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Farmland ownership and tenure in Iowa, 1982-1997: a fifteen year perspective

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Farmland ownership and tenure in Iowa, 1982-1997: A fifteen year perspective

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CHAPTER I

INTRODUCTION

From the earliest days of the Republic, the importance of land ownership has been debated. The Founding Fathers felt ownership of property of sufficient consequence to make it a necessary condition to vote.[1] Land ownership was viewed by private landowners as an exclusive right, often under the assumption that all rights were held completely by the landowner. As contemporary societies have become increasingly inter-connected across geographical space, the idea of a landowner holding most, if not all, rights has increasingly given way to allow for others to assert ownership to some of the sticks in the bundle of property rights.[2] These conflicts have made land ownership and tenancy of great interest to policymakers. Because of these conflicts in philosophy and perspective, surveys regarding land ownership and tenure in Iowa have been conducted several times over the past half-century.

The 1997 Land Ownership Study carries on the tradition of surveys carried out in 1949, 1958, 1970, 1976, 1982, and 1992.[3] The 1958 Iowa survey began looking at regions within Iowa as identified by the 1950 U.S. Census of Agriculture. This same

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[1] Rushdooney, R., *This Independent Republic,* New Jersey: The Craig Press, 1964, pp. 55-58.

[2] Wallace, H., Acquisition Programs for Partial Interests in Land, USDA Agricultural Economic Research Bulletin 744, 1995.

[3] Timmons, J. and R. Barlowe, Farm Ownership in the Midwest, *Iowa Agricultural Experiment Station Bulletin 361.* 1949; R. Strohbehn, *Ownership Structure of Iowa Farm Land.* Unpublished M.S. Thesis. Ames, Parks Library, Iowa State University of Science and Technology, 1959; M. Berk, *Changing Structure of Iowa Farm Land Ownership.* Ph.D. Dissertation, Iowa State University, 1971; B. D'Silva, *Factors Affecting Farmland Ownership in Iowa.* Ph.D. Dissertation, Iowa State University, 1978; T. Jackson, *Iowa Farmland Ownership and Tenure,* M.S. Thesis, Iowa State University, 1989; A. Schultz, and N. Harl, *Iowa Farmland Ownership and Tenure, 1982-92: Analysis and Comparison,* Iowa State University, 1994.

regional approach[4] has been continued, allowing for the observation of regional developments. These regular studies concerning land ownership are unique to Iowa.

Each of the earlier surveys was conducted to accomplish several objectives. In addition to continuation of many of the objectives guiding earlier surveys, the 1992 and 1997 studies were carried out as a result of legislation passed by the Seventy-Third Iowa General Assembly. The Legislature passed Chapter 319, Section 71 of the Acts of the General Assembly in 1989 which was amended in 1992, Chapter 1080, Section 1 to read:

> Iowa state university of science and technology shall conduct continuing agricultural research to provide information about environmental and social impacts of agricultural research on the small or family farm and information about population trends and impact of the trends on Iowa agriculture, in addition to research that may include the categories specified in section 266.39B, subsection 2. The research shall include an agricultural land tenure study conducted every five years to determine the ownership of farmland, and to analyze ownership trends, using the categories of land ownership defined in chapter 9H. The study shall be conducted on the basis of regions established by the university. A region shall be composed of not more than twenty-three contiguous counties.[5]

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[4] See Figure 2.1 for Iowa regions used in 1958, 1970, 1978, 1982, 1992, and 1997 land surveys.

[5] The provision was codified in the *Iowa Code* § 266.39A (1997).

Farmland Ownership and Tenure Background

Circumstances surrounding this study are of particular importance. The 1997 study was conducted during a time of relative prosperity in production agriculture and followed important federal statutory changes in the form of specific acts relating to farmland. The unprecedented so-called "Freedom to Farm"[6] Act, the Federal Agricultural Improvement and Reform Act of 1996 (FAIR Act),[7] had been passed the year before this study was conducted, allowing farmers to uncouple production from past production, acreage, and price constraints.

The FAIR Act of 1996 established fixed payments by allocating a set amount of funds set aside by the Congress among farmers on 85 percent of current base acres.[8] Also, it maintained the Conservation Reserve Program and Wetlands Reserve Program and added additional conservation programs.[9]

Land values in Iowa at the time of this study were continuing year-over-year increases following the 1980's farm debt crisis.[10] Average farm prices received by Iowa farmers for 1997 were $2.46 and $7.28 per bushel for corn and soybeans, respectively.[11] Greater trade liberalization followed completion of the Uruguay round of GATT and

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[6] Doering, O., *Agricultural Policy Outlook,* "Has Freedom to Farm Failed?" September 1998, p 6.

[7] Federal Agricultural Improvement and Reform Act of 1996, Pub. L. No. 104-127, 110 Stat. 888 (1996).

[8] *Id.*

[9] *Id .,* Title III.

[10] Duffy, M., J. Lillywhite, and N. Mastrogiannopoulos. *Summary Data of the Iowa Land Value Survey,* 1950-1998. Ames: Iowa State University, December, 1998.

[11] *Iowa Agricultural Statistics*, Iowa Department of Agriculture and Land Stewardship, Agricultural Marketing Division, Mid-month prices, Des Moines, 1998.

implementation of NAFTA. These actions helped create a strong agricultural export program and contributed to general overall optimism throughout the agricultural economy.

A clear showing of environmental concern was apparent in the retention in the FAIR Act of the Conservation Reserve Program (CRP) created in the 1985 farm bill, the Wetlands Reserve Program (WRP) created in the 1990 farm bill, and other programs formed in conjunction with the FAIR Act's passage, especially the Environmental Quality Incentive Program (EQIP).[12] The continued existence of CRP, WRP, and the creation of EQIP demonstrate the concern for environmental stewardship. The retention of the CRP, WRP, and the addition of new conservation programs during a time of intense debate to balance the federal budget constituted strong evidence of support for conservation-related programs.

Relatively favorable 1997 crop prices and yields increased earnings from the land. Relatively low interest rates were another factor in driving up land prices in 1997. Additionally, federal farm subsidies have assisted in stabilizing commodity prices, which indirectly affect returns to farmland. Each of these circumstances contributed to positive, double-digit returns to farmland ownership, from 1991 to 1996.[13] Figure 1.1 illustrates the percentage return to farmland ownership in Iowa from 1970 to 1996.

Improved earnings and low interest rates coupled with downside concern in the stock market contributed to the belief that land was a good investment. Iowa's

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[12] FAIR Act of 1996, Title III.

[13] Edwards, W., *Returns to Iowa Farmland Ownership* (percentage return per acre based on USDA Annual Survey of Agricultural Land Values and Cash Rents), Iowa State University Extension, May 1997.

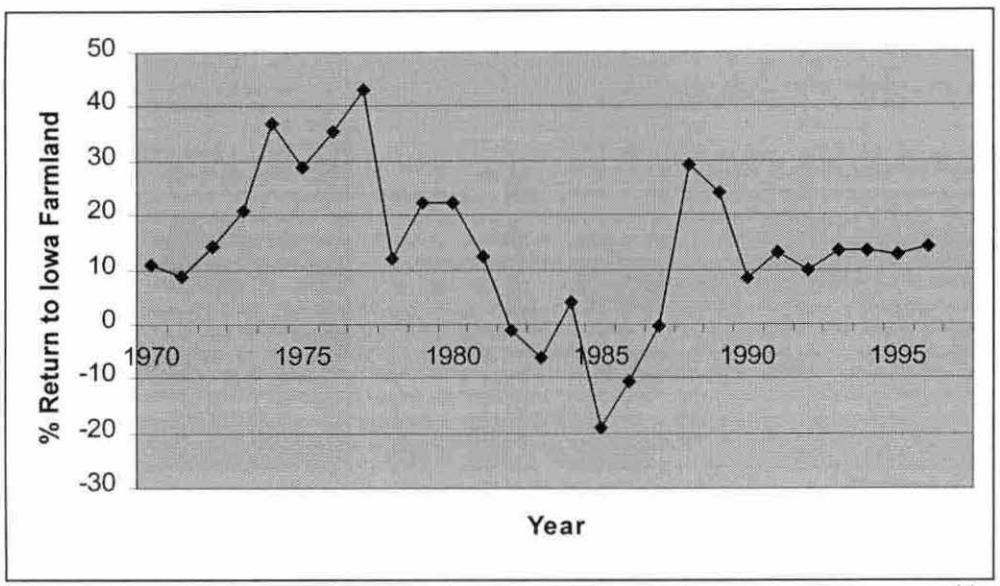

Figure 1.1 Percentage return to farmland ownership in Iowa, 1970-1996.[14]

average value per acre of farmland in 1997 stood at $1837. That figure was 47.1 percent higher than the average per acre land value in 1992 of $1249 and 133.4 percent above the low of $787 per acre in 1986.[15] Land values increased steadily from 1987 to 1997. Figure 2.1 represents the average value per acre of Iowa farmland from 1970 to 1998.

In two other areas affecting property, important changes occurred. The Iowa General Assembly enacted legislation authorizing limited liability companies (LLCs) in 1992.[16] This development created opportunities for liability protection, without the rigidity of the corporate structure. Since 1993, 5299 LLCs have been formed in Iowa.[17]

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[14] *Id.*

[15] Duffy, M., *Summary Data of the Iowa Land Value Survey, 1950-1998*, Iowa State University Extension, December 1998.

[16] 1992 Acts of the General Assembly, ch. 1151, § 8. The provision was codified in the Iowa Code ch. 490A (1997).

[17] Iowa Secretary of State, Summer 1997 list of registered limited liability companies.

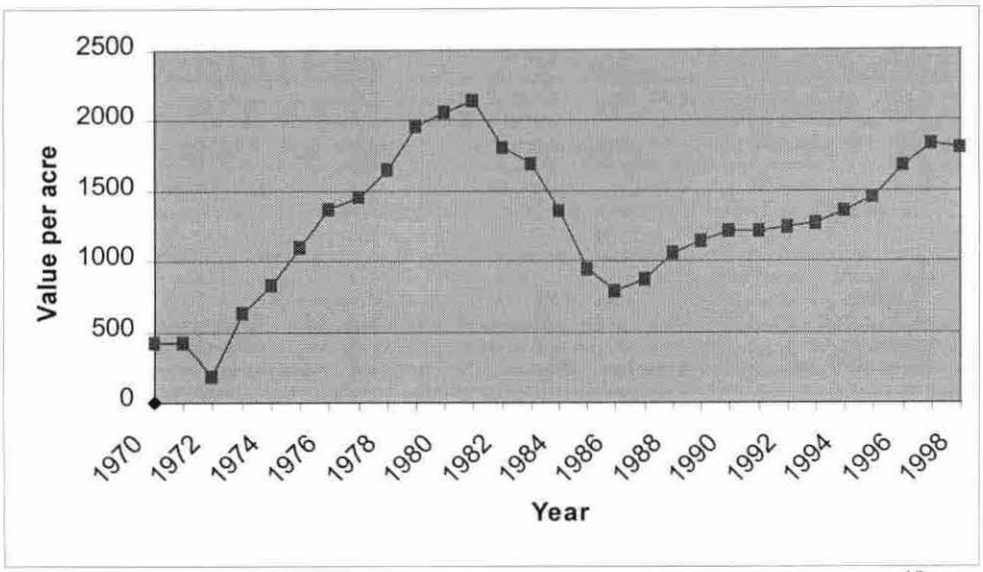

Figure 1.2 Average Value Per Acre of Iowa Farmland, 1970-1998.[18]

Not known is how many limited liability companies were formed for the purpose of farm operation or farmland ownership, because no such designation existed in the file from the Secretary of State. A second change, affecting real property directly, came in the Taxpayer Relief Act of 1997.[19] The Act reduced the maximum tax for individuals above the fifteen percent tax bracket from 28 percent to 20 percent on net long-term capital gains. For those in the fifteen percent tax bracket, the rate for long-term capital gains was reduced to ten percent.[20] These governmental actions, on organizational structure and taxation, can affect a landowner's personal and tax liability structure and decisions regarding the transfer of land.

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[18] Duffy, M., *Summary of the Iowa Land Value Survey, 1950-1998,* Iowa State University Extension, Ames, December 1998.

[19] *Taxpayer Relief Act of 1997,* Pub. L. No. 105-34 (1997).

[20] *Id.* See I.R.C. § 1(h) (as amended 1998).

Tenancy is the second most common tenure form, following ownership.[21] Possession and use rights of the land held by non-owner operators are a matter of interest in the United States.[22] In the United States, more than half of the landowners are over 65 years of age and are women according to a 1988 U.S.D.A. study. Participation of landowners in the decision making process concerning the care and use of the land varies from one region to another in the U.S., but all regions in the U.S. fall between 18-23 percent of landowners participating in some way in decisions concerning their land.[23] Most landowners have opted for a cash rent type lease with minimal involvement in cropping decisions.[24]

Dimensions of the Study: Ownership and Tenure

Continuing along the same lines as the 1992 study, the analysis of land tenure in the current study examined both ownership and tenancy. The results of the 1982 and 1992 studies are compared to the analysis in the 1997 land ownership study.

