	1986	1987[a]	Total
7,497	23,490	25,866	69,234	81,154	212,598
1,626	689	778	0	3,036	7,304
510	645	11,898	35,957	74,269	123,279
5,545	4,949	14,626	20,116	29,131	83,829
0	0	10	6,497	18,573	25,080
17,126	6,981	6,182	15,337	13,955	59,582
0	198	0	8,920	5,291	22,790
32,304	36,953	59,361	156,060	225,410	534,462
26.42	19.43	13.89	27.29	88.70	32.28
$40.209	$39.674	$49.109	$108.022	$176.475	$449.190
312	414	721	1482	1874	5026



Notes: 1) 1987 is for 1/1/87 - 7/1/87
2) includes transactions of the Exchange Bank Receivership

Figure 5.3. Financially stressed transferred agricultural land sold in Iowa (estimated)

agricultural land.

Some creditors were more aggressive than others in the selling of their farmland inventory. As shown in Table 5.5A, commercial banks had sold 42.02 percent of their land holdings as of July 1, 1987. However, the number of acres of farmland in inventory sold varied greatly from bank to bank. The remaining creditors on the average had only sold approximately 10 percent of their farmland inventory.

The aggressive selling of transferred agricultural land by commercial banks may be attributed to several factors. In tracking sales of transferred land by commercial banks, the period of holding farmland in inventory was often shorter than for other creditors. This sale activity by commercial banks of farmland held in inventory may have been the result of contacts with local real estate brokers, knowing individuals wanting to purchase farmland or pressure from regulators.

Among other creditors, Farmers Home Administration had several restrictions placed on them concerning the handling of acquired lands by the Food Security Act of 1985, Pub. L. No. 99-198, 99 Stat. 1354, 7 U.S.C.A. 2000 (Supp. 1986). First, if sales would depress local land prices, the Farmers Home Administration was prohibited from selling. Second, family sized farm operators must be given priority if there is a sale or lease of inventory land. Third, if the land is to be leased, the former owner must be given preference (Id. at 1314) [25, p. 5]. In the case of insurance companies, it appears their decision to hold farmland in inventory was based on their financial

resources and a decision to wait for higher farmland values before selling.

The level of sale activity of the farm credit banks may have been a result of the internal turmoil within the Farm Credit System. During this time, system officials, policymakers, and regulators were beginning to recognize the financial problems of the system and were searching for the best solution. Therefore, the local Federal Land Banks and Production Credit Associations were given little guidance in how to deal with their own, as well as their borrowers', financial difficulties.

Some of the farmland transferred to the Federal Land Bank was immediately sold to the farmer from whom it was transferred. Generally, this sale from the Federal Land Bank to the individual producer was done on a real estate contract. In conversations with county officials and from a reading of the instruments, it appears this transaction was often the negotiated resolution of the debtor/creditor conflict. Without more specific financial information, it is not possible to ascertain the reasoning behind these particular transactions.

Tables 5.10A and 5.10B show the estimated farmland inventory for Iowa lenders as of July 1, 1987. The numbers in this table are obtained by subtracting Table 5.9 from the corresponding entries in Table 5.4. As of July 1, 1987, 1.15 million acres valued at $892.3 million were still being held in inventory by creditors.

As appeared in previous farmland inventory tables, some of the acre numbers are negative. This results from more land being sold by

Table 5.10A. Estimates for lenders' agricultural land inventory in Iowa including the transactions of the Exchange Bank Receivership (acres)[a]

	1980	1981	1982	1983
Commercial banks	4,040	279	17,197	60,161
Farmers Home Administration (FmHA)	0	0	3,335	899
Federal Land Bank (FLB)	68	0	0	2,671
Individuals (real estate contracts)	5,522	8,518	11,246	11,608
Insurance Companies	0	0	0	2,406
Production Credit Association (PCA)	0	1,423	13,742	14,334
Others	8,232	(8,003)	0	198
Total number of acres	17,862	2,217	45,519	92,278
Percent of state land in farms	0.05	0.01	0.14	0.27

[a]Value of inventory is equal to $892.292 million.

[b]1/1/87 - 7/1/87.

1984	1985	1986	1987[b]	Total
53,357	102,612	57,405	(31,096)	263,957
13,433	20,061	18,754	7,941	64,423
9,581	54,536	92,469	34,958	194,282
70,847	142,687	130,804	1,627	382,858
16,513	51,134	97,531	26,678	194,263
(3,221)	5,417	6,429	(3,906)	34,216
(198)	15,690	1,803	(3,223)	14,500
160,311	392,137	405,196	32,978	1,148,499
0.48	1.17	1.21	0.10	3.42

Table 5.10B. Estimates for lenders' agricultural land inventory in Iowa excluding the transactions of the Exchange Bank Receivership (acres)[a]

	1980	1981	1982	1983
Commercial banks	4,040	279	17,197	57,780
Farmers Home Administration (FmHA)	0	0	3,335	899
Federal Land Bank (FLB)	68	0	0	2,671
Individuals (real estate contracts)	5,522	8,518	11,246	11,608
Insurance Companies	0	0	0	2,406
Production Credit Association (PCA)	0	1,423	13,742	14,334
Others	8,232	(8,003)	0	198
Total number of acres	17,862	2,217	45,519	89,897
Percent of state land in farms	0.05	0.01	0.14	0.27

[a]Value of inventory is equal to $879.278 million.

[b]1/1/87 - 7/1/87.

1984	1985	1986	1987[b]	Total
46,338	78,355	67,935	(35,368)	236,558
13,433	20,061	18,754	7,941	64,423
9,581	54,536	92,469	34,958	194,282
70,847	142,687	130,804	1,627	382,858
16,513	51,134	97,531	26,678	194,263
(3,221)	5,417	6,429	(3,906)	34,216
(198)	15,690	1,803	(3,223)	14,500
153,292	367,881	415,726	28,706	1,121,100
0.46	1.09	1.24	0.09	3.34

a particular lender at a particular time than received. However, end totals are in positive acres.

A statistical test of significance was also done for the differences in inventory held by each creditor, as shown in Table 5.11. The significant differences indicated by this comparison did not differ from the results of the earlier test of significance between the number of acres transferred to each creditor with one exception, insurance companies. For example, there was a significantly greater amount of farmland transferred to commercial banks than to insurance companies. However, there was not a significant difference in the total number of acres held in inventory between commercial banks and insurance companies. This is an indication of the insurance companies' large farmland inventory and the commercial banks' aggressive sale of farmland out of inventory. The results here point to a strong correlation between the total number of acres transferred to each lender, the amount of transferred farmland sold, and thus, land held in inventory.

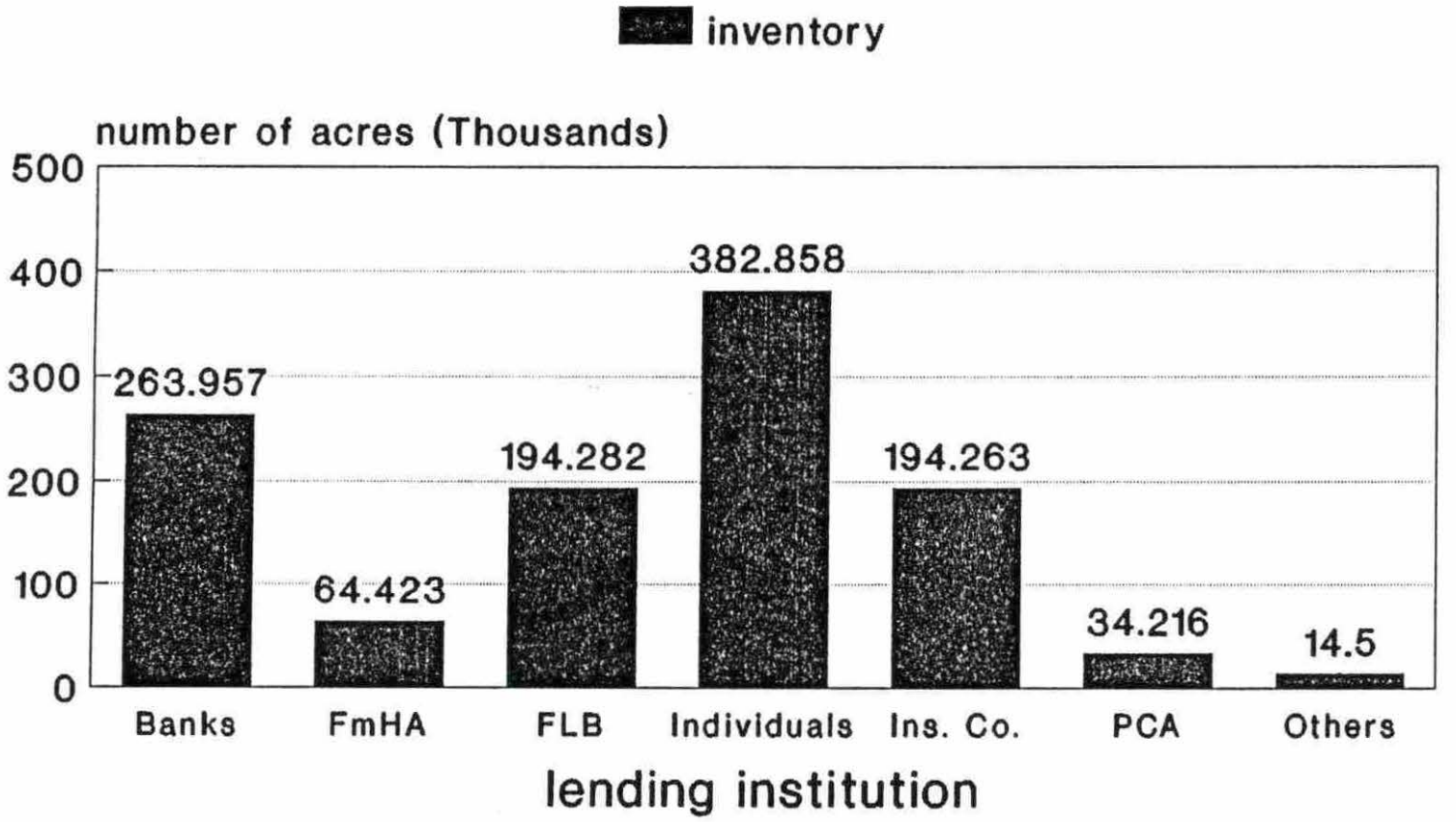
As of July 1, 1987, the percent of total farmland in the state in inventory was 3.42 percent. Figure 5.4 shows graphically the agricultural land inventory held by each lender as of July 1, 1987. In absolute numbers and in percentage of total land in inventory, individuals were holding the greatest number of acres. The remaining creditors, by rank of most farmland in their inventory, are commercial banks, the Federal Land Bank, insurance companies, Farmers Home Administration, Production Credit Association, and others.

Table 5.11. Comparison of differences of estimated total number of acres transferred in inventory in Iowa between financial institutions[a]

Financial institutions compared	Estimated difference	Standard error	Confidence interval
CB/FmHA[b]	21621.41	7725.40	(6476.62 , 36763.20)
CB/FLB	7526.51	5759.57	(-3762.25 , 18815.26)
CB/Ind	-11862.40	6086.30	(-23791.50 , 66.72)
CB/Ins	7552.10	6234.65	(-4667.81 , 19772.02)
CB/PCA[b]	24682.76	7702.53	(9585.80 , 39779.73)
CB/Oth[b]	26879.13	8921.87	(9392.27 , 44366.00)
FmHA/FLB[b]	-14094.90	5726.17	(-25318.10 , -2871.62)
FmHA/Ind[b]	-33483.80	11590.55	(-56201.30 , -10766.30)
FmHA/Ins[b]	-14069.30	6314.53	(-26445.70 , -1692.83)
FmHA/PCA	2343.34	2162.64	(-1896.43 , 6581.11)
FmHA/Oth	5257.72	2797.05	(-224.50 , 10739.94)
FLB/Ind[b]	-19388.90	9829.58	(-38654.90 , -122.96)
FLB/Ins	25.60	6430.68	(-12578.50 , 12629.72)
FLB/PCA[b]	17156.26	6172.38	(5058.39 , 29254.13)
FLB/Oth[b]	19352.62	7129.31	(5379.17 , 33326.08)
Ind/Ins	19414.53	9960.68	(-108.40 , 38937.46)
Ind/PCA[b]	36545.19	12141.03	(12746.81 , 60343.57)
Ind/Oth[b]	68741.56	13023.73	(13215.04 , 64268.08)
Ins/PCA[b]	17010.15	6884.25	(3517.02 , 30505.29)
Ins/Oth[b]	19327.03	6858.41	(5884.55 , 32769.50)
PCA/Oth	2196.37	2123.65	(-1965.99 , 6358.73)

[a]CB = Commercial Banks, FmHA = Farmers Home Administration, FLB = Federal Land Bank, Ind = Individuals, Ins = Insurance Companies, PCA = Production Credit Association, and Oth = Others.

[b]Indicates a statistically significant difference.



Notes: 1) includes transactions of
the Exchange Bank Receivership
2) total inventory - 1,148.499 acres

Figure 5.4. Agricultural land inventory in Iowa by lender as of July 1, 1987 (estimated)

The remaining tables, 5.12A and 5.12B, show the number of tracts of farmland held in inventory by number of months and years. Most of the transferred land was sold within nine months of transfer. If the land continued to be held in inventory beyond that time period, it was usually in inventory for over two years. One departure from this pattern in the county results is that a significant amount of land was sold after being held in inventory for 13 to 18 months.