With the repeal of Chapter 9H.3A by the Iowa General Assembly in 1993,[25] which had prevented limited liability company ownership of agricultural land, limited liability companies may now own farmland. This study has broadened the view of

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[21] Harris, M., *Origins of the Land Tenure System,* Ames: Iowa State College Press, 1953, p. 10.

[22] Rogers, D., "Leasing Farmland in the United States" Economic Research Service, U.S.D.A. (using 1988 data), 1991.

[23] *Id.*, p.7.

[24] *Id.*, p.12.

[25] *Iowa Code* ch. 9H.3A, repealed by 1993 Acts of the General Assembly ch. 39, § 37 (1997).

ownership and included limited liability companies, (LLCs) and limited liability partnerships, (LLPs) as separate entities. Ten types of ownership are reviewed: 1) sole owner, 2) joint owners (husband and wife only), 3) other co-ownership, 4) partnership, 5) life estate, 6) unsettled estate, 7) trust, 8) corporation, 9) limited liability company, and 10) limited liability partnership. Each ownership structure is evaluated according to dimensions of tenure and the demographics of age, education, occupation, and participation in the decisions with respect to the land owned. Because LLP ownership was estimated in the study at one-half of one percent, the LLP ownership is included in the partnership category throughout the analysis. Partnership ownership is different in legal structure from LLP ownership. However, because LLP ownership in the sample was so small, estimation for LLP characteristics was not meaningful when analyzed. Also, joint ownership under circumstances other than husband and wife was included in the "other co-ownership" category.

The concept of "land tenure" refers to the manner in which or the period for which rights in land are held.[26] Additionally, land tenure consists of the social relations and institutions governing access to and ownership of land.[27] Tenure describes the rights the landowner maintains or the rights given to the tenant. With the increased environmental emphasis, several modifications in tenure arrangements have developed including acquisition of easements by private and governmental organizations to obtain partial interests in land. Also, professional farm managers have been entrusted in recent

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[26] Harris, supra note 21, p. 1.

[27] Maxwell, D. and K. Wiebe, "Land Tenure and Food Security: A Review of Concepts, Evidence, and Methods," Land Tenure Center, University of Wisconsin-Madison, January 1998, p. 4.

decades with property management and some of the same rights as the landowner by acting as the owner's agent. For all of these reasons, and because a substantial part of farmland is leased, tenancy aspects of land ownership are analyzed in detail in Chapter V.

Purpose of the Study

The study focuses on forms of ownership and tenancy in 1997 and compares trends from the 1982 and 1992 studies. It analyzes and compares farmland ownership and tenancy in the following specific ways:

-agricultural landholdings by type of ownership;

-demographics of owners;

-how land is acquired, held, transferred, and managed;

-tenancy of land and identifiable trends in the tenancy relationship;

-demographics of tenants; and

-the impact of conservation programs and other practices which sometimes assign limited interests in land to governmental or private organizations with an objective of influencing land use patterns.

CHAPTER II

SURVEY METHODS

In terms of methodology used in conducting the 1997 survey, the survey focused on two sample groups: the general sample and the limited liability company sample. Different sampling techniques were used in randomly selecting the respondents to be interviewed in each group. The interview procedure, however, was identical for each respondent, regardless of the sample group. Also included in this chapter is a discussion of the statistical analysis used in the 1997 survey.

The 1997 Survey

The 1997 survey was conducted by telephone, in the same manner as the 1992 study[28] and was carried out by the Iowa State University Statistical Laboratory. Telephone interviews for the 1997 survey were conducted between November, 1997 and February, 1998. All questions were asked in reference to land owned on July 1, 1997. Survey questionnaires[29] were completed by trained telephone interviewers who edited and checked the responses for inconsistencies. The data were then coded and placed in a computer file.

Table 2.1 compares the 1958, 1970, 1976, 1982, 1992, and 1997 Iowa farmland ownership surveys in terms of their methods of survey, the number of landowners in the sample, useable responses, and the percent of usable responses.[30] The 1949 survey

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[28] Schultz, A., and Harl, N., *Iowa Farmland Ownership and Tenure, 1982-1992: Analysis and Comparison,* p. 17, 1994.

[29] For a copy of the survey questionnaire, see Appendix B.

[30] The usable response rate is the number of completed interviews divided by the number of eligible respondents.

Table 2.1 Comparisons of usable response rates obtained in land ownership surveys.

Year	Method of Survey	Landowners in sample (numbers)	Useable responses (number)	Useable responses (percent)
1958	Mail	11,022	2,576	23.40
1970	Mail	12,520	3,216	25.68
1976	Mail	4,392	1,503	34.22
	Telephone	1,044	743	71.16
1982	Telephone	1,065	992	93.14
1992	Telephone	1,053	940	89.27
1997	Telephone	861	656	76.19

Source: Schultz, A. and N. Harl, *Iowa Farmland Ownership and Tenure, 1982-1992: Analysis and Comparison,* 1994. (excluding the 1997 data)

results were conducted for the entire Midwest; therefore, the 1949 study was not comparable to the surveys in Table 2.1 that were conducted for Iowa alone.[31]

Survey respondents were selected from two different pools: 1) a general sample of land owners, and 2) a sample taken from a list of limited liability companies maintained by the Iowa Secretary of State. Of 1042 selected landowners, 862 were considered eligible to respond to the survey, but only 656 interviews were completed for the 1997 land ownership survey as shown in Table 2.1. LLP information from the sample was insufficient to analyze.[32]

[31] Schultz and Harl, supra note 28.

[32] See list sample discussion in Appendix A.

General Sample Selection

All agricultural land owned in Iowa had the opportunity to be included in the general sample. In 1988, parcels of land in each county were scientifically chosen on a random basis. These parcels were used in the 1992 and 1997 surveys. The sample unit or parcel was a quarter of a quarter section of land: a 40-acre tract. The same seven hundred and five sample units surveyed in 1992 were used in the 1997 survey. The persons owning land within this sample unit were identified and became the respondents for the survey.

The state was divided into seven regions ranging in size from seven to 23 counties. In regions, the sample was allocated to counties in approximate proportion to their geographic areas (excluding non-farmland areas). The largest county, Kossuth, had 18 sample units while the 15 smallest counties had five samples each. The determined number of sample units was selected in two stages. The first stage assured a geographic dispersal of sample sections over the county in a systematic manner. The second stage selected a single 40-acre unit at random within each sample section within each county.

Legal descriptions of selected 40-acre parcels from this sampling procedure were sent to county auditors who were asked to provide information about the owners of land within the sample 40-acre units. The owners identified by the county auditors were then surveyed as respondents if they met the following criteria:

1. They owned land within the selected 40-acre parcel that was zoned agricultural.

2. The land was owned by a private citizen and used for agricultural purposes, or the respondent was the designated trustee of a trust holding farmland.

Some 40-acre sample units had multiple owners. Where there was more than one owner of a portion of the 40-acre unit, there are two possibilities:

1. If there was multiple ownership of any portion of a 40-acre sample unit, the person identified by the county auditor was asked to fairly represent the other owners. If unable to represent the other owners, the name of another owner was requested. This person was then used as the respondent and asked to provide information on the farmland and other owner demographics.
2. If the ownership type included a second joint owner, the joint-owner's demographics, as provided by the respondent, were included in the survey.

For the general sample, 705 forty-acre tracts were chosen. Of the 705 tracts, 932 different owners were identified, of which 116 were owners of non-agricultural land not used for farming, 15 were not eligible under the stated criteria, and five were moved to the LLC sample. Out of the remaining 796 owners, 83 respondents refused to participate, 85 respondents were not located, and 20 respondents were not reached even though locations were known. Interviews of 608 persons were completed in the general sample, or 76.5 percent of eligible owners.

LLC Sample Selection

The 1975 corporate farming laws restricted farmland ownership to family farm corporations and authorized corporations. Perhaps in part because of these limitations, the data from recent farm surveys showed the percentage of farmland in corporations to be declining. This fact, plus the legislative move to allow limited liability companies (which have increased substantially in number since 1993) led to the decision not to include a separate corporate ownership sample in the 1997 study, although corporations are studied in the general sample. The repeal of the prohibition on formation of limited liability companies in 1993, and interest in their formation and land ownership characteristics, created a desire to pursue the extent of use of this new ownership structure. An overview is presented in Chapter VII.

Lists of limited liability companies were obtained from the Secretary of State. Of the 5299 obtained from the limited liability company list, 110 were selected to be respondents in the 1997 study. From the 110 selected, on the basis of "farm" in the name, 49 interviews were completed (5 where transferred from the general sample and not included in it). Of the remaining potential respondents, 49 were not eligible, 4 refused to interview, and 13 were unavailable or were not located. A larger number of LLC respondents would be preferable in order to reduce the confidence interval and improve the statistical significance of the LLC sample results. Respondents questioned from the LLC sample were interviewed with the same questionnaire as the general sample.

Geographical Regions Used in 1997

Iowa was divided into seven geographical regions in the 1958 survey, using regions identified in the 1950 U.S. Census of Agriculture. The composition of these regions was continued in the 1997 survey. Figure 2.1 shows the regions used throughout the survey and are described as:

1. Northwest Region-10 counties including Lyon, Sioux, O'Brien, Plymouth, Cherokee, Buena Vista, Woodbury, Ida, Sac, and Carroll
2. Southwest Region-11 counties including Monona, Crawford, Harrison, Shelby, Audubon, Pottawattamie, Cass, Mills, Montgomery, Fremont, and Page
3. Northern Region-seven counties including Osceola, Dickinson, Emmet, Kossuth, Clay, Palo Alto, and Hancock
4. Northcentral Region-13 counties including Pocahontas, Humboldt, Wright, Franklin, Calhoun, Webster, Hamilton, Hardin, Greene, Boone, Story, Dallas, and Polk
5. Southern Region-19 counties including Guthrie, Adair, Madison, Warren, Marion, Adams, Union, Clarke, Lucas, Monroe, Wapello, Jefferson, Taylor, Ringgold, Decatur, Wayne, Appanoose, Davis, and Van Buren
6. Northeast Region-16 counties including Winnebago, Worth, Mitchell, Howard, Winneshiek, Allamakee, Cerro Gordo, Floy, Chickasaw, Fayette, Clayton, Butler, Bremer, Black Hawk, Buchanan, and Delaware.
7. Eastern Region-23 counties including Grundy, Dubuque, Marshall, Tama, Benton, Linn, Jones, Jackson, Clinton, Cedar, Jasper, Poweshiek, Iowa, Johnson, Scott, Muscatine, Mahaska, Keokuk,Washington Louisa, Henry, Des Moines, and Lee.

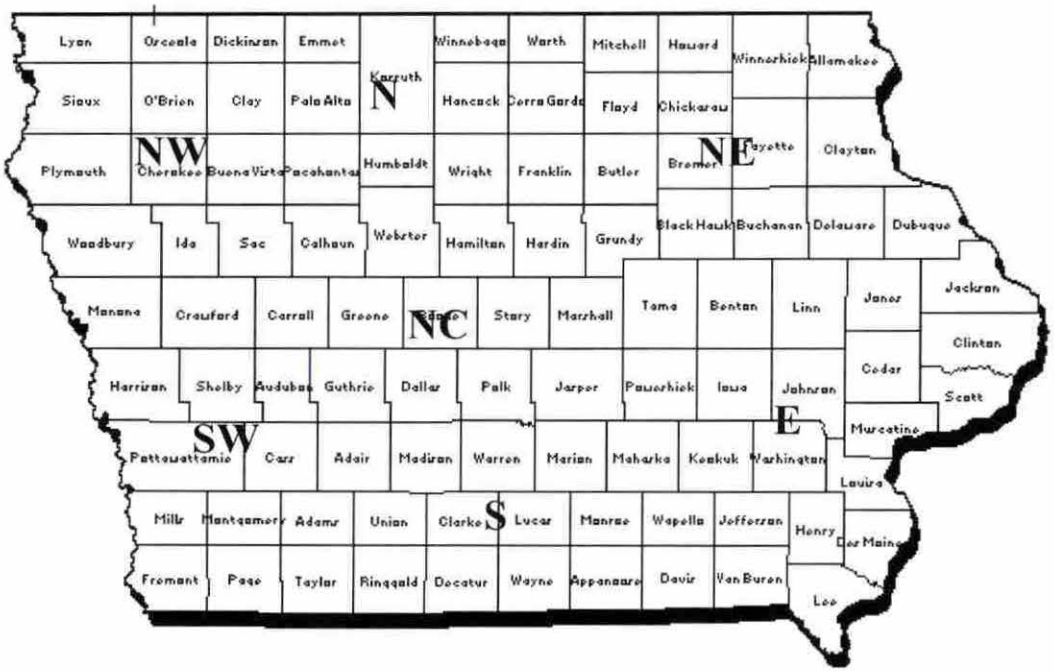

Figure 2.1 Iowa regions used in 1958, 1970, 1976, 1982, 1992, and 1997 surveys.[33]

Statistical Analysis

For this survey, land ownership was measured in acres that were held in only one ownership type. All of the acres identified by the respondent were added to the ownership type given and included acreage other than that owned in the 40-acre sample unit. The types of ownership are sole owner, joint owners (husband and wife only), other co-ownership, partnership, life estate, unsettled estate, trust, corporation, limited liability company, and limited liability partnership. The amount of acres owned in a different ownership type or agricultural land leased from others was not considered in this study. For sole owner respondents, the study only considered the amount of acres

[33] Schultz and Harl, supra note 28, p. 19.

owned solely by the respondent. Respondents were reminded throughout the survey that the land being discussed was only that land owned in a particular ownership category. The term "farm" was replaced with 'farmland owned in this type of ownership.'