As stated above, most of the transferred land was sold within nine months of transfer from land owner to creditor. This follows from the fact that a majority of the farmland acreage was transferred to creditors from 1985 through the first half of 1987, and then was sold shortly thereafter in 1986 and 1987. The stabilization of farmland values in 1986 and 1987 may have contributed to more farmland sales. Also during 1986, the Conservation Reserve Program (CRP) may have provided some strength to the market for poorer quality farmland, particularly in the southern pasture region. The CRP is a ten-year paid land set-aside program for the prupose of taking highly erosive farmland out of production. The CRP promised 10 years of steady income, which may have made lower valued farmland that was eligible an attractive investment.

Table 5.12A. Estimated holding period of transferred land sold in Iowa including the transactions of the Exchange Bank Receivership

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	10	19	98	136	222	294	693	543	2014
4-6	0	84	13	42	92	110	235	383	960
7-9	0	0	16	51	69	85	285	420	926
10-12	0	0	0	23	18	51	92	249	433
13-18	0	0	9	50	51	108	188	310	716
19-24	0	0	28	83	32	46	104	215	508
25+	6	0	15	7	82	152	145	455	862

[a]1/1/87 - 7/1/87.

Table 5.12B. Estimated holding period of transferred land sold in Iowa excluding the transactions of the Exchange Bank Receivership

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	10	19	98	136	202	294	693	543	1995
4-6	0	84	13	42	73	91	235	383	921
7-9	0	0	16	51	69	85	285	411	917
10-12	0	0	0	23	18	51	82	249	424
13-18	0	0	9	50	51	88	139	300	638
19-24	0	0	28	83	32	46	104	215	508
25+	6	0	15	7	82	152	125	426	814

[a]1/1/87 - 7/1/87.

CHAPTER VI. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The survey provided information on the number of acres transferred due to financial stress, who the participants were in this land transfer, what types of transactions characterized this land transfer, and what happened to deeded financially stressed land after transfer. Several conclusions can be drawn from the results of the survey.

The purpose of this study was to collect and analyze data concerning the transfer of agricultural land in Iowa under financial stress. The issue addressed was whether there had been a change in the character of agricultural land transfers between debtors and creditors during this time of financial stress. From the data collected and estimates made, the conclusion can be reached that there was a change in agricultural land transfer between creditors and debtors. Over the survey period, the number of acres transferred due to financial stress increased, indicating farmers experienced financial stress throughout the 1980s.

This conclusion is further supported in the testing of whether there was a significant difference between the number of acres transferred each year. There was a statistically significant change in the number of acres farmers were transferring to their respective financial institutions.

The results of the survey show the greatest amount of agricultural land transferred in 1985 and 1986, which indicates that farmers experienced the most financial stress during these years. This result

corresponds to the trend in the per acre value of farmland, the value of agricultural exports, and several other economic variables.

From the results of the survey to date, it is difficult to conclude whether 1985 and 1986 will be the peak years in terms of the number of acres transferred due to financial stress. A significant amount of farmland was still being transferred in the first half of 1987. It may be that 1987 or 1988 will have more acres transferred due to financial stress than previous years, thereby signaling the agricultural crisis may not be over. This would be an indication of the possibility of more restructuring ahead for farmers and lenders.

During these years of financial stress, commercial banks and private individuals were major receivers of farmland. However, all lenders and creditors were forced to deal with borrowers under adverse conditions and were recipients of farmland. This was not a problem for just one lender.

Foreclosures were not the major remedy used in the debtor/creditor conflicts. Voluntary transfers were made more frequently. It would be improper, however, to conclude that all voluntary transfers were truly voluntary. However, it does indicate that remedies sought by debtors and creditors alike were mutual agreements rather than entirely as an adversarial action.

As noted above, commercial banks were major participants throughout the years of the agricultural crisis. Conversely, the Federal Land Bank only became a major participant in 1985. It could be concluded that commercial banks recognized and reacted earlier than

the Federal Land Bank to the agricultural crisis of the 1980s. Thus, commercial banks began restructuring themselves along with their borrowers earlier to adjust to the new economic climate.

The amount of agricultural land still held by creditors as of July 1, 1987 shows that there is still financial stress to be worked out in agriculture. As of July 1, 1987, creditors are still holding two-thirds of the total transferred farmland. As discussed in the 1986 Farm Finance Survey, economists and policymakers must seriously consider what effect this backlog of land and other agricultural assets will have on asset markets, on farmers, and on lending institutions [15, p. 11].

The survey of the counties and the regional estimations provided not only a vehicle to obtain state estimations, but some valuable insights.

The compilation of the results of the corn suitability ratings (CSR) survey of those applicable counties provided little insight into the transfer of farmland due to financial stress or its sale. No pattern or trend emerged from these results. However, in terms of transferred land sold, these results may point out that land ownership is determined more by other factors, such as price or geographic location rather than productivity.

However, a look at regional corn suitability rating averages does show that those regions with a higher CSR value had smaller number of acres transferred due to financial stress. The results of Scheffé's method for multiple comparison of means suggest a negative relationship

between the number of acres transferred due to financial stress and the CSR of the region. The financial stress experienced in different regions of the state was, to a degree, dependent upon the productivity of the land.

Further, regional comparisons showed the diversity of Iowa's agriculture. Those regions of the state with a more diversified agricultural base showed less financial stress by the number of acres transferred. It may be that producers whose farm income is dependent on more than one agricultural enterprise weathered better the agricultural crisis of the 1980s.

In addition to agricultural diversity, the effects of farm programs must be considered. Even though grain prices during the 1980s had been depressed, regions of cash grain production have not experienced the amount of acreage transfer other regions have. Farm programs are aimed at sustaining and stabilizing farm income through feed grain price supports and loan programs. One could conclude the presence of farm programs may have sustained the financial health of many farmers and without them, the agricultural crisis of the 1980s could have been much worse.

Recommendations

This study has pointed out some of the inadequacies of the present system of recording land transactions in Iowa, and consequently, the data availability. Data availability is very important for policymakers. As it stands now, legislation passed affecting

agricultural land is done with a limited amount of information.

Agricultural land research and data collection in the areas of farmland movement and ownership should be done on a continuing basis. Interest in agricultural land is often limited to time periods of unusual economic conditions. Both research and legislative initiatives would be aided by the availability of a long-term database. Often policy decisions are based on limited information. Policymakers react to near-term crisis, enacting legislation with a short period of deliberation, and based on either outdated or biased information. Data may be biased by economic shocks that cause short-term aberrations rather than long-term effects in the economy. A long-term database of farmland movement or ownership would enhance the policy-making process. Data may identify a need for legislation such as a need to assist young farmers in land purchases or an adjustment in macroeconomic policy as suggested by changes in land prices, ownership, and transfer, or restrictions on ownership of farmland.

The development and maintenance of such a database would require a good retrieval and record system from which to draw. Each county visited for this survey had a slightly different method of maintaining their records. County records are maintained for ease of recording and not for ease of data retrieval. Several counties are using a computerized recording system, which helps standardize the indexing of records. A system of standardized record keeping should be instituted throughout the state. In addition, a state-wide system of computer recording should be instituted at both the county and state

levels. The system should be developed with three purposes in mind: (1) to aid in the recording of instruments, (2) to aid in the searching of documents, i.e., being able to retrieve an instrument(s) by type of instrument(s), by grantor, by grantee, or by date(s), and (3) a central data bank with easy access. Such a system would not only help researchers and policymakers, but would ease the workload of abstracters.

Further Topics for Research

This is a foundation study providing a data base of information on the transfer of agricultural land during a period of financial stress. The data established that there was a significant amount of transfer of farmland and change in ownership.

A number of questions have been raised by this survey and its results. What effect did this land transfer have on land values? What costs will financial institutions incur from the holding of this land? Will the quality of the land suffer due to lax stewardship practices during this time of transition? Will there be a change in the ownership of farmland from owner/operator to owner/investor? If fewer people are farming, what is the impact on rural communities?

There will be many unforeseen impacts resulting from this increased land transfer. It appears that farmland may be held by fewer and fewer individuals. The agricultural crisis may affect the management decisions of farmers for many years, thereby making farmers more risk averse.

A more extensive economic and sociological study of the grantors of transferred land and the grantees of transferred land sold is needed to provide an in-depth study of the effects of the agricultural crisis of the 1980s. A survey of grantors may include some background information on the circumstances surrounding the transfer of their land to their creditor. Questions about whether they are still farming or have left the farm should be addressed. If they are still farming, what changes have been made in their farming operation? Knowing grantees' occupations, reasons for purchase, and future plans for the tract purchased would also be of interest. A written survey would provide more insight into the effects of the agricultural crisis. The resulting data would give information on farmland ownership trends that would be valuable in making informed decisions on policy.

The survey reported here should be extended to collect data on the remaining three years of the decade, if not on a continuing basis. As mentioned earlier, if the pace of land transferred in the first half of 1987 continued for the entire year, this may signal a continuation of the agricultural downturn.

Final Word

There have been many ideas put forth to deal with the agricultural crisis of the 1980s. The ideas have ranged from active government intervention such as the Harkin-Gephart supply management proposal to the debt restructuring proposal put forth by Neil E. Harl of Iowa State University and Congressman Jim Leach (1-IA) and the Agricultural

Financing Corporation proposal by Neil E. Harl. As farmland values and net farm incomes have stabilized, the call for direct government intervention has decreased.

However, this does not mean that policymakers can neglect the agricultural sector. The agricultural crisis of the 1980s has sensitized policymakers to the needs of the agricultural community. The macroeconomic fine-tuning of the domestic and international economy directly impact agriculture. As seen in this study, macroeconomic recommendations and decisions should be made keeping in mind the potential effects upon agriculture.

This study has shown the transfer of agricultural land under financial stress during the 1980s. In terms of numbers, an estimated 1.7 million acres or 5.07 percent of the total land in farms in Iowa were transferred due to financial stress worth an estimated $1.53 billion from 1980 through the first half of 1987. This transfer of assets worth over a billion dollars in Iowa was a significant economic shock to the agricultural economy of the state and farmers. This economic shock has produced many changes in Iowa agriculture which are reflected in Iowa's farmland. It is imperative that the transfer of agricultural land in Iowa be studied as it is a basic economic resource.

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APPENDIX A. IOWA FARM FINANCIAL DATA

Table A.1. Iowa net farm income, 1970-1987 (millions of dollars)[a]

Year or quarter	Net farm income (current dollars)
1970	n/a
1971	858.6
1972	1,290.6
1973	2,590.6
1974	1,458.7
1975	1,750.0
1976	915.1
1977	981.0
1978	2,025.1
1979	1,371.1
1980	420.8
1981	1,841.5
1982	924.6
1983	(250.7)
1984	1,734.6
1985	1,589.5
1986	2,330.6
1987	n/a

[a]From [16, p. 89].

Table A.2. Change in debt-to-asset ratio class, 1984-1985[a, b]

1984 D/A ratio (%)	1985 debt-to-asset ratio (%)					
	0-10	10-40	40-70	70-100	100+	Sample[c]
0-10	89	10	2			38
10-40	3	75	20	2		37
40-70		5	67	23	4	19
70-100			11	44	44	4
100+				10	90	1
Sample (%)[d]	35	32	21	7	4	100

[a]From [12, p. 11].

[b]Percent of operators in 1984 D/A class in the given D/A class in 1985.

[c]Distribution of sample in 1984 D/A class.

[d]Distribution of sample in 1985 D/A class.

Example: In 1984, 138 operators (19%) in the sample were in the 40-70 D/A class. Of those, 92 (67%) were still in the 40-70 D/A class in 1985. However, 32 operators (23%) moved into the 70-100 D/A class. In 1985, 153 operators were in the 40-70 D/A class.

Table A.3. Change in debt-to-asset ratio class, 1985-1986[a, b]

1985 D/A ratio (%)	1986 debt-to-asset ratio (%)					
	0-10	10-40	40-70	70-100	100+	Sample[c]
0-10	93	7				38
10-40	11	75	13	1		33
40-70		10	59	27	4	19
70-100		4	17	58	21	8
100+			6	25	69	2
Sample (%)[d]	38	30	17	11	4	100

[a]From [14, p. 18].

[b]Percent of operators by 1986 D/A class, for each 1985 class.

[c]Distribution of sample by 1985 D/A class.

[d]Distribution of sample by 1986 D/A class.

Table A.4. Change in debt-to-asset ratio class, 1986-1987[a, b]

1986 D/A ratio (%)	1987 debt-to-asset ratio (%)					
	0-10	10-40	40-70	70-100	100+	Sample[c]
0-10	94	5	1			40
10-40	13	80	7			28
40-70	1	18	67	12	2	18
70-100		1	23	59	17	9
100+				25	75	5
Sample (%)[d]	41	28	16	9	6	100

[a]From [17, p. 12].

[b]The diagonal indicates the percentage of operators in this 1986 debt class who are in the same debt class in 1987.

[c]Distribution of sample by 1986 D/A class.

[d]Distribution of sample by 1987 D/A class.