Congruent with this separation of farm and ownership type, the statistical method used was based on the percentage of farmland owned. This maintains continuity with the 1992 survey. Under this method, a clearer picture of farmland ownership is possible. Specific examples of percentage of farmland owned include: the percentage of land owned by sole owners, the percentage of land under a cash rent lease arrangement, and the percentage of land enrolled in conservation programs.

Because the general and LLC samples were selected by different methods, two different weighting schemes were used to analyze the sample groups. Weightings were assigned so that responses analyzed in the 1997 study would be as comparable as possible to the 1982 and 1992 studies.[34]

The 1997 study was conducted in a manner similar to the 1982 and 1992 studies. Telephone survey methods were utilized to contact the identified respondents. Many questions were worded and asked in exactly the same way as in the previous studies to maintain comparability and avoid undue bias.

In the analysis of the data, some respondents chose not to answer some questions or responded that they did not know the answer. Therefore, the responses, when estimated for the percentage of farmland owned, do not always total 100 percent. All analysis was completed using the percentage of farmland.

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[34] Appendix A details the statistical methods used to analyze the 1997 data including the initial, final, and owner weightings used.

In order to compare the dispersion of an entire set of data with the dispersion of another set of data, a relative measure of dispersion is required. This relative measure, referred to as the coefficient of variation, is essential when the sets of data to be compared are expressed in different units or when the data are in the same units but are of different orders of magnitude. Coefficient of variation calculations are computed by dividing the standard deviation by the mean of the data set. A higher coefficient of variation shows more variation and uncertainty in the estimate because the relative dispersion is greater. If the estimate was 0.0 percent, the coefficient of variation could not be calculated and was left blank. Coefficients of variation are calculated and found in Appendix D.

Hypothesis testing is another statistical tool used to determine if change is significantly different from zero and at what levels. Changes from 1982 and 1992 to 1997 were tested at the 5 percent level for significance and are noted in the tables by an asterisk (*). A hypothesis test that is significant at the 5 percent level indicates fairly strong evidence the true change is not zero, or states that an examiner of the test can be 95 percent confident the true change is other than zero.

CHAPTER III

LAND OWNERSHIP

The first data analyzed in this study reveal the ownership patterns from the 1997 Farmland Ownership Survey. The focus of farmland ownership is in the following areas:

1. Ownership type,
2. Tenancy,
3. The method of financing, if relevant,
4. The method of acquiring the land,
5. Length of ownership, and
6. The size of owned acreage.

This study focuses on the characteristics of the landowner analyzed in relation to the land owned. Many past studies have focused on the percentage of landowners, but this study continues the 1992 Iowa farmland study's use of the percentage of farmland owned. This approach allows a clearer focus on the changes occurring in the ownership structure of the land.

Ownership Type

Land is held in many different ownership arrangements. This study presents the arrangements as revealed in the survey under ten different ownership types. The categories are then combined or altered as needed to allow comparison with past studies. Ten different categories of ownership were surveyed. The types include:

1. Sole owner,
2. Joint owners (husband and wife only),
3. Other co-ownership,

4. Partnership,
5. Life estate,
6. Unsettled estate,
7. Trust,
8. Corporation,
9. Limited liability company, and
10. Limited liability partnership.

Joint ownership most commonly involves a husband and wife, although others can hold land in joint ownership. The 1997 study separated husband and wife joint ownership from other combinations of joint ownership. Joint ownership in this context implies joint tenancy. Joint ownership other than husband and wife is included in the "other co-ownership" category along with tenancy in common ownership, thereby maintaining continuity with past studies. Through the right of survivorship, ownership is passed to the surviving tenant at the death of the first to die. Tenancy in common differs from joint tenancy in that the right of survivorship does not apply. Upon the death of a tenant in common, the rights of ownership pass to the deceased tenant's heirs or are distributed under the deceased's will instead of passing necessarily to surviving tenants in common.

Another type of co-ownership is ownership in partnership and is included in the partnership category. A general partnership is defined as an organization of two or more persons to carry on as co-owners a business for profit. General partnerships involve unlimited liability for the partners individually for the liabilities of the partnership. A limited partnership provides limited liability to limited partners not participating in

management and control. The final category, limited liability partnership, provides an exemption of liability from co-partner's acts.

Trusts are an instrument that can hold the ownership of the land during life, or after the death, of the landowner. With the establishment of a trust, legal title to property is placed in the hands of a trustee with the property to be used for the benefit of specified beneficiaries.

Estates are, in many respects, similar to trusts. Unsettled estates identified in the survey are also included in the estate category.

Life estate holders generally have rights to the income of the property. Upon death, or the relinquishment of the life estate, the property passes to those holding the remainder or reversionary interest. Generally, life estates are freehold estates created by a landowner for an unspecified length of time, usually measured by a designated life.

This survey looked at corporations as a general group, although corporations are divided into various categories as defined in Chapter 9H of the *Code of Iowa.* The categories include family farm corporations, authorized farm corporations, nonprofit corporations, and other types of corporations. Table 3.1 presents the survey results for corporate owners of farmland. Based on this survey, it is estimated 5.3 percent of Iowa farmland is owned by corporations. Comparing this with the 1992 and 1982 surveys, the amount of farmland has decreased from 7.6 and 8 percent, respectively. This is a statistically significant decrease over the past 15 years at the 5 percent level.

Sole owners and husband and wife (joint) owners continue to own the majority of the farmland in the state at a combined 70.3 percent with sole owners at 31.2 percent and joint owners at 39.1 percent. This number is down from the 1992 survey which reported

75.4 percent for the combined groups when approximately 38 percent was owned by each of the ownership types. Other co-owners and tenants in common, held five and one-half percent of the farmland in 1997. Estimations for the remaining farmland owned by the other various categories are: trusts (7.4 percent), estates (2.7 percent), partnerships of all types (4 percent), and limited liability companies (4.7 percent). Table 3.1 compares the 1982, 1992, and 1997 survey results. Percentage changes from 1982 and 1992 to 1997 are shown.

Table 3.1 Comparison in percentage of farmland owned among land ownership types, 1982, 1992, and 1997

Ownership Type	**1982**	**1992**	**1997**	**% change '82 -'97**	**% change '92 - '97**
Sole owners	41.1	37.9	31.2	-24.0*	-17.6*
Husband and Wife (joint)	38.7	37.5	39.1	+1.0	+4.3
Other joint/co-owners	7.3	6.7	5.6	-23.3	-16.4
Partnerships	0.3	2.0	4.0	+1233.0*	+100.0*
Estates	3.8	3.3	2.7	28.9	-18.2
Trusts	0.8	4.9	7.4	+825.0*	+51.0*
Corporations	8.0	7.6	5.3	-33.7*	-30.2
Limited liability companies			4.7		

* Statistically significant change at the 5 percent level

Partnerships and trusts experienced increases in ownership share over the 1982-97 period. Trusts have become a relatively popular means for owning land with an estimated 7.4 percent of the farmland owned in trusts in 1997. Trust ownership of land has experienced a 51 percent increase in the past five years. Compared to 1982, an 825 percent increase has occurred, reflecting a statistically significant change at the 5 percent level over the last fifteen and five years. Anticipated transfer of farmland using trusts is discussed in Chapter VI. Growth in ownership by partnership has been even more

phenomenal with a 100 percent increase in the past five years and over a 1000 percent increase in the past fifteen years.

As mentioned earlier, the additional options of organizing limited liability companies and limited liability partnerships have affected the structure of farmland ownership. In 1992, general and limited partnerships owned two percent of Iowa farmland. The 1997 study shows all partnerships (including LLPs at one-half percent) and LLCs owning a combined 9.3 percent of all Iowa farmland. Since 1992, ownership has moved toward the LLC structure, which claims the advantages of limited liability of corporations,[35] but the income tax treatment of a partnership.[36] Similar advantages exist for limited liability partnerships.

Tenure

Tenure encompasses ownership and tenancy of farmland. Chapter V covers tenancy more thoroughly; therefore, only a general overview of owner-operator and leasing arrangements is discussed here as such arrangements relate to all Iowa farmland.

The data in table 3.2 indicate a continued shift toward non-owner operators as the percentage of leased land has increased since 1982. Owner-operators farming without hired help farm an estimated 30.8 percent of Iowa farmland. This decline from 54.1 percent in 1982 is significant at the 5 percent level as is the decline from 1992. The 1997 study shows 30.8 percent of the farmland being operated by owners without employees and 7.8 percent by owners with employees. The balance, 61.4 percent of the land, is farmed under landlord-tenant agreements.

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[35] *Iowa Code* ch. 490A.601 (1997).

[36] Harl, N., *Agricultural Law Manual* § 7.04[2][c][i] (1998).

Table 3.2 Tenure of Iowa farmland, 1982, 1992, and 1997, as a percentage of farmland for all owners.

Tenure	1982	1992	1997	% change '82-'97	% change '92-'97
Operate solely	54.1	42.3	30.8	-43.1*	-27.2*
Operate w/help	0.9	7.8	7.8	+766.0*	+0.0
Cash rent lease	21.1	26.9	34.9	+65.4*	+29.7*
Crop share lease	21.1	21.8	23.7	+12.6	+8.7
Other lease	1.0	0.9	2.8	+180.0*	+211.0*

*Statistically significant change at the 5 percent level

Another variation in the form of tenure involves management of farmland by professional farm managers. Professional farm managers supervise the renting of the land to the tenant, acting as an agent for the owner. The landowner is typically removed from the decision-making process, with the manager overseeing the tenant directly. Table 3.3 shows the percentage of land managed by farm managers across the state for all ownership types increased from 4.5 percent in 1992 to almost 5.1 percent in 1997. The change from 1982 to 1997 was 155 percent and is statistically significant at the 5 percent level. For corporation-owned land, farm manager use fell from 9.4 percent in 1992 to 8.6 percent for 1997.

Table 3.3 Percentage of farmland managed by a professional farm manager, 1982, 1992 and 1997.

Ownership Group	1982	1992	1997	% change '82-'97	% change '92-'97
All ownership types	2.0	4.5	5.1	+155.0*	+13.3
Non-corporate	1.7	4.1	4.9	+188.0*	+19.5
Corporate	5.5	9.4	8.6	+56.3*	+8.5

*Statistically significant change at the 5 percent level

Methods of Financing Iowa Farmland

Interest rates for purchasing farmland ranged from five to eight percent at the time of the 1997 study. Iowa farmland values have continued to rise since the farm debt crisis, In this environment, the 1997 study analyzes the financial structure of land ownership.

Farmland was classified in three groups in terms of financing arrangements existing on the land:

1. Free of debt,
2. Being purchased through a purchase contract or contract for deed, or
3. Being purchased with a loan secured by a mortgage on the land.

The data for each of these groups involve only debt against the land.

Purchase contracts are agreements between buyer and seller for the transfer of property. Most of these contracts are held between individuals.

The final option for farmland purchase is the traditional secured loan from a third party lender or mortgagee. Under mortgages, the mortgagor holds the title. For purchase contracts, the purchaser may or may not hold title. Table 3.4 shows percentage of land owned in each of these groups.

Table 3.4 Finance methods as a percentage of land owned by all owners, 1982, 1992, and 1997

Finance Method	**1982**	**1992**	**1997**	**% change '82-'97**	**% change '92-'97**
Free of debt	61.8	69.6	59.8	-3.2	-14.1*
Under contract	17.8	10.7	9.5	-46.6*	-11.2
Through mortgage	20.2	19.1	30.7	+51.9*	+60.7*

*Statistically significant change at the 5 percent level

In 1997 compared with 1992, more land was subject to indebtedness, less land was acquired under purchase contracts, and more farmland in Iowa was under mortgage. Debt-free land declined over 14 percent to 59.8 percentage points in the 1992 to 1997 period. This represents a statistically significant change at the 5 percent level. In 1982 before the farm debt crisis, 61.8 percent of farmland was debt-free. Land under contract dipped from 10.7 to 9.5 percent for a decline of 11.2 percent. Mortgage financing involved the greatest change, increasing by 60.7 percent to 30.7 percent of all farmland. Changes in both periods, 1982-1997 and 1992 to 1997, were significant at the 5 percent level.

Methods of Acquiring Iowa Farmland

Four different modes of acquisition were examined:

-land was purchased,

-land was received as a gift from a person living at the time of the transfer,

-the land was inherited, or

-the land was obtained in some other manner.