APPENDIX B. ALLAMAKEE COUNTY DATA

Table B.1. Financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	160	78.86	40	320	595.27	709.528	2479.24	757.64	5140.538
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	0	0	653.91	962.35	306.72	1922.98
Individuals (real estate contracts)	350.64	196.95	502.11	611.171	1260.419	2418.06	1969.49	0	7308.84
Insurance companies	0	0	0	0	0	220	1415.311	1040.13	2675.441
Production Credit Association (PCA)	0	0	0	0	0	0	797.52	0	797.52
Others	960.79	0	0	0	0	1245.94	0	233.75	2440.48
Total number of acres	1471.43	275.81	542.11	931.171	1855.689	5247.438	7623.911	2338.24	20285.799
Value based on ISU land value survey	$1,805,444.61	$358,553.00	$619,631.73	$988,903.60	$1,588,469.78	$3,106,483.30	$3,682,349.01	$1,243,943.68	$13,393,778.72

[a]1/1/87 - 7/1/87.

Table B.2. Financially stressed agricultural land transfers by type of transfer (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	196.95	0	0	121.5	976.72	1500.93	791.44	3587.54
Notice of forfeitures	350.64	0	502.11	611.171	1260.419	2418.06	1969.49	0	7111.89
Voluntary transfers	1120.79	78.86	40	320	473.77	1852.658	4153.491	1546.8	9586.369
Total number of acres	1471.43	275.81	542.11	931.171	1855.689	5247.438	7623.911	2338.24	20285.799
Total number of transactions	6	3	5	5	12	20	46	11	108

[a]1/1/87 - 7/1/87.

Table B.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	160	0	0	351.66	324.238	2168.54	1143.74	4148.178
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	0	0	0	0	1130.59	1130.59
Individuals (real estate contracts)	0	0	132	0	20	170	636.41	945.13	1903.54
Insurance companies	0	0	0	0	0	0	0	0	0
Production Credit Association (PCA)	0	0	0	0	0	0	632.54	0	632.54
Others	0	934.05	0	0	0	0	0	60	994.05
Total number of acres	0	1094.05	132	0	371.66	494.238	3437.49	3279.46	8808.898
Value based on ISU land value survey	$0.00	$1,422,265.00	$150,876.00	$0.00	$318,140.96	$292,588.90	$1,660,307.67	$1,744,672.72	$5,588,851.25
Total number of transactions	0	3	1	0	3	5	29	29	70

[a] 1/1/87 - 7/1/87.

Table B.4. Net - financially stressed land transfers minus financially stressed land transferred sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	160	-81.14	40	320	243.61	385.29	310.7	-386.1	992.36
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	0	0	653.91	962.35	-823.87	792.39
Individuals (real estate contracts)	350.64	196.95	370.11	611.171	1240.419	2248.06	1333.08	-945.13	5405.3
Insurance companies	0	0	0	0	0	220	1415.311	1040.13	2675.441
Production Credit Association (PCA)	0	0	0	0	0	0	164.98	0	164.98
Others	960.79	-934.05	0	0	0	1245.94	0	173.75	1446.43
Total number of acres	1471.43	-818.24	410.11	931.171	1484.029	4753.2	4186.421	-941.22	11,476.901
Inventory value ($)									$6,105,711.33

[a] 1/1/87 - 7/1/87.

Table B.5. Holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	0	0	4	4	18	7	33
4-6	0	9	0	0	1	1	8	5	24
7-9	0	0	0	0	0	1	6	8	15
10-12	0	0	0	0	0	0	1	4	5
13-18	0	0	0	1	0	0	1	3	5
19-24	0	0	0	0	0	0	1	2	3
25+	0	0	1	0	1	0	1	7	10

[a]1/1/87 - 7/1/87.

APPENDIX C. BOONE COUNTY DATA

Table C.1. Financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	160	1144.5	270.25	1102.05	2477.59	480.74	40	5675.13
Farmers Home Administration (FmHA)	0	0	175	0	80	150	154	0	559
Federal Land Bank (FLB)	0	0	0	0	0	0	1605.49	1400	3005.49
Individuals (real estate contract forfeitures)	0	0	40	0	360	625	1222.04	40	2287.04
Insurance companies	0	0	0	0	438	0	360	0	798
Production Credit Association (PCA)	0	80	0	0	0	0	545	0	625
Others	0	0	0	0	0	0	0	0	0
Total number of acres	0	240	1359.5	270.25	1980.05	3252.59	4367.27	1480	12,949.66
Value based on ISU land value survey	$0	$644,400	$3,088,784	$583,470	$3,488,848	$3,818,541	$4,310,495	$1,619,120	$17,553,658

[a] 1/1/87 - 7/1/87.

Table C.2. Financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	0	0	0	906.24	990	1896.24
Notice of forfeitures	0	0	40	0	240	585	584.81	40	1489.81
Voluntary transfers	0	240	1319.5	270.25	1740.05	2667.59	2876.22	450	9563.61
Total number of acres	0	240	1359.5	270.25	1980.05	3252.59	4367.27	1480	12,949.66
Total number of transactions	0	2	8	2	15	27	31	9	94

[a]1/1/87 - 7/1/87.

Table C.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	154.22	18.26	96.5	134.02	462.29	643.59	259.05	1767.93
Farmers Home Administration (FmHA)	0	0	175	0	0	0	0	0	175
Federal Land Bank (FLB)	0	0	0	0	0	0	334.68	620	954.68
Individuals (real estate contract forfeitures)	0	0	0	0	0	0	0	0	0
Insurance companies	0	0	0	0	0	0	0	15.49	15.49
Production Credit Association (PCA)	0	0	0	0	0	0	130	135	265
Others	0	0	0	0	0	0	0	0	0
Total number of acres	0	154.22	193.26	96.5	134.02	462.29	1108.27	1029.54	3178.1
Value based on ISU land value survey	$0	$414,081	$439,087	$208,344	$236,143	$542,728	$1,093,862	$1,126,317	$4,060,562
Number of transactions	0	1	2	1	2	6	13	13	38

[a] 1/1/87 - 7/1/87.

Table C.4. Net - financially stressed land transfers minus financially stressed land transferred sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	5.78	1126.24	173.75	968.03	2015.3	-162.85	-219.05	3907.2
Farmers Home Administration (FmHA)	0	0	0	0	80	150	154	0	384
Federal Land Bank (FLB)	0	0	0	0	0	0	1270.81	780	2050.81
Individuals (real estate contracts)	0	0	40	0	360	625	1222.04	40	2287.04
Insurance companies	0	0	0	0	438	0	360	-15.49	782.51
Production Credit Association (PCA)	0	80	0	0	0	0	415	-135	360
Others	0	0	0	0	0	0	0	0	0
Total number of acres	0	85.78	1166.24	173.75	1846.03	2790.3	3259.00	450.46	9771.56
Inventory value ($)									$10,690,086.64

[a]1/1/87 - 7/1/87.

Table C.5. Holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	1	2	2	2	2	3	12
4-6	0	1	1	0	0	0	5	5	12
7-9	0	0	1	0	0	1	4	5	11
10-12	0	0	0	0	0	1	0	0	1
13-18	0	0	0	0	0	0	1	1	2
19-24	0	0	0	0	0	2	2	0	4
25+	0	0	0	0	0	1	1	2	4

[a]1/1/87 - 7/1/87.

Table C.6. Corn suitability rating (CSR) of transferred land

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	2	8	2	19	15	31	12	89
Average CSR = 72.3[b]	0	0	0	0	0	1	0	0	1
Below average CSR	0	0	5	2	1	15	18	4	45

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average category if tract's average CSR was between 72.0 - 72.9.

Table C.7. Corn suitability rating (CSR) of transferred land sold

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	1	1	0	0	5	10	9	26
Average CSR = 72.3	0	0	0	0	0	0	0	0	0
Below average CSR	0	0	2	2	1	1	4	3	13

[a]1/1/87 - 7/1/87.

APPENDIX D. BUTLER COUNTY DATA

Table D.1. Financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	15.31	79.06	0	398.2	884.88	1711.8	2480.17	887.54	6456.96
Farmers Home Administration (FmHA)	0	0	0	0	97.33	0	279.4	160	536.73
Federal Land Bank (FLB)	0	0	0	0	25.58	998.59	1648.33	1031.758	3704.258
Individuals (real estate contracts)	0	10	195.47	355	698.24	1911.94	2261.27	100	5531.92
Insurance companies	0	0	0	0	244.375	3064.09	1026.93	555.2	4890.595
Production Credit Association (PCA)	0	0	0	0	0	0	80	0	80.00
Others	0	0	0	0	0	75.63	304.375	0	380.005
Total number of acres	15.31	89.06	195.47	753.2	1950.405	7762.05	8080.475	2734.498	21580.468
Value based on ISU land value survey	$39,285.46	$238,680.80	$433,356.99	$1,566,656.00	$3,307,886.88	$8,872,023.15	$7,442,117.48	$2,770,046.47	$24,670,053.23

[a]1/1/87 - 7/1/87.

Table D.2. Financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	0	89.2	80	649.58	383.913	1202.693
Notice of forfeitures	0	10	195.47	355	698.24	1911.94	2261.27	100	5531.92
Voluntary transfers	15.31	79.06	0	398.2	1162.965	5770.11	5169.625	2250.585	14845.855
Total number of acres	15.31	89.06	195.47	753.2	1950.405	7762.05	8080.475	2734.498	21,580.468
Total number of transactions	1	2	1	8	19	38	63	19	151

[a]1/1/87 - 7/1/87.

Table D.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	1.64	77.735	272.31	64.55	254.625	270.89	1184.09	2125.84
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	0	25.58	0	200	801.4	1026.98
Individuals (real estate contracts)	0	0	0	175	30	324.77	268.42	40	838.19
Insurance companies	0	0	0	0	0	0	9.37	187.5	196.87
Production Credit Association (PCA)	0	0	0	0	0	0	0	143.125	143.125
Others	0	0	0	0	0	0	304.375	0	304.375
Total number of acres	0	1.64	77.735	447.31	120.13	579.395	1053.055	2356.115	4635.38
Value based on ISU land value survey	$0.00	$4,395.20	$172,338.50	$930,404.80	$203,740.48	$662,248.49	$969,863.66	$2,386,744.49	$5,329,735.61
Total number of transactions	0	1	1	6	4	9	19	24	64

[a]1/1/87 - 7/1/87.

Table D.4. Net - Financially stressed land transfers minus financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	15.31	77.42	-77.735	125.89	820.33	1457.175	2209.28	-296.55	4331.12
Farmers Home Administration (FmHA)	0	0	0	0	97.33	0	279.4	160	536.73
Federal Land Bank (FLB)	0	0	0	0	0	998.59	1448.33	230.358	2677.278
Individuals (real estate contracts)	0	10	195.47	180	668.24	1587.17	1992.85	60	4693.73
Insurance companies	0	0	0	0	244.375	3064.09	1017.56	367.7	4694.725
Production Credit Association (PCA)	0	0	0	0	0	0	80	-143.125	-63.125
Others	0	0	0	0	0	75.63	0	0	75.63
Total number of acres	15.31	87.42	117.735	305.89	1830.275	7182.655	7027.42	378.383	16,945.088
Inventory value ($)									$17,165,374.14

[a] 1/1/87 - 7/1/87.

Table D.5. Holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	1	0	6	4	5	7	3	26
4-6	0	0	0	0	0	0	2	6	8
7-9	0	0	0	0	0	1	5	5	11
10-12	0	0	0	0	0	1	1	2	4
13-18	0	0	1	0	0	2	3	4	10
19-24	0	0	0	1	0	0	1	5	7
25+	0	0	0	0	0	1	0	4	5

[a]1/1/87 - 7/1/87.

Table D.6. Corn suitability rating (CSR) of transferred land

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	0	0	4	5	20	25	17	71
Average CSR = 72.5[b]	0	0	0	0	1	9	1	1	12
Below average CSR	1	1	1	7	18	34	61	10	133

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average CSR category if tract's average CSR was between 72.0 - 72.9.

Table D.7. Corn suitability rating (CSR) of transferred land sold

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	0	0	4	0	2	10	8	24
Average CSR = 72.5[b]	0	0	0	0	0	1	0	2	3
Below average CSR	0	0	1	1	4	3	8	14	31

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average CSR category if tract's average CSR was between 72.0 - 72.9.

APPENDIX E. CHEROKEE COUNTY DATA

Table E.1. Financially stressed agricultural land transfers by lender (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	21.00	224.33	0	52.72	591.965	420.9375	335.86	1646.8125
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	100.00	100.00
Federal Land Bank (FLB)	0	0	0	240	525.2587	1707.41	2481.75	1123.5575	6077.9762
Individuals (real estate contracts)	0	0	0	160	778.86	524.02	828.84	400.00	2691.72
Insurance companies	0	0	0	0	480.00	994.00	287.00	0	1761.00
Production Credit Associations (PCA)	0	0	0	0	152.9625	0	80.00	0	232.9625
Others	0	0	0	0	0	0	40.00	0	40.00
Total number of acres	0	21	224.33	400.00	1989.8012	3817.395	4138.5275	1959.4175	12550.4712
Value based on ISU Land value survey	$0.00	$47,880.00	$417,702.46	$725,200.00	$3,510,009.32	$3,519,638.19	$3,443,254.88	$1,861,446.63	$13,525,131.47

[a]1/1/87 - 7/1/87.

Table E.2. Financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	200	240	1047.5887	680	1055.09	425.43	3648.1087
Notice of forfeitures	0	21	0	160	618.86	474.02	666	400	2339.88
Voluntary transfers	0	0	24.33	0	323.3525	2663.375	2417.4375	1133.9875	6562.4825
Total number of acres	0	21	224.33	400	1989.8012	3817.395	4138.5275	1959.4175	12,550.4712
Total number of transactions	0	1	3	2	17	19	31	12	85

[a]1/1/87 - 7/1/87.

Table E.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	0	0	3.49	58.33	119.385	320	501.205
Farmers Home Administration (FaHM)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	0	34.4	543.9887	429.06	1007.4487	2014.8974
Individuals (real estate contracts)	0	0	0	40	0	0	0	40	80
Insurance companies	0	0	0	0	0	0	320	320	640
Production Credit Associations (PCA)	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	17.5	17.5	35
Total number of acres	0	0	0	40	37.89	602.3187	885.945	1704.9487	3271.1024
Value based on ISU land value survey	$0.00	$0.00	$0.00	$72,520.00	$66,837.96	$555,337.84	$737,106.24	$1,619,701.27	$3,051,503.31
Total number of transactions	0	0	0	1	2	7	9	18	37

[a]1/1/87 - 7/1/87.

Table E.4. Net - financially stressed land transfers minus financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	21	224.33	0	49.23	533.635	301.5525	15.86	1145.6075
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	100	100
Federal Land Bank (FLB)	0	0	0	240	490.8587	1163.4213	2052.69	116.1088	4063.0788
Individuals (real estate contracts)	0	0	0	120	778.86	524.02	828.84	360	2611.72
Insurance companies	0	0	0	0	480	994	-33	-320	1121
Production Credit Associations (PCA)	0	0	0	0	152.9625	0	80	0	232.9625
Others	0	0	0	0	0	0	22.5	-17.5	5
Net total acres	0	21	224.33	360	1951.9112	3215.0763	3252.5825	254.4688	9279.3688
Inventory value ($)									$8,815,400.36

[a]1/1/87 - 7/1/87.

Table E.5. Holding period of transferred land sold

# of months	Frequency of holding transferred land sold								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	0	0	0	2	3	4	9
4-6	0	0	0	0	1	4	1	0	6
7-9	0	0	0	1	0	0	1	2	4
10-12	0	0	0	0	0	1	1	4	6
13-18	0	0	0	0	0	0	3	3	6
19-24	0	0	0	0	1	0	0	3	4
25+	0	0	0	0	0	1	1	4	6

[a]1/1/87 - 7/1/87.

APPENDIX F. DALLAS COUNTY DATA

Table F.1. Financially stressed agricultural land transfer by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	56.05	411.42	785.7669	573.91	546.90	45.8876	2419.9345
Farmers Home Administration (FmHA)	0	0	200.00	0	0	88.79	89.00	98.25	476.04
Federal Land Bank (FLB)	10.32	0	0	0	240.0	449.8067	831.05	514.41	2045.5867
Individuals (real estate contracts)	98.74	120.24	181.5625	0	445.37	373.67	877.54	276.00	2373.1225
Insurance companies	0	0	0	0	0	0	159.00	0	159.00
Production Credit Association (PCA)	0	134.93	0	54.272	240.0	247.75	200.00	109.17	986.122
Others	0	0	0	0	0	0	511.75	10.00	521.75
Total number of acres	109.06	255.17	437.6125	465.692	1711.1369	1733.9267	3215.24	1053.7176	8981.5557
Value based on ISU land value survey	$224,772.66	$532,539.79	$768,885.16	$772,117.34	$2,279,234.35	$1,576,139.37	$2,469,304.32	$899,874.83	$9,522,867.82

[a]1/1/87 - 7/1/87.

Table F.2. Financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	19.58	60.7174	0	120	256.54	456.8374
Notice of forfeitures	98.74	120.24	181.5625	0	445.37	373.67	877.54	276	2373.1225
Voluntary transfers	10.32	134.93	256.05	446.112	1205.0495	1360.2567	2217.7	521.1776	6151.5958
Total number of acres	109.06	255.17	437.6125	465.692	1711.1369	1733.9267	3215.24	1053.7176	8981.5557
Total number of transactions	2	3	6	10	16	12	32	14	95

[a]1/1/87 - 7/1/87.

Table F.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	0	272.809	199.32	229.1894	523.859	327.7545	1552.9319
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	0	0	240	440.255	611.7817	1292.0367
Individuals (real estate contracts)	0	0	5	33	21.5	270.01	369.93	160	859.44
Insurance companies	0	0	0	0	0	0	0	0	0
Production Credit Association (PCA)	0	0	0	21.112	0	0	0	120	141.112
Others	0	0	0	0	0	0	275.03	0	275.03
Total number of acres	0	0	5	326.921	220.82	739.1994	1609.074	1219.5362	4120.5506
Value based on ISU land value survey	$0.00	$0.00	$8,785.00	$542,035.02	$294,132.24	$671,932.25	$1,235,768.83	$1,041,483.91	$3,794,137.26
Total number of transactions	0	0	1	5	6	12	20	16	60

[a] 1/1/87 - 7/1/87.

Table F.4. Net - financially stressed land transfers minus financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	56.05	138.611	586.4469	344.7206	23.041	-281.8669	867.0026
Farmers Home Administration (FmHA)	0	0	200	0	0	88.79	89	98.25	476.04
Federal Land Bank (FLB)	10.32	0	0	0	240	209.8067	390.795	-97.3717	753.55
Individuals (real estate contracts)	98.74	120.24	176.5625	-33	423.87	103.66	507.61	116	1513.6825
Insurance companies	0	0	0	0	0	0	159	0	159
Production Credit Association (PCA)	0	134.93	0	33.16	240	245.75	200	-10.83	845.01
Others	0	0	0	0	0	0	236.72	10	246.72
Total number of acres	109.06	255.17	432.6125	138.771	1490.3169	994.7273	1606.166	-165.8186	4861.0051
Inventory value ($)									$4,151,298.36

[a]1/1/87 - 7/1/87.

Table F.5. Holding period of transferred land sold

	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	0	2	3	2	10	8	25
4-6	0	0	1	0	0	2	2	1	6
7-9	0	0	0	1	1	3	2	1	8
10-12	0	0	0	0	1	0	1	2	4
13-18	0	0	0	1	0	2	2	0	5
19-24	0	0	0	0	0	0	3	1	4
25+	0	0	0	1	1	3	2	3	10

[a]1/1/87 - 7/1/87.

Table F.6. Corn suitability rating (CSR) of transferred land

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	0	1	2	14	11	20	12	60
Average CSR = 73.6[b]	0	0	0	0	0	0	1	0	1
Below average CSR	2	4	7	8	8	5	21	4	59

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average CSR category if tract's average CSR was between 73.0 - 73.9.

Table F.7. Corn suitability rating (CSR) of transferred land sold

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	0	0	0	4	4	11	13	32
Average CSR = 73.6	0	0	0	0	0	0	0	0	0
Below average CSR	0	0	0	4	2	8	12	2	28

[a]1/1/87 - 7/1/87.

APPENDIX G. DAVIS COUNTY DATA

Table G.1A. Financially stressed agricultural land transfers by lender (grantee) including the transactions of the Exchange Bank Receivership

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	150	3024.959	1345.07	3071.19	1069.18	1247.16	9907.559
Farmers Home Administration (FmHA)	0	0	0	207.1	517.56	240.00	91.50	0	1056.16
Federal Land Bank (FLB)	0	0	0	0	0	424.00	601.72	2432.10	3457.82
Individuals (real estate contracts)	160	431.55	150	531.01	813.56	4474.96	1798.31	1678.84	10038.23
Insurance companies	0	0	0	89.875	0	1069.99	688.05	593.99	2441.905
Production Credit Association (PCA)	0	0	120	1407.15	0	134.95	378.50	473.875	2514.475
Others	0	0	0	0	0	120.00	0	0	120.00
Total number of acres	160	431.55	420	5260.094	2676.19	9535.09	4627.26	6425.965	29536.149
Value based on ISU land value survey	$176,000.00	$518,723.10	$434,700.00	$4,823,506.20	$1,996,437.74	$5,110,808.24	$2,035,994.40	$3,052,333.38	$18,148,503.05

[a]1/1/87 - 7/1/87.

Table G.2A. Financially stressed agricultural land transfers by type of transaction (acres) including the transactions of the Exchange Bank Receivership

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	40	664.53	20.69	1486.99	1283.73	3710.475	7206.415
Notice of forfeitures	160	431.55	150	531.01	813.56	4474.96	1562.30	953.59	9076.97
Voluntary transfers	0	0	230	4064.554	1841.94	3573.14	1781.22	1761.90	13252.754
Total number of acres	160	431.55	420	5260.094	2676.19	9535.09	4627.25	6425.965	29536.139
Total number of transactions	1	6	6	15	21	37	27	19	132

[a]1/1/87 - 7/1/87.

Table G.3A. Financially stressed transferred land sold (acres) including the transactions of the Exchange Bank Receivership

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	30	120	406.91	467.36	1711.01	1070.42	3805.70
Farmers Home Administration (FmHA)	0	0	0	167.10	0	80.00	0	0	247.10
Federal Land Bank (FLB)	0	0	0	0	0	0	0	0	0
Individuals (real estate contracts)	160	93.4	324.38	10.76	230.00	313.08	387.90	140.00	1659.52
Insurance companies	0	0	0	0	0	1.00	292.99	261.10	555.09
Production Credit Association (PCA)	0	0	0	120.00	175.50	454.95	140.00	278.00	1168.45
Others	0	0	0	0	0	0	0	471.00	471.00
Total number of acres	160	93.4	354.38	417.86	812.41	1316.39	2531.90	2220.52	7906.86
Value based on ISU land value survey	$176,000.00	$112,266.80	$366,783.30	$383,177.62	$606,057.86	$705,585.04	$1,114,036.00	$1,054,747.00	$4,518,653.62
Total number of transactions	1	1	3	5	9	18	16	15	68

[a] 1/1/87 - 7/1/87.

Table G.4A. Net - financially stressed land transfers minus financially stressed land transferred sold (acres) including the transactions of the Exchange Bank Receivership

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	120.00	2904.959	938.16	2603.83	-641.83	176.74	6101.859
Farmers Home Administration (FmHA)	0	0	0	40.00	517.56	160.00	91.50	0	809.06
Federal Land Bank (FLB)	0	0	0	0	0	424.00	601.72	2432.10	3457.82
Individuals (real estate contracts)	0	338.15	-174.38	520.25	583.56	4161.88	1410.41	1538.84	8378.71
Insurance companies	0	0	0	89.875	0	1068.99	395.06	332.89	1886.815
Production Credit Association (PCA)	0	0	120.00	1287.15	-175.50	-320.00	238.50	195.875	1346.025
Others	0	0	0	0	0	120.00	0	-471.00	-351.00
Total number of acres	0	338.15	65.62	4842.234	1863.78	8218.70	2095.36	4205.445	21629.289
Inventory value ($)									$10,273,912.28

[a] 1/1/87 - 7/1/87.

Table G.5A. Holding period of transferred land sold including the transactions of the Exchange Bank Receivership

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	1	1	2	2	3	7	3	4	23
4-6	0	0	0	2	2	2	0	3	9
7-9	0	0	0	1	1	2	1	2	7
10-12	0	0	0	0	0	0	2	0	2
13-18	0	0	0	0	4	6	7	1	18
19-24	0	0	0	1	0	1	2	1	5
25+	0	0	0	0	1	3	4	10	18

[a]1/1/87 - 7/1/87.

Table G.1B. Financially stressed agricultural land transfers by lender (grantee) excluding the transactions of the Exchange Bank receivership

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	150	2780.209	367.34	462.20	941.73	259.81	4961.289
Farmers Home Administration (FmHA)	0	0	0	207.10	517.56	240.00	91.50	0	1056.16
Federal Land Bank (FLB)	0	0	0	0	0	424.00	601.72	2432.10	3457.82
Individuals (real estate contracts)	160	431.55	150	531.01	813.56	4474.96	1798.31	1678.84	10038.23
Insurance companies	0	0	0	89.875	0	1069.99	688.05	593.99	2441.905
Production Credit Association (PCA)	0	0	120	1407.15	0	134.95	378.50	473.875	2514.475
Others	0	0	0	0	0	120.00	0	0	120.00
Total number of acres	160	431.55	420	5015.344	1698.46	6926.10	4499.81	5438.615	24589.879
Value based on ISU land value survey	$176,000.00	$518,723.10	$434,700.00	$4,599,070.45	$1,267,051.16	$3,712,389.60	$1,979,916.40	$2,583,342.13	$15,271,192.83

[a]1/1/87 - 7/1/87.

Table G.2B. Financially stressed agricultural land transfers by type of transaction (acres) excluding the transactions of the Exchange Bank Receivership

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	40	664.53	11.59	1486.99	1283.73	3710.475	7197.315
Notice of forfeitures	160	431.55	150	531.01	813.56	4474.96	1562.31	953.59	9076.98
Voluntary transfers	0	0	230	3819.804	873.31	964.15	1653.77	774.55	8315.684
Total number of acres	160	431.55	420	5015.344	1698.46	6926.10	4499.81	5438.615	24589.979
Total number of transactions	1	6	6	13	18	35	25	18	122

[a]1/1/87 - 7/1/87.