Purchased land involves either a purchase contract, a note and mortgage, or the land is purchased for cash. Gifts assume a living donor at the time of the gift. Inherited land could have been acquired through a trust, will, or other instrument that passes legal title to the land at death. Other methods of acquisition involve purchase at less than fair market value or acquisition in a like-kind exchange. Table 3.5 shows percentage estimates for these acquisition methods.

Almost 60 percent of farmland was debt free in 1997 and 37.8 percent of it was acquired without encumbrance by gift or inheritance. Almost 62 percent of all farmland

Table 3.5 Method of acquisition by percentage for all Iowa farmland, 1997

Acquisition Method	**1997**
Purchased	61.9
Received by gift	3.2
Inherited	34.6
Other	0.3

was acquired by purchase and 40.2 percent was still under a purchase contract or mortgage.

In acquiring land, owners acquired it from: 1) sole owners or estates of sole owners (73.5 percent), 2) co-owners (15 percent), 3) institutions (5.5 percent), 4) corporations (3 percent), and 5) trusts (3 percent). No specific question was posed concerning acquisition of farmland from joint tenants, but the 73.5 percent acquired from sole owners or estates of sole owners mirrors closely the percentage of land owned by sole owners and husband and wife (joint) owners. Land acquired from co-owners includes all types of partnerships (See question #27 in Appendix B).

Length of Ownership

Length of ownership is an important indicator of ownership turnover. The 1997 study documented the changes in land ownership. Table 3.6 shows the current pace of ownership turnover. Using July 1, 1997 as a cutoff date for the 1997 survey, an estimated 26.8 percent of the land has been acquired since 1992. From 1982 to 1997, 58.6 percent of Iowa farmland was acquired by the current owner. Since 1973, 76.9 percent of the land changed ownership. Of note is the change in the 18 months between January, 1996 to the July 1, 1997 cutoff date. During this period, 13.7 percent of Iowa

Table 3.6 Percentage of Iowa farmland surveyed in 1997 which was acquired during specified periods.

Period during which current owner acquired land	1997
Jan. 1996-July 1, 1997	13.7
1993-95	13.1
1983-92	31.8
1973-82	18.3
1972 and earlier	23.2

farmland changed ownership. The period, of 1983-92, encompassed the farm debt crisis years. This study shows 31.8 percent of farmland acquired by the current owner taking place during this period.

Size of Owned Acreage

The 1997 survey measured the size of agricultural land owned by ownership type. The owner may own more land or lease land under different ownership. However, the number of acres owned or leased under a different ownership type is not considered in this study. The acreage sizes here are only under the one ownership type identified by the respondent at the beginning of the survey.

The size of owned acreages varies widely in the study. But, traditionally, land was described and transferred in 40-acre tracts. Table 3.7 follows that pattern by dividing acreages in multiples of 40. Also, this allows comparison with earlier studies. Forty-acre units sampled in some instances had multiple owners. There are statistically significant changes at the 5 percent level from 1992 to 1997 at every acreage size. Changes in acres owned are one of the few items analyzed in the study where such significance was shown throughout all categories. Acreages under 240 acres have decreased since 1982 while acreages greater than 240 acres have increased. These numbers correspond with the acres

Table 3.7 Percentage of farmland owned in various sizes by all owners, 1982, 1992, and 1997.

Sizes(acres)	1982	1992	1997	% change '82-'97	% change '92-'97
80 and under	39.8	30.7	12.0	-69.8*	-60.9*
81-240	38.3	44.0	37.3	-2.6	-15.2*
241-600	16.5	19.1	36.6	+121.0*	+91.6*
>600	5.3	6.3	13.9	+162.0*	+120.0*

*Statistically significant change at the 5 percent level

per farm obtained from the 1992 Census of Agriculture.[37] Smaller acreages show a marked decrease of 60.9 percent from 1992 to 1997. Part of this decrease may be attributable to the lower response rate of this study.[38] The second group size, 81-240 acres, had an estimated decrease of 15.2 percent in the same five years. Conversely, a 91.6 percent increase occurred in the 241-600 acre category and a 120 percent increase in the acreage size over 600 acres occurred from 1992 to 1997. These trends show important changes in the size of acreages owned by respondents in the survey.

Summary

Chapter III examines land ownership patterns, analyzing changes between 1982 to 1997 and 1992 to 1997. The following conclusions can be drawn:

- Sole owners and husband and wives as joint owners are the major landowners in Iowa with combined ownership of 70.3 percent of all farmland.
- The percent of farmland which is owner-operated has decreased from 55 percent in 1982 to 50.1 percent in 1992 to 38.6 percent in 1997.

[37] 1992 Census of Agriculture-Iowa, United States Department of Agriculture, 1994.

[38] See Chapter II, Table 2.1, survey methods and response, supra.

- Professional farm manager use continues to increase, but at a slower rate, from 4.5 percent of all land in 1992 to 5.1 percent of all Iowa farm land in 1997 for a 13.3 percent increase.
- Farmland under a mortgage or purchase contract has increased from 29.8 percent in 1992 to 41.2 percent in 1997 as a percentage of all farmland. Financing under purchase contracts declined 11.2 percent from 1992 levels to 1997 while mortgage loans increased sharply by 60.7 percent in the same time frame.
- 37.8 percent of all farmland was acquired through gift or inheritance and the remaining 62.2 percent was purchased (61.9 percent) or acquired in another manner (0.3 percent) by the current owners.
- The number of small acreages has fallen sharply: 49.3 percent of Iowa farmland is owned in sizes less than 240 acres and a slightly larger portion, 50.7 percent, owned in sizes greater than 240 acres. This compares with almost 74.7 percent in 1992 owned in sizes less than 240 acres.
- Most land is acquired from sole owners, estates of sole-owners, or other co-owners which includes partnerships. These ownership types account for 88.5 percent of owners from which farmland was acquired.

CHAPTER IV

DEMOGRAPHICS

This chapter focuses on the characteristics of Iowa farmland owners and their demographics such as age, residency, education, and occupation. The demographics of owners are expressed on the basis of the percentage of farmland owned. Demographics for the 1982 and 1992 studies are given and a comparison of the 1997 study is made with the two previous studies.

Demographics analyzed include:

- The owner's age and age cross-tabulated with the size of land holdings and financing methods used to acquire land.
- Residency and occupancy (whether the land is owned by residents of Iowa and if they live on the land they own),
- Highest education completed and education cross-tabulated with age,
- Occupation, and
- Gender and marital status.

Age

The age of a landowner can reflect probabilities of land transfer in the future. Land ownership turnover is of interest to state and local leaders because it may reflect conditions in the agricultural economy and carries implications for the future of agriculture in the state. Tenure of the land tends to change with the stage in the life cycle as measured in years. Transfer and tenure of land are both age sensitive.[39]

[39] Wunderlich, G., "Owning Farmland in the United States, Agricultural Information Bulletin No. 67, Economic Research Service, U.S.D.A., December 1991, p.7.

Table 4.1 Percentage of farmland by age of farmland owners in stages of the life cycle, 1982, 1992, and 1997

Early stage:	**1982**	**1992**	**1997**	**% change '82-'97**	**% change '92-'97**
<25 years	1.3	0.6	1.1	-15.3	+83.3
25-34	10.3	5.9	2.3	-77.7	-61.0*
Mid-stage:					
35-44	14.0	10.5	12.5	-10.7	+19.0
45-54	23.0	18.3	17.6	-23.4*	-3.8
55-64	22.3	20.8	27.9	+25.1*	+34.1*
Late-stage:					
65-74	16.8	23.2	18.8	+11.9	- 18.9*
>74	12.3	18.5	19.7	+60.1*	+12.3

*Statistically significant change at the 5 percent level

Table 4.1 shows a decline of ownership by owners in the early stage from 1982 to 1997. This is a decrease of 15.3 percent for owners under 25 years of age and a 77.7 percent drop in the percentage of farmland owned by landowners in the 25-34 years of age group since 1982, suggesting fewer young persons have acquired farmland ownership. The percentage of farmland owned by individuals under 35 years of age has slipped from 11.6 percent in 1982 to 3.4 percent in 1997.

Mid-stage landowners held about the same percentage of land in 1997 as they did in 1982 (59.3 percent), but more than they owned in 1992 (49.6 percent). The first group in the mid-stage, 35-44 years old, owned 14 percent in 1982 and 10.5 percent in 1992. From 1982 to 1997, there was a 10.7 percent decrease, but from 1992 to 1997 there has been a 19 percent increase in the same group. Owners 45-54 years of age have fallen in land ownership in both periods, 1992 and 1997. A 23.4 percent decrease from 1982 to

1997 was estimated and that rate of change has been less (3.8 percent) in the 1992 to 1997 period. The final group in the mid-stage, 55-64 years of age, has had a statistically significant increase at the 5 percent level in both periods: a 25.1 percent increase from 1982 and a 34.1 percent increase since 1992.

The late-stage age group, owners 65 years and older, showed an increase from 29.1 percentage points in 1982 to 41.7 percentage points in 1992 but a decrease to 38.5 percentage points in 1997. These results support the high percentage of land shown acquired in the last five years in Table 3.6 and the continued turnover in land ownership that can be expected to come in the near future in Iowa farmland ownership as land is necessarily transferred at death, if not before. Owners, 65-74 years of age, have increased acreage owned by 11.9 percent from 1982 to 1997. But, owners, 75 years and older, own 60.1 percent more land in the same 15 year period. This increase is statistically significant at the 5 percent level. For a more detailed discussion, see Chapter V concerning land tenancy patterns and age and Chapter VI for more detail on the anticipated transfer of farmland cross-tabulated with age in Iowa.

Age cross-tabulated with acreage size

For every group of landowners, early, mid, and late-stage, their percentage of farmland decreased in the less than 100 acre size category in Table 4.2. This trend continued for the 100 to 279 acre sizes where early-stage owners have a 50 percent decrease, mid-stage owners a 2.6 percent decrease and late-stage owners a 19.1 percent decrease from 1992 to 1997. In 1997, each age category of landowner owned the largest share of their land in acreages sized 100-279 acres. This was also the pattern in 1992.

Table 4.2 Percentage of farmland owned by age cross-tabulated with size of owned acreage, 1982, 1992 and 1997

Size	**<34 years of age**			**35-65 years of age**			**>65 years of age**		
Acres	1982	1992	1997	1982	1992	1997	1982	1992	1997
0-99	7.6	2.4	0.4	24.1	19.5	6.0	12.6	14.6	5.6
100-279	3.1	3.2	1.6	23.7	19.5	19.0	13.1	20.9	16.9
280-519	0.5	0.7	1.0	8.7	7.5	19.1	2.4	4.9	17.5
>519	0.2	.06	0.5	1.7	3.0	9.5	0.5	1.2	3.8

Changes in acreage sizes from 280-519 acres differ from the 100-279 acre size patterns with increases in all age categories in the 280-519 acreage range. Early stage landowners gained 42.8 percent, while mid-stage owners gained 154 percent, almost doubling their ownership percentage and late-stage owners gained 257 percent, nearly tripling their ownership from 1992 to 1997. A similar trend is evident in each age category for acreages greater than 519 acres. An increasing percentage of ownership in the largest acreage size occurred in every age stage. These changes demonstrate a trend toward larger owned acreage sizes for all age groups.

Age cross-tabulated with financing method

As indicated in Chapter III, equity in land is an important factor in obtaining capital, enhancing financial stability, and facing market risks. Table 4.3 cross-tabulates age and financing methods. The percentage of debt-free land decreased in every age-stage from 1992 to 1997 with the largest decrease among mid-stage age group owners. The percentage of land under purchase contract from 1992 to 1997 decreased in the early-stage, remained unchanged in the mid-stage and almost doubled in the late-stage group. However, the largest overall change from 1992 to 1997 as a percentage of farmland

generally occurred in farmland under mortgage. Land ownership in the early-stage age group decreased by 25.9 percent or 0.7 percentage points, mid-stage almost doubled or increased by 8.6 percentage points, and late-stage more than doubled for a four percentage point increase in the amount of land secured by a mortgage, respectively, from 1992 to 1997.

Table 4.3 Percentage of Iowa farmland owned by age cross-tabulated with financing methods, 1992, and 1997

Finance method	**<35 years of age**		**35-64 years of age**		**>64 years of age**	
	1992	1997	1992	1997	1992	1997
Debt free	1.0	0.9	29.8	24.3	38.8	34.6
Contract	2.8	0.6.	7.5	7.5	0.7	1.3
Mortgage	2.7	2.0	13.2	21.8	3.0	7.0

Looking at 1997 data, early-stage landowners have 25 percent of their land debt-free, 18 percent under contract, and 57 percent owned through mortgages. On the other hand, mid-stage owners have 45.3 percent of their land debt-free, 14 percent under contract, and 40.7 percent with a mortgage. Finally, late-stage owners have 80.6 percent of their land debt-free, 3 percent under contract, and 16.4 percent mortgaged. These percentages are calculated by dividing the percentage owned in each category by the percentage owned in each stage for the three respective age groups.