Table G.3B. Financially stressed transferred land sold (acres) excluding the transactions of the Exchange Bank Receivership

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	30.00	120.00	153.46	351.66	501.18	522.20	1678.50
Farmers Home Administration (FmHA)	0	0	0	167.1	0	80.00	0	0	247.10
Federal Land Bank (FLB)	0	0	0	0	0	0	0	0	0
Individuals (real estate contracts)	160	93.4	324.38	10.76	230.00	313.08	387.90	140.00	1659.52
Insurance companies	0	0	0	0	0	1.00	292.99	261.10	555.09
Production Credit Association (PCA)	0	0	0	120.00	175.50	454.95	140.00	278.00	1168.45
Others	0	0	0	0	0	0	0	471.00	471.00
Total number of acres	160	93.4	354.38	417.86	558.96	1200.69	1322.07	1672.30	5779.66
Value based on ISU land value survey	$176,000.00	$112,266.80	$366,783.30	$383,177.62	$416,984.16	$643,569.84	$581,710.80	$794,342.50	$3,474,835.02
Total number of transactions	1	1	3	5	5	14	11	11	51
Inventory value ($)									$2,745,338.50

[a] 1/1/87 - 7/1/87.

Table G.4B. Net - financially stressed land transfers minus financially stressed land transferred sold (acres) excluding the transactions of the Exchange Bank Receivership

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	120.00	2660.209	216.66	110.54	440.55	-262.39	3285.569
Farmers Home Administration (FmHA)	0	0	0	40.00	517.56	160.00	91.5	0	809.06
Federal Land Bank (FLB)	0	0	0	0	0	424.00	601.72	2432.10	3457.82
Individuals (real estate contracts)	0	338.15	-174.38	520.25	583.56	4161.88	1410.41	1538.84	8378.71
Insurance companies	0	0	0	89.875	0	1068.99	395.06	332.89	1886.815
Production Credit Association (PCA)	0	0	120.00	1287.15	-175.50	-320.00	238.50	195.875	1346.025
Others	0	0	0	0	0	120.00	0	-471.00	-351.00
Total number of acres	0	338.15	65.62	4597.484	1142.28	5725.41	3177.74	3766.315	18812.999
Inventory value ($)									$8,936,174.53

[a] 1/1/87 - 7/1/87.

Table G.5B. Holding period of transferred land sold excluding the transactions of the Exchange Bank Receivership

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	1	1	2	2	1	7	3	4	21
4-6	0	0	0	2	0	0	0	3	5
7-9	0	0	0	1	1	2	1	1	6
10-12	0	0	0	0	0	0	1	0	1
13-18	0	0	0	0	4	4	2	0	10
19-24	0	0	0	1	0	1	2	1	5
25+	0	0	0	0	1	3	2	7	13

[a]1/1/87 - 7/1/87.

APPENDIX H. IOWA COUNTY DATA

Table H.1. Financially stressed agricultural land transfer by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	268.19	0	677.51	160.00	200.00	1570.68	1621.09	619.64	5117.11
Farmers Home Administration (FmHA)	0	0	149.88	0	192.05	587.93	281.00	531.43	1742.29
Federal Land Bank (FLB)	0	0	0	0	0	0	2170.88	3152.73	5323.61
Individuals (real estate contracts)	194.50	145.62	64.71	0	490.00	1544.63	3144.99	0	5584.45
Insurance Companies	0	0	0	0	454.89	0	535.76	0	990.65
Production Credit Association (PCA)	0	0	0	0	0	435.19	0	50	485.19
Others	0	0	0	22.25	0	0	467.29	0	489.54
Total number of acres	462.69	145.62	892.10	182.25	1336.94	4138.43	8221.01	4353.80	19732.84
Value based on ISU land value survey	$903,633.57	$293,861.16	$1,502,296.40	$293,240.25	$1,823,586.16	$3,919,093.21	$6,354,840.73	$3,722,499.00	$18,813,050.48

[a]1/1/87 - 7/1/87.

Table H.2. Financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	22.25	0	0	562.8	365.7	950.75
Notice of forfeitures	194.5	145.62	64.71	0	490	1384.63	3115.99	0	5395.45
Voluntary transfers	268.19	0	827.39	160	846.94	2753.8	4542.22	3988.1	13,386.64
Total number of acres	462.69	145.62	892.1	182.25	1336.94	4138.43	8221.01	4353.8	19,732.84
Total number of transactions	3	3	6	2	7	20	50	24	115

[a]1/1/87 - 7/1/87.

Table H.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	0	0	55.41	0	729	932.1	1716.51
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	0	0	0	240	1522.16	1762.16
Individuals (real estate contracts)	0	0	54.5	123.12	210.21	0	433.44	562.88	1384.15
Insurance companies	0	0	0	0	0	0	0	0	0
Production Credit Association (PCA)	0	0	0	0	0	0	0	160	160
Others	0	0	0	0	22.25	0	467.29	0	489.54
Total number of acres	0	0	54.5	123.12	287.87	0	1869.73	3177.14	5512.36
Value based on ISU land value survey	$0.00	$0.00	$91,778.00	$198,100.08	$392,654.68	$0.00	$1,445,301.29	$2,716,454.70	$4,844,288.75
Total number of transactions	0	0	2	2	4	0	13	21	42

[a]1/1/87 - 7/1/87.

Table H.4. Net - financially stressed land transfers minus financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	268.19	0	677.51	160	144.59	1570.68	892.09	-312.46	3400.6
Farmers Home Administration (FmHA)	0	0	149.88	0	192.05	587.93	281	531.43	1742.29
Federal Land Bank (FLB)	0	0	0	0	0	0	1930.88	1630.57	3561.45
Individuals (real estate contracts)	194.5	145.62	10.21	-123.12	279.79	1544.63	2711.55	-562.88	4200.3
Insurance companies	0	0	0	0	454.89	0	535.76	0	990.65
Production Credit Association (PCA)	0	0	0	0	0	435.19	0	-110	325.19
Others	0	0	0	22.25	-22.25	0	0	0	0
Total number of acres	462.69	145.62	837.60	59.13	1049.07	4138.43	6351.28	1176.66	14,220.48
Inventory value ($)									$12,158,510.40

[a]1/1/87 - 7/1/87.

Table H.5. Holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	1	0	2	0	15	5	23
4-6	0	0	0	0	2	0	0	2	4
7-9	0	0	1	0	0	0	3	4	8
10-12	0	0	0	0	0	0	0	4	4
13-18	0	0	0	0	0	0	0	13	13
19-24	0	0	0	2	1	0	0	1	4
25+	0	0	0	0	1	0	1	2	4

[a]1/1/87 - 7/1/87.

Table H.6. Corn suitability rating (CSR) of transferred land

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	1	5	0	4	14	31	22	77
Average CSR = 58[b]	0	0	0	0	0	2	1	2	5
Below average CSR	6	1	4	1	7	18	47	16	100

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average CSR category if tract's average CSR was between 58.0 - 58.9.

Table H.7. Corn suitability rating (CSR) of transferred land sold

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	0	1	0	1	0	5	11	18
Average CSR = 58[b]	0	0	0	0	0	0	0	1	1
Below average CSR	0	0	1	2	2	0	12	16	33

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average CSR category if tract's average CSR was between 58.0 - 58.9.

APPENDIX I. LOUISA COUNTY DATA

Table I.1. Financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	25.26	0	80.00	300.09	457.08	267.038	1456.50	297.08	2883.048
Farmers Home Administration (FmHA)	0	0	50.00	0	60.00	314.30	0	0	424.30
Federal Land Bank (FLB)	0	0	0	0	0	608.359	558.993	340.00	1507.352
Individuals (real estate contracts)	10.00	0	139.46	0	249.34	572.5	0	0	971.30
Insurance companies	0	0	0	111.2	68.30	0	2548.87	418.74	3147.11
Production Credit Association (PCA)	0	0	0	0	0	0	0	90.08	90.08
Other	0	0	0	0	0	229.50	0	0	229.50
Total number of acres	35.26	0	269.46	411.29	834.72	1991.697	4564.363	1145.90	9252.69
Value based on ISU land value survey	$74,328.08	$0.00	$523,291.32	$757,596.18	$1,345,568.64	$2,296,426.64	$4,126,184.15	$1,127,565.60	$10,250,960.61

[a]1/1/87 - 7/1/87.

Table I.2. Financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	111.2	68.3	0	410.73	758.74	1348.97
Notice of forfeitures	10	0	139.46	0	249.34	0	0	0	398.8
Voluntary transfers	25.26	0	130	300.09	517.08	1991.697	4153.633	387.16	7504.92
Total number of acres	35.26	0	269.46	411.29	834.72	1991.697	4564.363	1145.9	9252.69
Total number of transactions	2	0	5	3	7	12	13	8	50

[a]1/1/87 - 7/1/87.

Table I.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	24.295	0	368.79	300.9	116.118	916.815	1726.918
Farmers Home Administration (FmHA)	0	0	0	0	50	0	0	0	50
Federal Land Bank (FLB)	0	0	0	0	0	30	254.08	710.072	944.152
Individuals (real estate contracts)	0	0	23.92	0	0	0	0	126.591	150.511
insurance companies	0	0	0	0	0	0	0	111.2	111.2
Production Credit Association (PCA)	0	0	0	0	0	0	0	90.08	90.08
Others	0	0	0	0	0	0	0	0	0
Total number of acres	0	0	48.215	0	418.79	330.9	370.198	1954.758	3122.861
Value based on ISU land value survey	$0.00	$0.00	$93,633.53	$0.00	$675,089.48	$381,527.70	$334,658.99	$1,923,481.87	$3,408,391.57
Total number of transactions	0	0	3	0	3	4	7	17	34

[a]1/1/87 - 7/1/87.

Table I.4. Net - financially stressed land transfers minus financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	25.26	0	55.705	300.09	88.29	-33.862	1340.382	-619.735	1156.13
Farmers Home Administration (FmHA)	0	0	50	0	10	314.3	0	0	374.3
Federal Land Bank (FLB)	0	0	0	0	0	578.359	304.913	-370.072	513.2
Individuals (real estate contracts)	10	0	115.54	0	249.34	572.5	0	-126.591	820.789
Insurance companies	0	0	0	111.2	68.3	0	2548.87	307.54	3035.91
Production Credit Association (PCA)	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	229.5	0	0	229.5
Total number of acres	35.26	0	221.245	411.29	415.93	1660.797	4194.165	-808.858	6129.829
Inventory value (est.)									$6,031,751.74

[a]1/1/87 - 7/1/87.

Table I.5. Holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	2	0	3	0	1	4	10
4-6	0	0	0	0	1	1	2	4	8
7-9	0	0	0	0	0	0	3	6	9
10-12	0	0	0	0	0	0	1	1	2
13-18	0	0	0	0	0	0	1	2	3
19-24	0	0	2	0	0	0	0	2	4
25+	0	0	0	0	1	3	0	3	7

[a]1/1/87 - 7/1/87.

APPENDIX J. SHELBY COUNTY DATA

Table J.1. Financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	40	519.2	115.00	1575.30	1162.04	1183.37	4594.91
Farmers Home Administration (FmHA)	0	0	0	0	473.13	570.52	147.00	279.99	1470.64
Federal Land Bank (FLB)	0	0	0	0	162.00	785.21	1120.16	973.09	3040.46
Individuals (real estate contracts)	0	40	0	0	754.40	488.13	547.91	339.88	2170.32
Insurance companies	0	0	0	0	0	0	511.80	352.38	864.18
Production Credit Association (PCA)	0	0	0	0	0	0	430.00	280.00	710.00
Other	0	0	0	0	0	0	0	0	0
Total number of acres	0	40	40	519.2	1504.53	3419.16	3918.91	3408.71	12850.51
Value based on ISU land value survey	$0.00	$77,480.00	$63,800.00	$771,531.20	$1,704,632.49	$2,854,998.60	$2,851,209.75	$2,781,507.36	$11,095,159.40

[a]1/1/87 - 7/1/87.

Table J.2. Financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	0	0	112.79	1110	1003.54	2226.33
Notice of forfeitures	0	40	0	0	754.4	375.34	547.91	216.33	1933.98
Voluntary transfers	0	0	40	519.2	750.13	2931.03	2261	2188.84	8690.2
Total number of acres	0	40	40	519.2	1504.53	3419.16	3918.91	3408.71	12,850.51
Total number of transactions	0	1	1	2	7	20	25	25	81

[a]1/1/87 - 7/1/87.

Table J.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	0	40	319.2	350.74	1106.73	621.89	2438.56
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	279.99	279.99
Federal Land Bank (FLB)	0	0	0	0	0	189	668	684.36	1541.36
Individual (real estate contracts)	0	0	0	0	0	0	0	0	0
Insurance companies	0	0	0	0	0	0	0	0	0
Production Credit Association (PCA)	0	0	0	0	0	0	0	430	430
Others	0	0	0	0	0	0	0	0	0
Total number of acres	0	0	0	40	319.2	539.74	1774.73	2016.24	4689.91
Value based on ISU land value survey	$0.00	$0.00	$0.00	$59,440.00	$361,653.60	$450,682.90	$1,286,679.25	$1,645,251.84	$3,803,707.59
Total number of transactions transactions	0	0	0	1	1	6	13	18	39

[a] 1/1/87 - 7/1/87.