Residency of Iowa Farmland Owners

Ownership of Iowa land by non-residents has been a concern to the Iowa General Assembly.[40] Table 4.4 shows the percentage of farmland owned by U.S. citizens and

[40] Acts of 66th Iowa General Assembly, ch. 133 (1975), now *Iowa Code* ch. 567.3 (1997).

Table 4.4 Percentage of land owned by residents of Iowa, 1982, 1992, and 1997

Residency	**1982**	**1992**	**1997**	**% change '82-'97**	**% change '92-'97**
U.S. citizen and Iowa resident	93.6	90.6	86.2	-7.9*	-4.8*
Non-Iowa resident	6.4	8.7	13.8	+115.0*	+58.6*

*Statistically significant change at the 5 percent level

the percentage of farmland owned by non-Iowa residents.

In the 1997 study, one instance of non-U.S. citizen ownership was noted in the "other owner" category in the survey. This correlates with the Iowa Department of Agriculture and Land Stewardship data which show one tenth of one percent of Iowa farmland owned by non-citizens.[41] Nationwide, non-resident aliens own one percent of all U.S. farmland.[42] Table C.14 in Appendix C gives a summary of ownership by residents and non-residents by ownership type of the land in the survey. Non-residents own more land than residents as a percentage in the following ownership types: other joint/co-ownership, partnerships, estates, trusts, corporations, and limited liability companies.

The percentage of Iowa farmland owned by residents of the state has changed, ranging from 93.6 percent in 1982 to 90.6 percent in 1992 and 86.2 percent 1997. Non-resident owners are involved in 13.8 percent of Iowa farmland as of 1997. An Iowa resident could be a U.S. citizen or a non-U.S. citizen. In this study, all were U.S. citizens

[41] Iowa Department of Agriculture and Land Stewardship, Bureau of Statistics, 1998.

[42] Wunderlich, G., "Owning Farmland in the United States", Agricultural Information Bulletin No. 637, Economic Research Service, U.S.D.A., 1991.

except the one instance mentioned. Increases in the percentage of non-Iowa residents are statistically significant at the 5 percent level for each period.

Owner Occupancy of Farmland

Another important aspect of ownership as a corollary to residency is whether the owner lives on the land being surveyed. The changes reflected in Table 4.5 are not statistically significant in terms of location of landowner's homes between 1992 and 1997. Most landowners live on the land surveyed or other farmland they own under a different ownership structure. But, the number of owners living on their own land has decreased 13.2 percent from 1982 to 1997. Also, as owned acreage size increases it is inferred that there are fewer landowners. The 1997 study shows that 56.8 percent of owners live on farmland they own, either on the surveyed farmland or other farmland they own. This is an increase in the percentage of owners living on their own farmland of 54.3 percent from owners who lived on their land in 1992, but is a decrease from the 63.6 percent who lived on their own farmland in 1982. A pattern of fewer owners living on land they own is statistically significant at the 5 percent level over the entire 1982 to 1997 period.

Table 4.5 Percentage of farmland occupied by owners, 1982, 1992, and 1997

Occupancy	**1982**	**1992**	**1997**	**% change '82-'97**	**% change '92-'97**
Live on land surveyed	56.7	48.0	49.2	-13.2*	+2.5
Live on other farmland owned	5.9	6.3	7.6	+28.8	+20.6
Do not live on owned farmland	37.4	45.7	43.2	+15.5*	-5.4

*Statistically significant at the 5 percent level

Highest Formal Education Level Completed

Table 4.6 shows that the education levels of landowners as a percentage of farmland owned have generally increased. This is illustrated by increases from 1982 to 1997 of owners with post high school education. In the 1997 study, owners with graduate work experience increased 37 percent. Those owners with bachelor's degrees increased 90 percent, some college experience showed a 0.4 percent increase, and the percentage change of high school graduates increased by 12.4 percent from 1992. During the same period, owners not completing high school plummeted 80.4 percent. Landowners with bachelor's degrees, some college, and those not completing high school were all changes found to be statistically significant at the 5 percent level during the 1992 to 1997 period. Owners who have completed high school make up the largest percentage of farmland owners at 47.1 percent in 1997.

Table 4.6 Percentage of farmland owned, according to highest formal educational level completed, 1982, 1992, and 1997

Education	**1982**	**1992**	**1997**	**% change'82-'97**	**% change'92-'97**
Graduate work	7.0	6.2	8.5	+21.4	+37.0
Bachelor's degree	9.8	9.0	17.1	+71.4*	+90.0*
Some college	17.5	23.9	24.0	+27.1*	+0.4
High school grad.	47.8	41.9	47.1	-1.5	+12.4*
Did not complete high school	16.5	16.4	3.2	-80.6*	-80.4*

*Statistically significant change at 5 percent level

Table 4.7, in comparing 1992 and 1997, shows that the educational level continued to increase during that time period for all landowner age groups. Graduate degree level owners increased their percentage of ownership in every age from 1992 to 1997. The pattern was the same for bachelor's degree level owners except for the early-

Table 4.7 Percentage of farmland by educational level cross-tabulated with farm-cycle stages, 1992, and 1997

Education level	1992			1997		
	Early	Mid	Late	Early	Mid	Late
Graduate work	0.1	4.4	1.5	0.2	6.8	1.6
Bachelor's degree	1.5	4.9	2.6	1.0	11.8	3.3
Some college	1.9	13.1	8.7	1.4	14.9	7.6
High school	3.1	22.9	15.9	1.1	23.1	23.0
High school not completed	0.0	4.2	12.0	0.2	1.0	2.0

stage owners who experienced a 50 percent decrease. Owners with some college decreased in the early and late-stages, but showed a modest increase in the mid-stage period. The percentage for high school graduates in the early-stage fell, but rebounded in the mid-stage and was especially strong in the late-stage period. Lastly, the same 1992 to 1997 period showed a slight increase among the early-stage owners and a major decline in the mid and late stage owners who had not completed high school.

Occupation

Of interest concerning occupations is the connection between farming-related occupations and farmland owned by those in these occupations. Landowners were asked about their principal occupation engaged in during most of their adult life. Their responses were analyzed in relation to the number of acres owned. The same questions about occupation of respondents were asked in the 1982, 1992 and 1997 surveys.

Table 4.8 reveals a statistically significant reduction in ownership from 1992 to 1997 by owners who are principally farmwives/housewives, showing a 15.4 percent reduction. Farmer/farm managers have a significant offsetting increase of over 30.4 percent in the same time period. An increase of 6.6 percent of farmland owners occurred

Table 4.8 Occupation of farmland owners as a percentage of farmland owned, 1982, 1992 and 1997

Occupation	1982	1992	1997	% change '82-'97	% change '92-'97
Farmwife/housewife	31.4	33.6	28.4	-9.5	-15.4*
Farmer/farm manager	34.9	29.6	38.6	+10.6	+30.4*
Professional/technical	11.9	12.0	12.8	+7.5	+6.6
Clerical	3.9	4.3	3.5	-10.2	-18.6
Persons in other occupations	17.9	20.6	16.7	-6.7	-18.9*

*Statistically significant change at the 5 percent level

in the professional/technical occupation category while the ownership by clerical occupation owners and owners in other occupations fell by similar percentages.

Gender and Marital Status

Iowa farmland owned by females decreased by 2.1 percentage points or a 4.3 percent decrease from 1992 to 1997 to 46.2 percent of Iowa farmland. Male ownership increased 2.8 percentage points or 5.5 percent from 1992 to 1997 to 53.8 percent. This percentage is similar to the percentage ownership for males in 1982. These changes in Table 4.9 show no statistically significant differences in either period for males or females. One instance of ownership by minors was revealed in the data, but no gender accompanied it.

In Table 4.10, gender is cross-tabulated with age to see if changes occurred in ownership among the three different age groups by gender in both periods. Slight

Table 4.9 Gender distribution of farmland ownership by percentage of farmland owned, 1982, 1992, and 1997

Gender	1982	1992	1997	% change'82-'97	% change'92-'97
Female	46.6	48.3	46.2	-0.8	-4.3
Male	53.0	51.0	53.8	-1.5	+5.5

decreases among females in the early and late-stages are observed in the 1982 to 1997 period with an increase in the mid-stage of 16.4 percent. Male ownership decreased in the early-stage, but increased in the mid and late-stage groups over both periods. The mid-stage group showed the largest percent increases for males and females from 1992 to 1997 of 8.7 and 16.4 percent, for males and females, respectively.

Table 4.10 Gender cross-tabulated with age in percentage of farmland owned, 1982, 1992, and 1997

Gender	**<35 years of age**			**35-65 years of age**			**>65 years of age**		
	1982	**1992**	**1997**	**1982**	**1992**	**1997**	**1982**	**1992**	**1997**
Females	5.0	2.8	1.0	26.6	21.9	25.5	14.9	23.5	19.6
Males	6.6	3.8	1.5	32.7	28.5	31.0	14.2	18.9	19.0

Table 4.11 reflects the marital status of Iowa farmland owners. In 1997, 74.8 percent of Iowa farmland was owned by married persons, with no significant change from 1982 or 1992 to 1997. Over 15 percent of the land is owned by widowed persons. The percentage of farmland owned by persons who have never married decreased by 43.3

Table 4.11 Marital status of Iowa landowners by percentage of farmland owned, 1982, 1992, and 1997

Marital Status	**1982**	**1992**	**1997**	**% change'82-'97**	**% change '92-'97**
Married	76.5	74.9	74.8	-2.2	-0.1
Widowed	13.9	17.1	15.3	+10.1	-10.5
Never married	6.7	3.3	3.8	-43.3*	+15.2
Separated/divorced	2.3	3.4	4.2	+82.6*	+23.5
Non-respondents	0.6	1.2	1.9	+216.0*	+58.3

*Statistically significant change at the 5 percent level

percent to 3.8 percentage points from 1982 to 1997, a statistically significant change. Landowners separated or divorced likewise experienced a statistically significant change at the 5 percent level with an 82.6 percent increase from 1982 to 1997 to 4.2 percentage points of all Iowa farmland in that landowner status category. The non respondent category includes individuals deceased (persons who died between the time the respondent information was received from the county auditors and the time the survey was conducted, July 1, 1997 to December 1998), minors, or individuals who refused to respond to the question.

Summary

Current demographics of Iowa farmland owners can be summarized by the following:

- 19.7 percent of Iowa farmland is owned by individuals more than seventy-four years old in 1997 compared with 18.5 percent in 1992. Individual owners between 65-74 years of age own 18.8 percent of Iowa farmland compared to 23.2 percent in 1992.
- Early-stage landowners have 25 percent of their land debt free, the mid-stage owners have 45.3 percent of their land free of debt, and late-stage owners have 80.6 percent of their land free of debt.
- 86.2 percent of Iowa farmland owners consider themselves residents of Iowa and 56.8 percent live on farmland they own.

- A farmland owner is most likely to have an occupation related to farming; 67 percent are directly involved either as a farmer, farm manager, or farmwife.
- Males have increased the percentage of farmland owned from 51 to 53.8 percent in the five years of 1992 to 1997 and males in the mid-stage age group own the largest portion of Iowa farmland at 31 percent.
- 74.8 percent of farmland was owned by married persons in 1997.
- 28.4 percent of the landowners surveyed responded that their spouse was involved with the family operation in some manner.

CHAPTER V

FARMLAND LEASING

Because of the increasing number of landowners leasing farmland,[43] the 1997 study extended the analysis of landowners participating in lease or rental arrangements. This chapter focuses on land not owner-operated and characteristics of owners who lease land. Three general lease categories are considered: 1) cash rent lease, 2) crop share lease, and 3) other rental arrangements. It is recognized that many leases represent modification of the traditional cash rent or share rent, but respondents were asked to characterize the lease on the basis of its predominant characteristics.

Table 3.2 shows that each lease category expressed as a percentage of all Iowa farmland has been increasing since 1982 and contrasts with Table 5.1 below. With the increased use of lease or rental arrangements, many policy issues become more visible. A few of these issues include tenant production incentives, environmental impacts and, possibly, different goals among the landlord, tenant, and the public.

Another important issue relating to lease and rental practices regards the formality of the agreement. Fifty percent of farmers interviewed in 1993 reported that they had no formal lease agreement; rather it was verbal in nature.[44] It is important to note that this statistic does not relate to the percentage of farmland owned, but to percentage of landowners and tenants in the lease survey.

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[43] Rogers, D., "Leasing Farmland in the United States", Agriculture Information Bulletin No. 681, Economic Research Service, U.S.D.A., 1991.

[44] Edwards, W., "Survey of Iowa Farm Leasing Practices", Iowa State University, FM-1811, November 1996.

Table 5.1 Percentage of leased land under different lease arrangements, 1982, 1992, and 1997.

Tenancy Arrangement	1982	1992	1997	% change'82-'97	% change'92-'97
Cash rent	48.8	54.2	57.1	+17.0*	+5.3
Crop share	48.8	44.0	38.8	-20.5*	-11.8*
Other rent arrangements	2.4	1.8	4.1	+70.8	+127.0*

Table 5.1 reveals the percentages of leased farmland under the various lease arrangements. Cash rent leases are found on 57.1 percent of leased farmland. Crop share arrangements are utilized on an additional 38.8 percent and 4.1 percent of leased farmland is under other rental arrangements. Changes from 1982 to 1997 are statistically significant at the 5 percent level for cash rent and crop share arrangements. During this period, cash rent has increased almost 10 percentage points from 48.8 to 57.1 percent and crop share leases have decreased by 10 percentage points, 48.8 to 38.8 percent.

Land under Lease Agreements

Cash rental agreements have been a popular choice among landowners since the 19th century.[45] Under cash rental agreements, as the name implies, the landlord generally receives a set amount of cash rent in return for transferring the use of the land to a second party, the tenant. Often, the payment is made in two installments: one in the spring and a second payment following harvest. Additionally, government farm program payments generally go to the tenant under cash rent arrangements. Under cash rental arrangements, owners of land can have professional farm managers ensure that the land is cared for and intercede as the owner's agent who deals with the tenant directly.

[45] Winters, D., *Farmers Without Farms,* Greenwood Press: Connecticut, Table 3-4, p.66 1978.

Crop share leases are the second major arrangement in the leasing of farmland. Under crop share leases, both owner and tenant share in the expense and income of the crop. Many different arrangements exist and are generally negotiated specifically between the two parties. Because sharing of expenses and income exists, greater risk is assumed by the landlord. Equity issues between tenant and landlord are often a driving force under this arrangement.

Other rental arrangements include various hybrid leases of the two options discussed above. Additionally, livestock share leases are a part of "other rental arrangements."

These three categories are used to encompass all farmland leased for agricultural purposes and are cross-tabulated with other important owner characteristics.

Ownership type

Table 5.2 shows ownership type and their lease methods. Sole owners lease 35.7 percent of Iowa farmland that is leased based on the 1997 study. Sole owners are followed by husband and wife (joint) owners at 31 percent, other co-owners at 5.3 percent, partnerships with 4.9 percent, estates with 4 percent, trusts with 8.7 percent, corporations with 4.2 percent, and LLCs with 6.2 percent. Trust and LLC owners of farmland lease a much higher proportion of farmland than they own. Remaining ownership types lease percentages similar to percentages of land they own (see Table 3.1).

Table 5.2 Percentage of leased Iowa farmland by ownership type, cross-tabulated with lease method, 1997

Ownership type	Cash rent	Crop share	Other renting	Total
Sole owner	20.0	14.9	0.8	35.7
Husband and wife (joint)	21.0	9.0	1.1	31.0
Other co-ownership	3.8	1.6	0.0	5.3
Partnership	2.4	2.2	0.3	4.9
Estates	1.5	2.4	0.0	4.0
Trusts	4.6	3.3	0.8	8.7
Corporations	1.9	2.0	0.3	4.2
Limited liability companies	1.9	3.4	0.9	6.2

Age

Landowners 65 years of age and older own 54.1 percent of all leased farmland. The mid-stage age group has the second largest amount of leased land ownership at 41.5percent. Younger landowners, 34 years of age and younger, own 2.4 percent of the farmland leased. These estimates are contained in Table 5.3.

Gender

Gender is cross-tabulated with lease methods in Table 5.4. Male and female landowners in 1997 leased nearly equal percentages of farmland. Females own 51.3 percent of farmland leased while males own 48.7 percent of leased farmland. This result follows the pattern of a national study finding ownership of leased farmland to be

Table 5.3 Percentage of leased Iowa farmland by lease method cross-tabulated with age group, 1997

Age group	Cash rent	Crop share	Other renting	Total
< 35 years of age	0.8	1.0	0.5	2.4
35-64 years of age	24.7	16.7	1.1	41.5
>64 years of age	30.5	21.1	2.5	54.1

Table 5.4 Percentage of leased Iowa farmland by gender cross tabulated with lease method, 1997

Gender	Cash rent	Crop share	Other renting	Total
Male	27.2	18.8	2.7	48.7
Female	30.2	20.3	0.9	51.3

higher for females.[46]

Regional distribution of leased land

Estimates of regional distribution of leased land place 24.1 percent of all land leased in the eastern region as shown in Table 5.5. This eastern region encompasses twenty-three counties and the largest percentage of farmland of all the regions in the state. Northeastern Iowa has the second largest percentage of leased farmland at 15.6 percent and includes 16 counties. The north central region has 14.5 percent of Iowa leased land, the southern region 12.9 percent, the southwest region 12.6 percent, and the north and in order to get a better idea of how much land is leased in each region, regional northwestern regions have the lowest percentage of leased farmland in the state at 10.3 and 9.9 percent, respectively.

Table 5.5 Percentage of leased Iowa farmland by region cross-tabulated with lease method, 1997

Region	Cash rent	Crop share	Other renting	Total	% land leased
NW	5.9	4.0	0.0	9.9	52.8
SW	3.5	9.1	0.0	12.6	60.7
N	5.4	4.9	0.0	10.3	82.2
NC	7.6	6.2	0.8	14.5	65.5
S	5.5	5.3	2.2	12.9	49.2
NE	10.6	4.4	0.5	15.6	61.7
E	18.6	4.9	0.6	24.1	64.3

[46] Rogers, D., "Leasing Farmland in the United States", Bulletin AGES-9159, Economic Research Service, U.S.D.A. 1992.

In order to get a better idea of how much land is leased in each region, regional estimates were generated. The estimated percent of land leased by region can be compared with the 61.4 percent estimated in Table 3.2. Iowa's estimated percentage of leased land by region are: northern region 82.2 percent, northcentral region 65.5 percent, eastern region 64.3 percent, northeastern region 61.7 percent, southwest region 60.7 percent, northwest region 52.8 percent, and the southern region with 49.2 percent.

Education

Iowa farmland owners with graduate work own 10.6 percent of leased farmland. Bachelor's degree holders own 18.4 percent, owners with some college own 20 percent, high school diploma holders own 47.7 percent, and owners who had not completed high school own 13.5 percent of leased Iowa farmland. Estimates for percent of leased land cross-tabulated with owner's education level are found in Table 5.6.

Table 5.6 Percentage of leased Iowa farmland by owner's education level cross-tabulated with lease method, 1997

Education level of leasing landowners	Cash rent	Crop share	Other renting	Total
Graduate work	5.9	3.6	1.1	10.6
Bachelor's degree	8.8	8.2	1.3	18.4
Some college	12.1	7.9	0.0	20.0
High school diploma	25.7	20.4	1.3	47.4
No HS diploma	2.2	0.2	0.6	13.5

Landlord and tenant decision making

Several questions were asked of landowners leasing land to tenants. In considering landowner involvement, Table 5.7 reveals that cooperative decision making between the landlord and the tenant is common and shows areas of emphasis in decision

making by the landlord or landlord and tenant. All of the percentages in Table 5.7 sum to 100 percent; however, the decision making process represented by these percentages only encompasses decisions made by 32.6 percent of landowners who lease land. These categories of decision making are not exclusive. A landowner may participate in more than one decision.

Four types of involvement in the decision making process were considered: 1) crop, 2) seed, 3) fertilizer, and 4) chemical decisions. In each case, the landowner could make the decision solely, or together with the tenant. Note that these findings are based on decision making as perceived by the landowner. Comparing decisions of the landlord with landlord/tenant decision making and with all four types of involvement, the joint decision percentage was greater with every type of involvement except in the determination of which crop to plant. Decisions concerning chemical usage had the highest overall involvement by landowners and landlord/tenants at 53.6 percent. Crop decisions were second with 24.3 percent of landowner and landowner/tenant involvement in this category type. Landowner and landowner/tenant involvement in seed and

Table 5.7 Percentage of leased Iowa farmland by type of involvement in the leased land as perceived by the landowner, cross-tabulated with lease method, 1997

Type of involvement	**Cash rent**	**Crop share**	**Other renting**
Landlord makes crop decision	6.3	3.8	0.0
Landlord makes seed decisions	0.0	1.6	0.8
Landlord makes fertilizer decisions	3.1	1.6	0.0
Landlord makes chemical decisions	6.8	3.2	0.0
Landlord/tenant make crop decisions	3.3	10.2	1.6
Landlord/tenant make seed decisions	0.8	5.2	0.0
Landlord/tenant make fertilizer decisions	2.6	4.3	0.8
Landlord/tenant make chemical decisions	7.6	33.6	2.4

fertilizer decisions were lowest at 12.5 and 8.6 percent, respectively. Landlords make 27.2 percent of the decisions alone while both landlord/tenant make decisions 72.8 percent of the time. In other words, landlords solely make decisions on 8.87 percent of land leased and landlord/tenants make decisions jointly on 23.72 percent of land leased.

Professional farm managers manage 5.1 percent or an estimated 1.615 million acres of Iowa farmland.[47] This converts to almost nine percent of leased land being managed by a professional farm manager. Table 5.8 shows the percentages of leased land under professional farm management cross-tabulated by lease arrangement.

Table 5.8 Percentage of leased Iowa farmland by lease method managed by a professional farm manager, 1997

Professional farm manager	**Cash rent**	**Crop share**	**Other renting**
	51.2	35.0	13.8

Of the nine percent of leased land managed by a professional farm manager, 35 percent was rented under a crop share lease. However, cash rent remains the main arrangement utilizing farm managers with 51.2 percent of professionally managed farmland under a cash rent lease arrangement. Thus, farm managers manage 2.6 percent of all Iowa farmland under a cash rental arrangement. Other rental arrangements were used on the remaining 13.9 percent of managed farmland.

Of all Iowa farmland leased, 7.6 percent of it has material participation by the landowner. It is not surprising that most of the material participation, 5.7 percent, takes place under the crop share arrangement. However, 1.7 percent of leased farmland has some material participation under cash rent and 0.3 percent under other rental

[47] See Table 3.3, supra.

Table 5.9 Percentage of leased Iowa farmland with material participation leases cross-tabulated by lease method, 1997

Materially participates	Cash rent	Crop share	Other renting	Total
	1.7	5.7	0.3	7.6

arrangements as shown in Table 5.9. An important result is the relatively small percentage of landowners who participate substantially in the farming of their land.

Owner residency of leased farmland

In 1997, Table 5.10 shows Iowa residents owned 79.9 percent of all leased farmland. Of the 79.9 percent, 49.2 percent is under cash rent leases, 27.4 percent is leased under crop share arrangements, and 3.3 percent is under other arrangements. Of interest concerning non-residents is the higher percentage of leased land, 11.5 percent, under a crop share arrangement as compared to 7.4 percent under cash rent arrangements. Non-residents leasing land are estimated at 20.1 percent as compared to non-resident ownership of all farmland at 13.8 percent.[48]

Length of tenant's tenure

Another area of interest is the length of tenure of Iowa farmland tenants. Estimates for tenant tenure duration are contained in Table 5.11 Historically, concern has been expressed that the state does not do enough to assist tenants in maintaining the

Table 5.10 Percentage of leased Iowa farmland by state of residency, cross-tabulated with lease method, 1997

State of residency	Cash rent	Crop share	Other renting	Total
Iowa resident	49.2	27.4	3.3	79.9
Non-Iowa resident	7.4	11.5	1.2	20.1

[48] *Id.*

stability of agriculture by intervention in this area.[49] Owners holding 5.6 percent of leased land say their tenant has leased land for only a one-year period. Table 5.11 shows that tenants on 25.9 percent of leased land have tenure ranging from 2 to 5 years, tenants on 24.6 percent of leased land have tenure from 6 to10 years, and tenants on 22 percent of leased farmland have tenant tenure between 11 and 20 years. Thirteen percent of leasing landowners report tenant tenure in excess of 20 years. The final category, multiple tenants/multiple tenure lengths, shows the percentage of leased land with multiple tenants and/or a varied number of years the tenant(s) have farmed the land. This category encompasses 9 percent of leased farmland.

Table 5.11 Percentage of leased Iowa farmland by length of tenant's tenure, cross-tabulated with lease method, 1997

Tenure length of tenant	**Cash rent**	**Crop share**	**Other renting**	**Total**
One year	3.6	1.9	0.0	5.5
2-5 years	18.2	6.7	1.0	25.9
6-10 years	14.3	9.0	1.3	24.6
11-20 years	11.0	11.0	0.0	22.0
>20 years	6.2	6.3	0.5	13.0
Multiple tenants/tenure lengths	3.4	4.8	1.1	9.0

Finance method

Table 5.12 can be contrasted with Table 3.4, the percentage of Iowa farmland by finance method. Sixty percent of all farmland is debt free and 72.2 percent of leased land is debt free. Land under contract is seven percent of all farmland, but only 5.6 percent of

[49] Winters, D., p. 15.

Table 5.12 Percentage of leased Iowa farmland by finance method cross-tabulated with lease method, 1997

Finance method	Cash rent	Crop share	Other renting	Total
Debt free	40.0	30.7	1.5	72.2
Contract	3.7	1.1	0.8	5.6
Mortgage	13.2	7.5	1.5	22.2

leased farmland. Thirty and one-half percent of farmland is mortgaged, but only 22.2 percent of mortgaged farmland is leased. These numbers suggest that encumbered land is more likely to be leased.