Table J.4. Net - financially stressed land transfers minus financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	40	479.2	-204.2	1224.56	55.31	561.48	2156.35
Farmers Home Administration (FmHA)	0	0	0	0	473.13	570.52	147	0	1190.65
Federal Land Bank (FLB)	0	0	0	0	162	596.21	452.16	288.73	1499.1
Individuals (real estate contracts)	0	40	0	0	754.4	488.13	547.91	339.88	2170.32
Insurance companies	0	0	0	0	0	0	511.8	352.38	864.18
Production Credit Association (PCA)	0	0	0	0	0	0	430	-150	280
Others	0	0	0	0	0	0	0	0	0
Total number of acres	0	40	40	479.2	1185.33	2879.42	2144.18	1392.47	8160.60
Inventory value ($)									$6,659,049.60

[a] 1/1/87 - 7/1/87.

Table J.5. Holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	0	0	0	4	7	9	20
4-6	0	0	0	1	2	1	3	5	12
7-9	0	0	0	0	0	2	1	6	9
10-12	0	0	0	0	0	0	0	6	6
13-18	0	0	0	0	0	0	1	4	5
19-24	0	0	0	0	0	0	1	4	5
25+	0	0	0	0	0	0	1	4	5

[a]1/1/87 - 7/1/87.

Table J.6. Corn suitability rating (CSR) of transferred land

	Frequency of occurrence period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	1	1	3	4	24	32	29	94
Average CSR = 58.2[b]	0	0	0	0	0	0	1	0	1
Below average CSR	0	0	1	0	7	3	4	3	18

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average CSR category if tract's average CSR was between 58.0 - 58.9.

Table J.7. Corn suitability rating (CSR) of transferred land sold

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	0	0	0	2	5	10	16	41
Average CSR = 58.2[b]	0	0	0	0	0	0	0	1	8
Below average CSR	0	0	0	1	0	0	3	3	7

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average CSR category if tract's average CSR was between 58.0 - 58.9.

APPENDIX K. UNION COUNTY DATA

Table K.1. Financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	0	1396.85	2523.34	1072.78	1853.17	0	6846.14
Farmers Home Administration (FmHA)	0	0	0	0	0	100.00	734.84	0	834.84
Federal Land Bank (FLB)	0	0	0	0	0	80.00	0	0	80.00
Individuals (real estate contracts)	0	80	570.45	70.00	1762.57	2912.24	3044.371	240.00	8679.631
Insurance companies	0	0	0	0	0	0	1444.00	865.10	2309.10
Production Credit Association (PCA)	0	0	1080.685	1496.66	41.54	411.32	0	0	3030.205
Others	0	0	32.50	0	0	0	0	0	32.50
Total number of acres	0	80	1683.635	2963.51	4327.45	4576.34	7076.381	1105.10	21812.416
Value based on ISU land value survey	$0.00	$104,320.00	$1,915,976.63	$2,898,312.78	$3,327,809.05	$2,553,597.72	$3,297,593.55	$558,075.50	$14,655,685.23

[a]1/1/87 - 7/1/87.

Table K.2. Financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	1345.94	0	657.61	1444	0	3447.55
Notice of forfeitures	0	80	570.45	70	1632.57	2872.24	3044.371	240	8509.631
Voluntary transfers	0	0	1113.185	1547.57	2694.88	1046.49	2588.01	865.1	9855.235
Total number of acres	0	80	1683.635	2963.51	4327.45	4576.34	7076.381	1105.1	21812.416
Total number of transactions	0	1	7	14	23	30	38	3	116

[a]1/1/87 - 7/1/87.

Table K.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	0	85	611.7	203.5	1019.17	1580.21	3499.58
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	0	0	0	80	0	80
Individuals (real estate contract)	0	0	160	170.45	0	450	142.621	950.3	1873.371
Insurance companies	0	0	0	0	0	0	0	785.1	785.1
Production Credit Association (PCA)	0	0	0	1359.675	453.28	150.94	660.24	80	2704.135
Others	0	0	32.5	0	0	0	0	0	32.5
Total number of acres	0	0	192.5	1615.125	1064.98	804.44	1902.031	3395.61	8974.686
Value based on ISU land value survey	$0.00	$0.00	$219,065.00	$1,579,592.25	$818,969.62	$448,877.52	$886,346.45	$1,714,783.05	$5,667,633.89
Total number of transactions	0	0	2	10	11	9	15	18	65

[a] 1/1/87 - 7/1/87.

Table K.4. Net - financially stressed land transfers minus financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	0	1311.85	1911.64	869.28	834	-1580.21	3346.56
Farmers Home Administration (FmHA)	0	0	0	0	0	100	734.84	0	834.84
Federal Land Bank (FLB)	0	0	0	0	0	80	-80	0	0
Individuals (real estate contracts)	0	80	410.45	-100.45	1762.57	2462.24	2901.75	-710.3	6806.26
Insurance companies	0	0	0	0	0	0	1444	80	1524
Production Credit Association (PCA)	0	0	1080.685	136.985	-411.74	260.38	-660.24	-80	326.07
Others	0	0	0	0	0	0	0	0	0
Total number of acres	0	80	1491.135	1348.385	3262.47	3771.9	5174.35	-2290.51	12,837.73
Inventory value (est.)									$6,483,053.65

[a]1/1/87 - 7/1/87.

Table K.5. Holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	3	2	2	3	4	5	19
4-6	0	0	0	1	0	0	1	6	8
7-9	0	0	0	2	4	0	2	3	11
10-12	0	0	0	2	1	1	2	1	7
13-18	0	0	0	3	1	1	0	1	6
19-24	0	0	0	4	1	2	2	2	11
25+	0	0	0	0	3	3	4	7	17

[a]1/1/87 - 7/1/87.

Table K.6. Corn suitability rating (CSR) of transferred land

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	0	2	7	7	20	13	1	50
Average CSR = 55.2[b]	0	0	0	0	0	2	2	0	4
Below average CSR	0	1	12	15	26	24	42	7	127

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average CSR category if tract's average CSR was between 55.0 - 55.9.

Table K.7. Corn suitability rating (CSR) of transferred land sold

	Frequency of occurrence per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Above average CSR	0	0	0	4	1	3	6	7	21
Average CSR = 55.2[b]	0	0	0	0	0	0	1	1	2
Below average CSR	0	0	2	11	8	6	13	23	63

[a]1/1/87 - 7/1/87.

[b]Tract recorded in average CSR category if tract's average CSR was between 55.0 - 55.9.

APPENDIX L. WRIGHT COUNTY DATA

Table L.1. Financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	0	0	200	611.8	644.95	309.3	1766.05
Farmers Home Administration (FmHA)	0	0	0	80	0	0	167.28	0	247.28
Federal Land Bank (FLB)	0	0	0	80	128.295	1235.3	2564.83	782.76	4791.185
Individuals (real estate contracts)	0	0	17.67	147	40	380	547	80	1211.67
Insurance companies	0	0	0	0	160	0	1099.1	921.58	2180.68
Production Credit Association (PCA)	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0
Total number of acres	0	0	17.67	307	528.295	2227.1	5023.16	2093.64	10,196.865
Value based on ISU land value survey	$0	$0	$44,369	$737,107	$992,138	$2,803,919	$6,324,158	$2,562,615	$13,464,307

[a] 1/1/87 - 7/1/87.

Table L.2. Financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	27	0	0	80	761.58	868.58
Notice of forfeiture	0	0	17.67	120	40	380	707	80	1344.67
Voluntary transfer	0	0	0	160	488.295	1847.1	4236.16	1252.06	7983.615
Total number of acres	0	0	17.67	307	528.295	2227.1	5023.16	2093.64	10,196.865
Total number of transactions	0	0	1	4	5	13	32	16	71

[a]1/1/87 - 7/1/87.

Table L.3. Financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	32.3	0	200	0	0	280	358.5	317.85	1188.65
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	80	4.8	283.495	1635.6	1124.82	3128.715
Individuals (real estate contracts)	0	0	0	17.67	40	27	80	0	164.67
Insurance companies	0	0	0	0	0	0	0	0	0
Production Credit Association (PCA)	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0
Total number of acres	32.3	0	200	97.67	44.8	590.495	2074.1	1442.67	4482.035
Value based on ISU land value survey	$94,348	$0.00	$502,200	$234,506	$84,134	$743,433	$2,188,176	$1,765,828	$5,612,625
Total number of transactions	1	0	1	2	2	6	17	13	42

[a]1/1/87 - 7/1/87.

Table L.4. Net - financially stressed land transfers minus financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	-32.3	0	-200	0	200	331.8	286.45	-8.55	577.4
Farmers Home Administration (FmHA)	0	0	0	80	0	0	167.28	0	247.28
Federal Land Bank (FLB)	0	0	0	0	123.495	951.805	929.23	-342.06	1662.47
Individuals (real estate contracts)	0	0	17.67	129.33	0	353	467	80	1047
Insurance companies	0	0	0	0	160	0	1099.1	921.58	2180.68
Production Credit Association (PCA)	0	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0	0
Total number of acres	-32.3	0	-182.33	209.33	483.495	1636.605	2949.06	650.97	5714.83
Inventory value ($)									$6,994,951.92

[a]1/1/87 - 7/1/87.

Table L.5. Holding period of transferred land sold

# of months	Frequency per holding period per year								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	0	2	1	3	10	7	23
4-6	0	0	0	0	0	0	3	3	6
7-9	0	0	0	0	1	0	4	1	6
10-12	0	0	0	0	0	2	0	2	4
13-18	0	0	0	0	0	1	1	0	2
19-24	0	0	0	0	0	0	0	0	0
25+	1	0	1	0	0	0	0	0	2

[a]1/1/87 - 7/1/87.

APPENDIX M. ESTIMATION FORMULAS

Define:

y_{ij} = characteristic of jth county; ith stratum,

x_{ij} = land in farms; jth county; ith stratum,

n_i = number of counties in sample, ith stratum,

N_i = number of counties in population, ith stratum,

$X_i = \sum_{j=1}^{N_i} x_i$ = land in farms, ith stratum.

Estimation:

(1) $\hat{y}_i = (X_i)(1/n_i) \sum_{j=1}^{n_i} (y_{ij}/x_{ij})$ estimated total, ith stratum

(2) $\hat{Y} = \sum_{i=1}^{5} \hat{y}_{ij}$ estimated total, state

(3) $\hat{V}(\hat{y}_i) = (x_i^2)(1/n_i)(1/n_i - 1) \sum_{j} (y_{ij}/x_{ij} - 1/n_{ij}\ y_{ij}/x_{ij})^2$

(4) $\hat{V}(\hat{Y}) = \sum_{i} \hat{V}(\hat{y}_i)$.

Note: Standard error is calculated by taking the square root of the variance.

APPENDIX N. NORTHEAST DAIRY REGION ESTIMATIONS

Table N.1. Estimated financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	1509.71	1392.59	342.72	6352.63	13124.35	21601.81	43732.25	14539.65	102595.70
Farmers Home Administration (FmHA)	0	0	0	0	882.59	0	2533.60	1450.88	4867.06
Federal Land Bank (FLB)	0	0	0	0	231.96	14657.90	23192.44	11983.94	50066.24
Individuals (real estate contracts)	3004.28	1778.14	6074.59	8455.64	17130.89	38055.36	37379.74	906.80	112785.40
Insurance companies	0	0	0	0	2215.99	29670.09	21438.56	13946.37	67271.00
Production Credit Association (PCA)	0	0	0	0	0	0	7558.58	0	7558.58
Others	8232.04	0	0	0	0	11361.00	2760.07	2002.77	24355.88
Total number of acres	12746.02	3170.65	6417.31	14808.27	33585.77	115346.10	138595.20	44830.41	369499.90
Estimated value (millions of dollars)	$15.825	$5.236	$9.239	$22.679	$43.606	$107.068	$99.035	$35.777	$338.465

[a]1/1/87 - 7/1/87.

Table N.2. Estimated financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	1687.47	0	0	1849.88	9093.96	18750.33	10262.37	41644.01
Notice of forfeitures	3004.28	90.68	6074.29	8455.64	17130.89	38055.36	37379.74	906.8	111097.9
Voluntary transfers	9741.75	1392.59	342.72	6352.63	14605.01	68196.84	82465.16	33661.24	216757.9
Total number of acres	12746.02	3170.65	6417.31	14808.27	33585.77	115346.1	138595.2	44830.41	369499.9
Total number of transactions	60.48	43.84	51.91	115.38	275.11	515.94	965.41	266.54	2294.61

[a]1/1/87 - 7/1/87.

Table N.3. Estimated financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	1385.75	704.81	2469.3	3598.36	5087.00	21036.45	20536.86	54818.63
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	0	0
Federal Land Bank (FLB)	0	0	0	0	231.96	0	1813.60	16953.97	18999.53
Individuals (real estate contracts)	0	0	1130.97	1586.9	443.4	4401.57	7886.78	8460.58	23910.20
Insurance companies	0	0	0	0	0	0	84.97	1700.25	1785.21
Production Credit Association (PCA)	0	0	0	0	0	0	5419.59	1297.86	6717.45
Others	0	8002.93	0	0	0	0	2760.07	514.08	11277.08
Total number of acres	0	9388.68	1835.87	4056.2	4273.72	9488.57	39001.46	49463.60	117508.10
Value based on ISU land value survey (millions of dollars)	$0.00	$12.23	$2.86	$8.44	$4.57	$8.51	$23.02	$36.59	$96.22
Total number of transactions	0	34.77	17.64	54.41	61.98	124.45	420.76	466.10	1180.11

[a] 1/1/87 - 7/1/87.