Occupancy of farmland

Owners who live on land they own appear less likely to lease it to tenants. Table 5.13 shows owners who live on other farmland than that represented in the survey, own 6.2 percent of leased land. Owners who live on farmland surveyed own 36.6 percent of leased land. Leasing landowners, who do not live on farmland owned, own 57.2 percent of leased land.

Principal occupations of leasing landowners

A final analysis of leased farmland concerns the principal occupation of the landowners and is shown in Table 5.14. Farmwives own 28.4 percent of all farmland and own 32.4 percent of leased farmland. By contrast, farmers own 38.6 percent of all land

Table 5.13 Percentage of leased Iowa farmland occupied by owners cross-tabulated with lease method, 1997

Occupancy	Cash rent	Crop share	Other renting	Total
Live on farmland surveyed	22.5	13.0	1.1	36.6
Live on other farmland owned	4.3	1.6	0.3	6.2
Do not live on surveyed farmland or other farmland owned	30.2	24.2	2.8	57.2

and own 29.2 percent of the leased land. Professional/technical occupation owners have 14.7 percent of leased land compared to 12.8 percent of land ownership. Three percent of leased land is owned by clerical occupation owners compared to ownership of 3.5 percent of all farmland. "Other occupation" landowners own 16.7 percent of all farmland and own 20.5 percent of leased farmland. See Table 4.8.

Table 5.14 Percentage of leased Iowa farmland by owner-occupation, cross-tabulated with lease method, 1997

Principal occupation	**Cash rent**	**Crop share**	**Other renting arrangement**	**Total**
Farmwife/housewife	18.1	13.2	1.1	32.4
Farmer/manager/rancher	16.2	12.0	1.0	29.2
Professional/technical	8.3	5.4	1.0	14.7
Clerical	1.9	1.1	0.0	3.0
Landowners in other occupations	12.3	7.2	1.0	20.5

Summary

This chapter analyzed leased land, land that is not owner-operated and the characteristics of the owners of that leased land. The following are some of the highlights of leased land:

- Cash rental arrangements continue to be the predominant choice of landowners, totaling 57.1 percent of all leased land.
- Individual owners aged 65 years and older account for ownership of 54.1 percent of leased farmland.
- As specified by the study, the eastern region of Iowa has the largest percentage of leased farmland at 24.1 percent followed by northeastern Iowa.

- Joint decisions between the landlord and tenant dominate in determining chemical, fertilizer, and seed use on farmland. But, landowners are especially interested in chemical usage decisions on their land. Of the 32.6 percent of landowners making decisions concerning their leased land, 53.6 percent of landlord and landlord/tenant decision making regarded chemical usage.
- Material participation takes place on 7.6 percent of leased farmland.
- The length of tenure of tenants is eight years on average; however, no information was studied regarding the length of lease contracts.
- Landowners not living on farmland they own are more likely to lease.
- Professional farm managers assist on 9 percent of the leased farmland; 51.2 percent of that assistance occurs under cash rent arrangements.
- Females own 51.3 percent of leased farmland in Iowa and farmwives/housewives own 32.4 percent of the leased land, the highest percentage of any of the occupational categories.
- Non-residents of Iowa own 20.1 percent of the leased farmland.
- Land free of debt is more likely to be leased.

CHAPTER VI

CONSERVATION AND EASEMENT PROGRAMS

The FAIR Act of 1996 expanded the existing conservation programs that were enacted by the Food Security Act of 1985.[50] Title III, the conservation title of the FAIR Act of 1996, created new programs to address high priority environmental protection goals. These reforms provide for federal farm program benefits for owner/operators and tenant farmers for utilizing approved land stewardship practices. Title III helps carry out one of the four main purposes of the FAIR Act of 1996 "...to support farming certainty and flexibility while ensuring continued compliance with farm conservation and wetland protection requirements."[51]

In order to qualify for market transition payments under the basic commodity programs replacing traditional subsidies, farm operators must agree to abide by conservation compliance and wetland conservation provisions in the 1996 farm bill. Not only are conservation programs expanded, but the requirements of conservation compliance of ongoing farm operations must be met to qualify for the payments as the markets transition. Of the several subtitles to the Conservation Title, the 1997 study focused on three programs under subtitle D—Environmental Conservation Acreage Reserve Programs: 1) Conservation Reserve Program (CRP), 2) Wetlands Reserve Program (WRP), and 3) the Environmental Quality Incentive Program (EQIP).

The Conservation Reserve Program protects highly erodible and environmentally sensitive lands with grass, trees, and other long-term cover by giving farmers an incentive

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[50] FAIR ACT of 1996, Pub. L. No. 104-127, 110 Stat. 888, Title III (1996).

[51] *Id.*

to retire the land. Farmers who enroll receive an annual rental payment. The FAIR Act of 1996 re-authorized the CRP (which started in 1986) until 2002. In addition to the annual rental payments, the federal government shares up to 50 percent (with a limited cost share provision) of the cost of ground cover with landowners. Farmers must then maintain the established cover over the duration of their contract.

According to the Iowa State Agricultural Stabilization and Conservation Service, a total of 6 percent of Iowa farmland was enrolled in the CRP, as of March 1, 1992.[52] The state office of the Farm Service Agency (the successor to the ASCS) in Iowa reported just over 1.4 million acres or 4.5 percent of Iowa cropland was enrolled in CRP as of January 29, 1998.[53] This shows a decrease of one and one-half percentage points or a 25 percent reduction in CRP acres in Iowa since 1992.

The 1997 farmland ownership survey included a series of questions concerning land enrolled in the CRP, WRP, and EQIP in order to provide information on landowner participation in the three conservation programs.

Conservation Reserve Program

Table 6.1 compares the percentage of all farmland with the CRP farmland by ownership type and financing methods as analyzed in the 1997 survey. An increased percentage of farmland in the CRP owned by tenants in common and other joint owners, partnerships, trusts, estates and limited liability companies was enrolled in the CRP in 1997 as compared to 1992. A decreased percentage was registered for sole owners,

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[52] *Iowa Conservation Reserve Program Acreage Data,* Iowa State Agricultural Stabilization and Conservation Service Office, 1994, p.5.

[53] *Iowa Conservation Reserve Program Acreage Data,* Iowa Farm Service Agency Office as communicated for January 1998.

Table 6.1 Comparison of percentage of all farmland and the CRP farmland by ownership type and financing method, 1992 and 1997.

Characteristic	**All farmland**		**CRP farmland**	
Ownership type	**1992**	**1997**	**1992**	**1997**
Sole owners	37.9	31.2	44.1	27.9
Joint tenants	37.5	39.1	37.6	18.1
Tenants in common	6.7	5.6	2.1	7.7
Partnerships	2.0	4.0	3.2	9.3
Estates	3.3	2.7	2.3	3.6
Trusts	4.9	7.4	5.1	11.6
Corporations	7.6	5.3	5.5	3.4
Limited liability companies		4.7		18.4
Financing Methods:				
Free of debt	70.0	59.8	67.3	67.2
Under contract	10.7	9.5	14.9	2.4
Through mortgage	19.0	30.7	16.8	30.4

husband and wife as joint owners and corporations in the same period. The changes reflect an increase by tenants in common and other joint owners of 266 percent, partnerships by 295 percent, trusts by 215 percent, and estates of 57 percent.

The 1992 study showed that 67.3 percent of the land in the CRP was free of debt. Similarly, the 1997 results showed this percentage dropped slightly to 67.2 percent of CRP farmland in the debt-free category. The percentage of all debt-free farmland fell by 10.2 percentage points from 1992 to 1997. Land under contract has 2.4 percent of the total in the CRP in 1997 compared to 14.9 percent in the CRP in 1992. This is an 83.9 percent decrease. All farmland mortgaged increased from 19 to 30.7 percentage points and the percentage of mortgaged farmland in the CRP almost doubled from 16.8 in 1992 to 30.4 percentage points in 1997, an 81 percent increase. This is the largest increase when cross-tabulating finance methods with land in the CRP in the 1997 study.

A more specific analysis of CRP participation by farmland owners is given by age and gender patterns in Table 6.2. The middle age group between 35-64 years of age has increased in participation in the CRP by 29.2 percent, from 46.9 to 59.2 percentage points. Younger landowners, below age 35, have had the largest percentage increase, 57.1 percent, from 2.1 to 3.3 percentage points, in participation in the CRP from 1992 to 1997. Owners 65 years of age and older show a significant decrease in CRP enrollment of 24 percent, dipping from 49.4 to 37.5 percentage points in CRP land idled from 1992 to 1997, respectively.

More land owned by males was enrolled in the CRP in 1997 than 1992. A 9.7 percent increase is shown in comparing 1997 to 1992. This illustrates a small increase in CRP participation in the last five years by males. Conversely, female owner participation dropped by 8 percent. Minor and institutional owner numbers are small and do not lend themselves to evaluation.

Table 6.2 Comparison of age and gender between all owners and CRP landowners, 1997

Characteristic	**All owners**		**CRP Owners**	
Age group	**1992**	**1997**	**1992**	**1997**
<35	6.5	3.4	2.1	3.3
35-64	49.6	58.0	46.9	59.2
>65	41.8	38.5	49.4	37.5
Gender				
Female	48.3	46.2	54.7	50.3
Male	51.0	53.8	45.3	49.7

Combined Conservation Programs

Because of the strong interest in the environmental programs, questions were asked regarding participation by farmland owners in the CRP, WRP, and EQIP. CRP participation accounts for 87.8 percent of the three conservation programs analyzed with

the remaining percentages going to WRP at 7.1 percent, and EQIP at 5.8 percent. Together, WRP and EQIP are a small percentage of conservation program participation and are generally more geographically limited to areas around lakes, rivers, and other environmentally sensitive waterways.

Sole owners and husband and wife (joint) owners are the major participants in conservation programs with participation at 49.2 percent. Table 6.3 outlines these ownership types relative to their conservation program participation. LLCs have 16.3 percent of conservation program participation acres with trusts following at 11.7 percent. Other co-owners, partnerships, and corporations have 6.8, 8.2, and 4.4 percent, respectively, of conservation program participation acres and estates show the smallest participation at 3.2 percent.

Table 6.3 Percentage of conservation program participation by ownership type, cross-tabulated with specified conservation programs, 1997

Ownership type	**CRP**	**WRP**	**EQIP**	**Total**
Sole owner	23.5	2.7	2.9	28.9
Husband and wife (joint)	16.0	2.9	1.4	20.3
Other co-owners	6.8	0.0	0.0	6.8
Partnerships	8.2	0.0	0.0	8.2
Estates	3.2	0.0	0.0	3.2
Trusts	10.2	0.0	1.5	11.7
Corporations	3.0	1.4	0.0	4.4
Limited liability companies	16.3	0.0	0.0	16.3

As shown in Table 6.1, 67.2 percent of the land in the CRP is debt free. Table 6.4 shows that conservation program participation land free of debt is 66.7 percent of the land in conservation programs. Land under contract and mortgage remains an important portion of conservation program participation at a combined 33.3 percent.

Table 6.4 Percentage of Iowa farmland in all conservation programs by finance method and gender, cross- tabulated by conservation program, 1997

Finance method	CRP	WRP	EQIP	Total
Debt free	58.1	4.3	4.3	66.7
Under contract	2.2	1.3	1.5	5.0
Through mortgage	26.8	1.5	0.0	28.3
Gender				
Male	42.6	3.7	3.8	50.1
Female	44.5	3.0	2.4	49.9

Male and female genders split conservation program participation almost evenly, with males having 50.1 percent and females 49.9 percent of the acreage in these programs.

The 1997 study shows conservation easements have been given to certain private groups on an estimated 650,000 acres of Iowa farmland and distributed with the following percentages to the specified groups: Ducks Unlimited-6.1 percent, Pheasants Forever-35.9 percent, and Other-58 percent (not specified.) The method of questioning did not reveal more information in the "other" category.

Anticipated Transfer Methods of Farmland Ownership

Farmland owners were asked about anticipated future transfer of their farmland. These transfer plans may change in response to many different factors, both economic and non-economic, and reflect situations existing at the time of the study.

The 1982, 1992, and 1997 studies all asked respondents about methods anticipated in transferring farmland. Table 6.5 shows that a 38.5 percent decrease occurred from 1992 to 1997 in expectations that farmland would be willed to family members, decreasing from 48.8 to 30 percentage points in the period involved. Expected gifts to family have increased significantly by 137 percent from 1992 and 1997. Along

with this increase, there is an increase of 78 percent from 1992 to 1997 among those who responded they expect to sell to family members. Each of these methods of transfer reveals changes that are significant at the 5 percent level. Using these same methods of transfer to individuals other than family, no such significance exists. These patterns could be tied in part to the change in the capital gain tax rate from a maximum of 28 percent to 20 percent (ten percent for those in the 15 percent tax bracket).[54]

However, when the question was asked concerning the capital gains tax reduction, 14 percent of landowners responded that they would be more likely to sell since enactment of the decrease in rates in 1997. Two and one-half percent of all respondents said it would make them less likely to sell, 77.5 percent responded saying it would have no effect, and 6 percent were unsure the impact the capital gains tax reduction would have on their willingness to sell their land.[55]

Many landowners continue to show a desire to put the land in a trust. There has been a 184 percent increase in farmland placed in trusts or expected to be placed in trusts between 1982 and 1997. The change over this period of time using trusts as a transfer method is statistically significant at the 5 percent level.