Table N.4. Estimated lender agricultural land inventory (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	1509.71	6.84	-362.09	3883.32	9525.99	16514.81	22695.8	-5997.21	47777.07
Farmers Home Administration (FmHA)	0	0	0	0	882.59	0	2533.6	1450.88	4867.06
Federal Land Bank (FLB)	0	0	0	0	0	14657.90	21378.84	-4970.03	31066.71
Individuals (real estate contracts)	3004.28	1778.14	4943.62	6868.74	16687.49	33653.79	29492.95	-7553.78	88875.23
Insurance companies	0	0	0	0	2215.99	29670.09	21353.59	12246.12	65485.79
Production Credit Association (PCA)	0	0	0	0	0	0	2138.99	-1297.86	841.13
Others	8232.04	-8002.93	0	0	0	11361.01	0	1488.69	13078.81
Total number of acres	12746.02	-6217.95	4581.44	10752.07	29312.05	105857.40	99593.77	-4633.19	251991.80
Inventory value (millions of dollars)									$207.97

[a] 1/1/87 - 7/1/87.

Table N.5. Estimated holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	9.07	0	54.41	70.54	79.61	217.70	87.18	518.51
4-6	0	77.11	0	0	8.57	8.57	86.68	97.25	278.18
7-9	0	0	0	0	0	17.64	96.75	113.88	228.27
10-12	0	0	0	0	0	9.07	17.64	52.41	79.11
13-18	0	0	9.07	8.57	0	18.14	35.77	61.98	133.52
19-24	0	0	0	9.07	0	0	17.64	62.48	89.19
25+	0	0	8.57	0	8.57	9.07	8.57	96.25	131.03

[a] 1/1/87 - 7/1/87.

APPENDIX O. EASTERN LIVESTOCK REGION ESTIMATIONS

Table 0.1. Estimated financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	2736.30	0	7135.50	5559.30	8078.40	17666.20	34502.90	9611.00	85289.60
Farmers Home Administration (FmHA)	0	0	2023.58	0	2536.88	9565.85	2502.35	4732.46	21361.12
Federal Land Bank (FLB)	0	0	0	0	0	8381.62	27033.50	32759.86	68174.97
Individuals (real estate contracts)	1869.83	1296.77	2497.65	0	7798.79	21642.74	28006.61	0	63112.38
Insurance companies	0	0	0	1532.05	4991.86	0	39887.88	5769.16	52180.95
Production Credit Association (PCA)	0	0	0	0	0	3875.43	0	1687.33	5561.76
Others	0	0	0	198.14	0	3162.92	4161.29	0	7521.35
Total number of acres	4606.12	1296.77	11656.75	7289.48	23405.94	64293.79	136094.40	54558.79	303202.10
Estimated value (millions of dollars)	$9.071	$2.617	$20.588	$13.049	$34.778	$66.539	$113.440	$48.684	$308.765

[a]1/1/87 - 7/1/87.

Table 0.2. Estimated financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	1730.19	941	0	10670.62	13710.09	27051.9
Notice of forfeitures	1869.83	1296.77	2497.65	0	7798.79	12330.34	27748.36	0	53541.73
Voluntary transfers	2736.29	0	9159.1	5559.29	14666.16	51963.45	97675.5	40848.7	222608.4
Total number of acres	4606.12	1296.77	11656.75	7289.48	23405.94	64293.79	136094.4	54558.79	303202.1
Total number of transactions	54.27	26.72	122.32	59.14	158.78	343.43	624.36	323.94	1712.96

[a]1/1/87 - 7/1/87.

Table 0.3. Estimated financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	334.72	0	5574.41	4145.63	8091.66	20931.84	39078.26
Farmers Home Administration (FmHA)	0	0	0	0	688.87	0	0	0	688.87
Federal Land Bank (FLB)	0	0	0	0	0	413.32	5637.80	23338.03	29389.15
Individuals (real estate contracts)	0	0	814.89	1096.4	1871.95	0	3859.85	6756.63	14399.72
Insurance companies	0	0	0	0	0	0	0	1532.05	1532.05
Production Credit Association (PCA)	0	0	0	0	0	0	0	2665.89	2665.89
Others	0	0	0	0	198.14	0	4161.29	0	4359.43
Total number of acres	0	0	1149.6	1096.4	8333.37	4558.95	21750.6	55224.43	92113.37
Value based on ISU land value survey (millions of dollars)	$0.00	$0.00	$2.11	$1.76	$12.80	$5.26	$17.48	$50.69	$90.10
Total number of transactions	0	0	59.13	17.81	76.95	55.11	212.21	421.22	842.45

[a] 1/1/87 - 7/1/87.

Table 0.4. Estimated lender agricultural land inventory (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	2736.29	0	6800.80	5558.5	2503.29	13520.57	26410.94	-11320.80	46211.35
Farmers Home Administration (FmHA)	0	0	2023.58	0	1848.01	9565.85	2502.35	4732.46	20672.24
Federal Land Bank (FLB)	0	0	0	0	0	7968.30	21395.69	9421.83	38785.82
Individuals (real estate contracts)	1869.83	1296.77	1683.76	-1096.40	5926.83	21642.74	24146.76	-6756.63	48712.66
Insurance companies	0	0	0	1532.05	4991.86	0	39887.88	4237.11	50648.90
Production Credit Association (PCA)	0	0	0	0	0	3875.43	0	-978.56	2895.87
Others	0	0	0	198.14	-198.14	3161.92	0	0	3161.92
Total number of acres	4606.12	1296.77	10507.14	6193.08	15072.57	59734.84	114343.80	-665.64	211088.70
Inventory value (millions of dollars)									$195.10

[a] 1/1/87 - 7/1/87.

Table 0.5. Estimated holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	36.46	0	59.14	0	147.35	99.64	342.59
4-6	0	0	0	0	31.59	13.78	27.55	72.92	145.84
7-9	0	0	8.91	0	0	0	68.15	118.27	195.24
10-12	0	0	0	0	0	0	13.77	49.40	63.18
13-18	0	0	0	0	0	0	13.77	143.32	157.10
19-24	0	0	27.55	17.81	8.91	0	0	36.46	90.73
25+	0	0	0	0	22.68	41.33	8.91	59.14	132.06

[a]1/1/87 - 7/1/87.

APPENDIX P. CASH GRAIN REGION ESTIMATIONS

Table P.1. Estimated financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	1075.0	8056.9	4514.2	13832.1	24307.6	10925.9	2540.3	65251.9
Farmers Home Administration (FmHA)	0	0	2487.5	509.7	537.5	1590.1	2684.1	644.4	8453.4
Federal Land Bank (FLB)	67.7	0	0	509.7	2391.5	10820.4	32577.8	17766.8	64133.9
Individuals (real estate contracts)	647.6	788.7	1572.2	936.5	5594.7	9070.9	17450.9	2588.7	38650.2
Insurance companies	0	0	0	0	3962.0	0	10463.9	5871.4	20297.3
Production Credit Association (PCA)	0	1422.5	0	356.0	1574.2	1625.0	4973.4	716	10667.0
Others	0	0	0	0	0	0	3356.6	65.6	3422.2
Total number of acres	715.3	3286.1	12116.6	6826.0	27892.0	47414.0	82432.6	30193.2	210875.8
Estimated value (millions of dollars)	$1.474	$7.822	$26.078	$13.680	$44.710	$53.856	$85.447	$33.107	$266.175

[a]1/1/87 - 7/1/87.

Table P.2. Estimated financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	0	300.4	398.2	0	7385.3	13185.9	21269.9
Notice of forfeitures	647.6	788.7	1572.2	764.5	4788.5	8802.2	14189.1	2588.7	34141.45
Voluntary transfers	67.7	2497.4	10544.4	5761.1	22705.3	38611.9	60858.2	14418.6	155464.6
Total number of acres	715.3	3286.1	12116.6	6826.0	27892.0	47414.0	82432.6	30193.2	210875.9
Total number of transactions	13.1	33.1	99.5	104.5	237.6	342.9	622.0	254.2	1707.0

[a]1/1/87 - 7/1/87.

Table P.3. Estimated financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	205.8	1036.1	1396.9	2437.7	2207.8	6393.0	10043.9	5915.2	29636.3
Farmers Home Administration (FmHA)	0	0	1175.7	0	0	0	0	0	1175.7
Federal Land Bank (FLB)	0	0	0	509.7	30.6	3380.3	15556.6	15344.3	34821.5
Individuals (real estate contracts)	0	0	32.8	329.0	395.9	1943	2936.1	1049.4	6686.2
Insurance companies	0	0	0	0	0	0	0	104.1	104.1
Production Credit Association (PCA)	0	0	0	138.5	0	0	873.4	1694.1	2705.9
Others	0	0	0	0	0	0	1803.9	0	1803.9
Total number of acres	205.80	1036.10	2605.40	3414.90	2634.20	11716.30	31213.90	24107.10	76933.70
Value based on ISU land value survey (millions of dollars)	$0.60	$2.78	$6.21	$6.45	$4.05	$12.79	$29.39	$25.65	$87.92
Total number of transactions	6.4	6.7	26.4	52.3	65.5	157.2	326.8	275.1	916.4

[a] 1/1/87 - 7/1/87.

Table P.4. Estimated lander agricultural land inventory (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	-205.8	38.8	6660.0	1999.2	11624.4	17914.6	882.0	-3374.9	35538.3
Farmers Home Administration (FmHA)	0	0	1311.8	509.7	537.5	1590.1	2684.1	644.4	7277.7
Federal Land Bank (FLB)	67.7	0	0	0	2361.0	7440.1	17021.2	2422.5	29312.4
Individuals (real estate contracts)	647.6	788.7	1539.4	607.5	5198.8	7127.9	14514.9	1539.3	31964.0
Insurance companies	0	0	0	0	3962.0	0	10463.9	5767.3	20193.2
Production Credit Association (PCA)	0	1422.5	0	217.5	1574.2	1625.0	4100.0	-978	7961.1
Others	0	0	0	0	0	0	1552.7	65.6	1681.2
Total number of acres	509.5	2250.0	9511.2	3333.9	25257.8	35697.7	51218.7	6086.1	133865.0
Inventory value (millions of dollars)									$143.529

[a] 1/1/87 - 7/1/87.

Table P.5. Estimated holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	6.7	39.3	39.5	45.7	142.7	117.2	391.1
4-6	0	6.7	13.3	0	0	13.1	65.8	59.3	158.2
7-9	0	0	6.7	6.6	12.9	26.4	65.5	46.5	164.6
10-12	0	0	0	0	6.6	19.5	6.6	25.9	58.4
13-18	0	0	0	6.6	0	19.5	26.2	6.7	59.0
19-24	0	0	0	0	0	13.4	33.1	6.6	53.1
25+	6.4	0	6.4	6.6	6.6	26.4	19.8	33.1	105.2

[a]1/1/87 - 7/1/87.

APPENDIX Q. WESTERN LIVESTOCK REGION ESTIMATIONS

Table Q.1. Estimated financially stressed agricultural land transfers by lender (grantee) (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	233.7	2930.6	5628.9	1833.6	23667.5	17283.5	16567.8	68145.6
Farmers Home Administration (FmHA)	0	0	0	0	5129.4	6185.2	1593.7	4148.6	17056.9
Federal Land Bank (FLB)	0	0	0	2671.4	7602.9	27517.6	39768.0	23055.8	100615.6
Individuals (real estate contracts)	0	433.7	0	1780.9	16848.1	11124.8	15165.8	8137.1	53490.3
Insurance companies	0	0	0	0	5342.8	11064.0	8743.2	3820.3	28970.3
Production Credit Association (PCA)	0	0	0	0	1702.6	0	5552.3	3035.6	10290.5
Other	0	0	0	0	0	0	445.2	0	445.2
Total number of acres	0	667.4	2930.6	10081.2	38459.3	79559.1	88551.6	58765.1	279014.3
Estimated value (millions of dollars)	$0.000	$1.373	$5.341	$16.437	$57.550	$70.129	$69.129	$50.875	$270.833

[a] 1/1/87 - 7/1/87.

Table Q.2. Estimated financially stressed agricultural land transfers by type of transaction (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	2226.2	2671.4	11660.5	8791.7	23778.0	15615.2	64742.9
Notice of forfeitures	0	667.4	0	1780.9	15067.2	9345.4	13353.2	6797.6	47011.8
Voluntary transfers	0	0	704.5	5628.9	11731.6	61422.0	51420.4	36352.3	167259.6
Total number of acres	0	667.4	2930.6	10081.2	38459.3	79559.1	88551.6	58765.1	279014.3
Total number of transactions	0	22.0	44.2	43.9	265.1	428.3	616.1	404.6	1824.3

[a]1/1/87 - 7/1/87.

Table Q.3. Estimated financially stressed transferred land sold (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	0	433.7	3499.4	4451.8	13327.4	10304.0	32016.2
Farmers Home Administration (FmHA)	0	0	0	0	0	0	0	3035.5	3035.5
Federal Land Bank (FLB)	0	0	0	0	382.9	8104.1	12017.8	18633.1	39137.9
Individuals (real estate contracts)	0	0	0	445.2	0	0	0	445.2	890.5
Insurance companies	0	0	0	0	0	0	3561.9	3561.9	7123.7
Production Credit Association (PCA)	0	0	0	0	0	0	0	4661.8	4661.8
Others	0	0	0	0	0	0	194.8	194.8	389.6
Total number of acres	0	0	0	878.9	3882.3	12555.8	29101.8	40836.3	87255.2
Estimated value (millions of dollars)	$0.000	$0.000	$0.000	$1.452	$4.665	$11.067	$22.154	$35.865	$75.203
Total number of transactions	0	0	0	22.0	33.1	143.0	241.1	395.5	834.7

[a]1/1/87 - 7/1/87.

Table Q.4. Estimated lander agricultural land inventory (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	233.7	2930.6	5195.2	-1665.8	19215.7	3956.2	6263.8	36129.4
Farmers Home Administration (FmHA)	0	0	0	0	5129.4	6185.2	1593.7	1113.1	14021.4
Federal Land Bank (FLB)	0	0	0	2671.4	7220.0	19413.6	27750.1	4422.6	61477.7
Individuals (real estate contracts)	0	433.7	0	1335.7	16848.1	11124.8	15165.8	7691.9	52599.8
Insurance companies	0	0	0	0	5342.8	11064.0	5181.3	258.4	21846.5
Production Credit Association (PCA)	0	0	0	0	1702.6	0	5552.3	-1626.2	5628.7
Others	0	0	0	0	0	0	250.4	-194.8	55.7
Total number of acres	0	667.4	2930.6	9202.3	34577.0	67003.3	59449.8	17928.8	191759.1
Inventory value (millions of dollars)									$170.316

[a] 1/1/87 - 7/1/87.

Table Q.5. Estimated holding period of transferred land sold

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	0	0	0	0	0	65.6	109.3	142.1	317.0
4-6	0	0	0	10.8	32.8	55.4	43.7	54.2	196.9
7-9	0	0	0	11.1	0	21.7	22.0	87.3	142.1
10-12	0	0	0	0	0	11.1	11.1	109.6	131.8
13-18	0	0	0	0	0	0	44.2	76.8	121.0
19-24	0	0	0	0	11.1	0	10.8	76.8	98.7
25+	0	0	0	0	0	11.1	22.0	87.9	121.0

[a] 1/1/87 - 7/1/87.

APPENDIX R. SOUTHERN PASTURE REGION ESTIMATIONS

Table R.1A. Estimated financially stressed agricultural land transfers by lender (grantee) including the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	1459.29	45681.42	42445.57	42360.52	31963.89	12133.11	176043.80
Farmers Home Administration (FmHA)	0	0	0	2041.79	5035.13	3498.40	9440.29	0	19988.60
Federal Land Bank (FLB)	0	0	0	0	0	5055.75	5853.89	23660.90	34570.54
Individuals (real estate contracts)	1556.57	5129.20	8096.67	5980.45	28422.91	77419.98	52917.34	19125.23	198648.30
Insurance companies	0	0	0	874.36	0	10409.49	23495.20	15844.43	50623.48
Production Credit Association (PCA)	0	0	13741.50	31103.75	483.33	6098.72	3682.27	4610.14	59719.79
Other	0	0	378.15	0	0	1167.43	0	0	1545.58
Total number of acres	1556.57	5129.20	23675.69	85654.77	76386.94	146010.20	127352.80	75373.80	541140.10
Estimated value (millions of dollars)	$1.712	$6.260	$26.522	$80.649	$58.143	$79.433	$58.176	$36.188	$347.083

[a]1/1/87 - 7/1/87.

Table R.2A. Estimated financially stressed agricultural land transfers by type of transaction (acres) including the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	389.14	22125.42	201.28	22117.84	29290.33	36097.69	110221.7
Notice of forfeitures	1556.57	5129.3	8096.67	5980.45	26910.31	76954.56	50621.29	12069.57	187318.7
Voluntary transfers	0	0	15189.87	57548.89	49275.35	46937.89	47441.16	27206.54	243599.7
Total number of acres	1556.57	5129.2	23675.69	85654.77	76386.95	146010.2	127352.8	75373.8	541140.1
Total number of transactions	9.73	70.01	139.82	308.82	471.91	709.02	704.82	219.75	2633.87

[a]1/1/87 - 7/1/87.

Table R.3A. Estimated financially stressed transferred land sold including the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	291.86	2156.44	11076.00	6914.55	28504.11	28799.97	77742.93
Farmers Home Administration (FmHA)	0	0	0	1625.65	0	778.29	0	0	2403.93
Federal Land Bank (FLB)	0	0	0	0	0	0	930.83	0	930.88
Individuals (real estate contracts)	1556.57	908.65	5017.42	2087.92	2237.58	8281.73	5433.17	12419.07	37942.11
Insurance companies	0	0	0	0	0	9.73	2850.38	11675.05	14535.16
Production Credit Association (PCA)	0	0	0	16987.72	6981.44	6182.26	9044.13	3635.38	42830.92
Others	0	0	378.15	0	0	0	0	4582.17	4960.31
Total number of acres	1566.57	908.65	5687.42	22857.73	20295.02	22166.56	46762.61	61111.63	181346.20
Estimated value (millions of dollars)	$1.712	$1.092	$6.117	$22.107	$15.425	$12.087	$21.151	$30.213	$109.905
Total number of transactions	9.73	9.73	52.46	165.0	215.66	279.83	330.19	355.37	1417.86

[a] 1/1/87 - 7/1/87.

Table R.4A. Estimated lender agricultural land inventory including the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	1167.43	43524.99	31369.57	35445.97	3459.78	-16666.80	98300.88
Farmers Home Administration (FmHA)	0	0	0	389.14	5035.13	2720.11	9440.29	0	17584.67
Federal Land Bank (FLB)	0	0	0	0	0	5055.75	4923.06	23660.90	33639.71
Individuals (real estate contracts)	0	4220.55	3079.25	3892.53	26185.33	69138.24	47484.08	6706.16	160706.20
Insurance companies	0	0	0	874.36	0	10399.77	20644.82	4169.38	36088.32
Production Credit Association (PCA)	0	0	13741.58	14116.02	-6498.11	-83.54	-5361.86	974.76	16888.86
Others	0	0	0	0	0	1167.43	0	-4582.17	-3414.74
Total number of acres	0	4220.55	17988.27	62797.04	56091.93	123843.7	80590.26	14262.17	359793.9
Inventory value (millions of dollars)									$175.383

[a] 1/1/87 - 7/1/87.

Table R.5A. Estimated holding period of transferred land sold including the transactions of the Exchange Bank Receivership

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	9.73	9.73	54.36	42.73	52.46	103.01	75.73	97.09	444.83
4-6	0	0	0	31.09	19.46	19.46	11.64	99.00	180.64
7-9	0	0	0	33.00	56.27	19.46	33.00	54.36	196.09
10-12	0	0	0	23.27	11.64	11.64	42.73	11.64	100.90
13-18	0	0	0	34.91	50.55	70.01	68.10	21.36	244.93
19-24	0	0	0	56.27	11.64	33.00	42.73	33.00	176.63
25+	0	0	0	0	44.63	64.09	85.46	178.73	372.92

[a] 1/1/87 - 7/1/87.

Table R.1B. Estimated financially stressed agricultural land transfers by lender (grantee) excluding the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	1459.29	43300.35	32933.64	16978.72	30723.98	2527.58	127923.50
Farmers Home Administration (FmHA)	0	0	0	2014.79	5035.13	3498.40	9440.29	0	19988.60
Federal Land Bank (FLB)	0	0	0	0	0	5055.75	5853.89	23660.90	34570.54
Individuals (real estate contracts)	1556.57	5129.2	8096.67	5980.45	28422.91	77419.98	52917.34	19125.23	198648.30
Insurance companies	0	0	0	874.36	0	10409.49	23495.20	15844.43	50623.48
Production Credit Association (PCA)	0	0	13741.50	31103.75	483.33	6098.72	3682.27	4610.14	59719.79
Other	0	0	378.15	0	0	1167.43	0	0	1545.58
Total number of acres	1556.57	5129.2	23675.69	83273.70	66875.98	120628.50	126112.90	65768.28	493019.90
Estimated value (millions of dollars)	$1.712	$6.260	$26.522	$78.465	$51.067	$65.828	$57.630	$31.626	$319.111

[a]1/1/87 - 7/1/87.

Table R.2B. Estimated financially stressed agricultural land transfers by type of transaction (acres) excluding the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Foreclosures	0	0	389.14	22125.42	112.75	22117.84	29290.33	36097.69	1100133.0
Notice of forfeitures	1556.57	5129.3	8096.67	5980.45	26910.31	76954.56	50621.29	12069.57	187318.7
Voluntary transfers	0	0	15189.87	55167.82	39852.92	21556.1	46201.25	17601.02	195568.9
Total number of acres	1556.57	5129.3	23675.69	83273.7	66875.98	120628.5	126112.9	65768.28	493020.8
Total number of transactions	9.73	70.01	139.82	289.37	442.73	689.56	685.36	210.02	2536.59

[a]1/1/87 - 7/1/87.

Table R.3B. Estimated financially stressed transferred land sold excluding the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	291.86	2156.44	8610.29	5788.95	16734.17	23466.56	57048.27
Farmers Home Administration (FmHA)	0	0	0	1625.65	0	778.29	0	0	2403.93
Federal Land Bank (FLB)	0	0	0	0	0	0	930.83	0	930.88
Individuals (real estate contracts)	1556.57	908.65	5017.42	2087.92	2237.58	8281.73	5433.17	12419.07	37942.11
Insurance companies	0	0	0	0	0	9.73	2850.38	11675.05	14535.16
Production Credit Association (PCA)	0	0	0	16987.72	6981.44	6182.26	9044.13	3635.38	42830.92
Others	0	0	378.15	0	0	0	0	4582.17	4960.31
Total number of acres	1556.57	908.65	5687.42	22857.73	17829.31	21040.96	34992.67	55778.23	160651.50
Estimated value (millions of dollars)	$1.712	$1.092	$6.117	$22.107	$13.586	$11.484	$15.972	$27.680	$99.750
Total number of transactions	9.73	9.73	52.46	165.0	176.63	240.92	281.54	316.45	1252.46

[a] 1/1/87 - 7/1/87.

Table R.4B. Estimated lander agricultural land inventory excluding the transactions of the Exchange Bank Receivership (acres)

	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
Commercial banks	0	0	1167.43	41143.91	24350.39	11189.77	13989.81	-20938.6	70902.34
Farmers Home Administration (FmHA)	0	0	0	389.14	5035.13	2720.11	9440.29	0	17584.67
Federal Land Bank (FLB)	0	0	0	0	0	5055.75	4923.06	23660.9	33639.71
Individuals (real estate contracts)	0	4220.55	3079.25	3892.53	26185.33	69138.24	47484.08	6706.16	160706.20
Insurance companies	0	0	0	874.36	0	10399.77	20644.82	4169.38	36088.32
Production Credit Association (PCA)	0	0	13741.58	14116.02	-6498.11	-83.54	-5361.86	974.76	16888.86
Others	0	0	0	0	0	1167.43	0	-4582.17	-3414.73
Total number of acres	0	4220.55	17988.27	60415.97	49072.75	99587.54	91120.29	9990.05	332395.40
Inventory value (millions of dollars)									$162.369

[a] 1/1/87 - 7/1/87.

Table R.5B. Estimated holding period of transferred land sold excluding the transactions of the Exchange Bank Receivership

# of months	Frequency of holding period per category								
	1980	1981	1982	1983	1984	1985	1986	1987[a]	Total
0-3	9.73	9.73	54.36	42.73	33.00	103.01	75.73	97.09	425.37
4-6	0	0	0	31.09	0	0	11.64	99.00	141.73
7-9	0	0	0	33.00	56.27	19.46	33.00	44.63	186.36
10-12	0	0	0	23.27	11.64	11.64	33.00	11.64	91.19
13-18	0	0	0	34.91	50.55	50.55	19.46	11.64	167.11
19-24	0	0	0	56.27	11.64	33.00	42.73	33.00	176.63
25+	0	0	0	0	44.63	64.09	66.00	149.55	324.27

[a]1/1/87 - 7/1/87.

APPENDIX S. REGIONAL CORN SUITABILITY RATING COMPARISON

Regional corn suitability rating comparison using Scheffe's multiple comparison method (at the five percent level of significance):

$$(\bar{y}_i - \bar{y}_j) \pm \hat{\sigma}\sqrt{(m-1)\, F_{.05}\, \left(1/n_i + 1/n_j\right)}$$

where

$\bar{y}_i$, $\bar{y}_j$ = mean of ith and jth group,

m = number of groups compared,

n_i, n_j = number of observations in groups i and j, and

F = based on $df_1 = (m-1)$ and $df_2 = (N-m)$.

Table S.1. Comparison of regional corn suitability ratings[a]

Region compared	CSR difference	Confidence interval
NE/EL	-6.34	(-14.00, 1.318)
NE/CG[b]	-11.09	(-18.65, -3.53)
NE/WL	2.90	(-4.57, 10.37)
NE/SP[b]	12.97	(5.41, 20.53)
EL/CG	-4.78	(-12.34, 2.78)
EL/WL[b]	9.21	(1.74, 16.68)
EL/SP[b]	19.28	(11.72, 26.84)
CG/WL[b]	13.99	(6.62, 21.36)
CG/SP[b]	24.36	(17.09, 31.63)
WL/SP[b]	10.07	(2.70, 17.44)

[a]NE = Northeast Dairy, EL = Eastern Livestock, CG = Cash Grain, WL = Western Livestock, and SP = Southern Pasture.

[b]Indicates a statistically significant difference.