Individual owners in the "don't know" category have decreased from 14.6 percentage points in 1992 to 9.3 percentage points in 1997, a 36.3 percent decrease. The "other" category includes respondents with no plans, or expected transfer plans not in the categories already discussed.

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[54] Supra note 20, p.6.

[55] See question 30 in Appendix B.

Table 6.5 Anticipated transfer methods by percentage of farmland, 1982, 1992, and 1997.

Transfer Method	1982	1992	1997	% change '82-'97	% change '92-'97
Will to family	47.5	48.8	30.0	-36.8 *	-38.5 *
Will to others	0.4	0.5	0.2	-50.0	-60.0
Give to family	5.4	3.5	8.3	+53.7 *	+137.0 *
Give to others	0.4	0.3	0.8	+100.0	+166.0
Sell to family	12.3	7.3	13.0	+5.7	+78.0 *
Sell to others	12.5	10.0	10.6	-15.2	+6.0
Put in trust	5.8	14.4	16.5	+184.0 *	+14.6
Other	10.8	0.5	11.4	+5.6	+2180.0 *
Do not know	5.0	14.6	9.3	+86.0*	-36.3*

*Statistically significant at the 5 percent level

Age was cross-tabulated with anticipated transfer methods in Table 6.6 in order to isolate owners 65-74 years of age, and those owners 75 years of age and older. These two groups own 38.5 percent of all Iowa farmland.[56] Of this 38.5 percent, the group over 74 years of age owns 46.1 percent of the land to be transferred. The older group, 75 years old and older, anticipate willing 15.6 percent of the land they own, while the younger group, 65-74 years of age anticipate willing 18.9 percent of the land they own.

Both age groups combined anticipate transferring 34.5 percent through wills. This is a 19 percent decrease from 1992 to 1997.[57] In these two combined age groups, 12.3 percent of the land is anticipated to be, or already is, in trusts. A nearly equal percentage of older landowners, 12.3 percent, do not know how they anticipate transferring the land and 14.3 percent say they will transfer it through other means. Just

[56] See Table 4.1, p.29.

[57] See Schultz and Harl, p.66.

Table 6.6 Anticipated transfer methods by owners over 65 years of age as a percentage of all farmland owned by owners over 65 years of age, 1997

Transfer method	65-74	Over 74	Total
Will to family	18.9	15.6	34.5
Will to others	0.0	0.0	0.0
Give to family	3.7	2.3	6.0
Give to others	0.0	0.2	0.2
Sell to family	5.1	6.8	11.9
Sell to others	5.0	3.5	8.5
Put in trust	8.7	3.6	12.3
Other	5.8	8.5	14.3
Do not know	6.8	5.5	12.3

under 20.5 percent anticipate selling the land to family and others and 6.2 percent of the combined age groups anticipate transferring their land as a gift.

Summary

This chapter discusses participation in conservation programs and anticipated methods to transfer farmland. The trends are summarized as follows:

- The CRP remains a popular choice among landowners as a conservation program. Just over four percent of all Iowa farmland is enrolled in the CRP.
- 67.2 percent of farmland in CRP is debt free.
- Females own slightly more CRP farmland than males and mid-stage age group owners own 59.2 percent of the farmland in the CRP.
- Participation in other conservation programs is beginning to occur, but is at modest levels.
- In 1997, anticipated methods for farmland transfer show increased percentages of land being gifted, sold, and put in a trust compared to 1992. Land sold is

anticipated to increase by over 80 percent from the 1982 survey. The most popularly anticipated method of transfer remains the willing of land to family members with 30 percent of all farmland in this category.

- Landowners 65 years and older anticipate willing 34.5 percent, selling 23.6 percent, and putting in trusts 16.5 percent of Iowa farmland they own.
- 2.7 percent of farmland acreage is estimated to be transferred in the next 5 years.
- Transfer purposes with only one respondent each include: commercial, city, park, rock quarry, and utility.
- Three transfers frequencies are shown for highway purposes, two for wetlands or farmland preservation, and eight for residential purposes.
- 183 respondents or 28 percent reported easements or limited rights transferred on their farmland. Most frequently, utility easements were on the property (144 or 21 percent), waterways (29 or 5 percent), road and mineral right easements (13 or 2.5 percent each), and a few each in the categories of state (30 or 5 percent) miscellaneous pipelines (3) railroad (1).
- 13 respondents (or two percent) with drainage wells were identified (10 in the northcentral region).
- 28 on-farm disposal sites (or 4 percent) were reported (20 were in the south, northeast, and eastern regions).
- As reported earlier in Table 3.2, 7.8 percent of the farmland was farmed with hired help. Forty-one respondents (or 7 percent) reported labor used for livestock production.

- 76 respondents (or 12 percent) had livestock on their farmland (41 with hired labor as noted above). Of the 76 respondents with livestock, 63 or 10 percent had hogs ranging from 20-19,000 head (300 was the most common frequency with 6 respondents), 17 or 2.5 percent had cattle ranging from 30-750 head (40 was the most common frequency with 3 respondents), and dairy had 2 respondents with 30-40 cow herds being identified. No meaningful data for poultry or other livestock were available.

CHAPTER VII

LIMITED LIABILITY COMPANY LAND OWNERSHIP

Iowa has enacted restrictive legislation concerning acquisition of farmland. *Code of Iowa,* 1997, Section 9H.4 states:

> A corporation, limited liability company, or trust, other than a family farm corporation, authorized farm corporation, family farm limited liability company, authorized limited liability company, family trust, authorized trust, revocable trust, or testamentary trust shall not, either directly or indirectly, acquire or otherwise obtain or lease any agricultural land in this state (followed by exceptions).[58]

Limited liability companies were created by the Iowa General Assembly with the passage of the Iowa Limited Liability Company Act in 1992 and a law was enacted on farmland ownership by LLCs in 1993.[59] The 1993 change in the law concerning limited liability company ownership of agricultural land[60] provided for land ownership by authorized limited liability companies and family farm limited liability companies.

Section 9H.5 restricts authorized limited liability companies to owning or leasing no more than 1,500 acres, an exception also applicable to corporations and partnerships. An owner of an authorized limited liability company cannot become an owner in another authorized limited liability company, an authorized farm corporation, a beneficiary of an

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[58] *Iowa Code,* Chapter 9H.4 (1997).

[59] *Iowa Code,* Chapter 490A.100 (1997).

[60] *Iowa Code,* Chapter 9H.3A, repealed by Acts of 1993 General Assembly, ch. 39, § 37 (1993).

authorized trust, or a limited partner in a limited partnership which owns or leases agricultural land.[61]

Forty-nine LLCs were selected and analyzed in Chapter II. A number of this magnitude increases the size of the confidence interval of any analysis carried out. Having no previous LLC ownership data, a confidence interval was calculated for the entire sample as being plus or minus 8.4 percent. An analysis is carried out in several areas to provide knowledge and understanding of LLC land ownership in Iowa.

Limited Liability Company Structure

LLCs are a hybrid type of entity, resembling a corporation with respect to limited liability of the members.[62] Generally, no limits are imposed on the number of members in an LLC and any kind of entity can be a member.[63] LLCs are taxed as a partnership if so designated to the I.R.S. The taxation structure and limited liability of the members are the prominent characteristics of LLCs. Also, LLCs are more informal in organization and in operation, although member-owners must still file documents with the Secretary of State.[64]

In 1997, it is estimated that limited liability companies owned 4.7 percent of the farmland in Iowa.[65] The limited liability companies owning farmland were formed since

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[61] *Id.*

[62] Harl, N., *Agricultural Law Manual* § 7.04(2)(c) 1998.

[63] *Id.*

[64] Harl, N., *The Farm Corporation,* North Central Regional Extension Publication No. 11, October, 1998, p. 3.

[65] See supra Table 3.1.

1991, with most LLCs formed in 1996 (37 percent) and 1997 (26.5 percent). No questions were asked regarding the type of LLC formed, i.e. family farm limited liability company, or authorized limited liability company. However, respondents were asked their reasons for LLC formation with responses in four categories: 1) financing advantages, 2) to reduce business liability, 3) for tax purposes, and 4) other reasons. They were allowed to respond to each category and their responses are presented in Table 7.1.

Table 7.1 Estimated percentage of farmland owned by LLCs by specified reason of the landowner for forming the LLC, 1997

Specified reason for forming the LLC	**1997**
Financing advantages	21.4
Reduce business liability	25.9
Tax purposes	33.0
Other reasons	19.7

The highest percentage of land placed under LLC ownership was for tax purpose reasons at 33 percent. A desire to reduce business liability was cited by LLC owners for 25.9 percent of the land, financing advantages at 21.4 percent, and other reasons at 19.7 percent of the LLC owned land. The other category consisted of the following responses: recommendations by trusted individuals, ease of ownership transfer or management, reduction of personal liability, and to assure family farm operation.

Farmland under LLC ownership shown in Table 7.2 has some tenure characteristics that contrast with tenure percentages of all farmland.[66] LLC owner-operated land with and without help is 20.8 percent compared to 38.6 percent for all

[66] See supra Table 3.2 for comparison with Table 7.2.

Table 7.2 Tenure of Iowa farmland owned by LLCs as a percentage of all LLC farmland, 1997

Tenure	**1997**
Operate solely	18.3
Operate with hired labor	2.5
Cash rent lease	23.7
Crop share lease	46.0
Other renting arrangement	9.6

farmland. Cash rent leasing as a percentage of LLC owned farmland is at 23.7 percent by LLC owners compared to 34.9 percent for all landowners. LLC owners crop share 46 percent of their land. Other rental arrangements for LLC owners constitute 9.6 percent of the LLC owned land versus 2.8 percent for all landowners.

Table 7.3 depicts results of financing arrangements concerning the land owned by LLCs. Land free of debt is 57.9 percent of LLC owned land. This percentage is similar to that for all farmland free of debt at 60.1 percent. With respect to financing under contract, 3.1 percent of LLC owned land compares to 6.8 percent of all Iowa farmland. Mortgaged LLC owned farmland is 39 percent of LLC farmland with 30.5 percent of all farmland under mortgage. This difference may be a result of the limited liability status enjoyed by LLC owners.

Acreage sizes owned by LLC owners are divided into four size categories: 1) <80 acres, 2) 80-240 acres, 3) 241-600 acres, and 4) >600 acres. Acreages less than 80 acres

Table 7.3 Finance methods as a percentage of LLC land owned by LLCs, 1997.

Finance method	**1997**
Free of debt	55.2
Under contract	3.6
Through mortgage	41.2

Table 7.4 Percentage of LLC owned farmland in various sized tracts by LLC owners compared to percentage of all farmland in various sized tracts, 1997

Sizes (acres)	LLC owners, 1997	All owners, 1997
<80 acres	2.7	12.0
80-240	20.2	37.3
241-600	19.4	36.6
>600 acres	57.7	14.1

are 2.7 percent of LLC land ownership. The second category, 80-240 acres, has 20.2 percent of LLC land ownership. Acreages from 241-600 acres are 19.4 percent and acreages greater than 600 acres contain 57.7 percent of LLC owned land.

Summary

Chapter VII examines LLC land ownership patterns. The following conclusions can be drawn concerning LLC land ownership in 1997:

- LLCs provide a land ownership structure with unique tax rules and liability provisions.
- 79.3 percent of LLC owned farmland is under lease arrangements.
- 42.1 percent of LLC farmland has debt against it compared with 37.3 percent for all farmland.
- LLC owned farmland has 77.1 percent of the farmland owned in acreages greater than 240 acres.

CHAPTER VIII

SUMMARY, COMPARISONS, AND RECOMMENDATIONS

This study focused on the changes in Iowa land ownership and tenure between 1982, 1992 and 1997. The analysis included land owned by type of ownership, tenure of the land, demographics of land owners, farmland acquisition and anticipated transfer methods. The study also examined conservation programs, limited liability company land ownership, and a brief overview of animals on the land. This final chapter is a quick summary of the survey methods, reviews the major conclusions from the 1997 study, recommends avenues for future studies, and contains policy implications of the results.

Summary of the Survey Methods

Selection of survey respondents concerning land ownership and tenure was made using two different sample methods: 1) a general sample selection of all Iowa farmland owners, and 2) a sample selection of Iowa limited liability companies.

The general sample selection utilized 705 scientifically selected, 40-acre tracts randomly chosen. Legal descriptions of the selected tracts were sent to county auditors who then provided information about the owners of the agricultural land in those tracts. The same 705 sample units were surveyed in 1992. Where there were multiple owners within the same sample unit, respondents were from those who owned land within the 40-acre sample unit used for agricultural purposes. Of the 932 owners identified, 796 were eligible and 607 were interviewed for the general sample.

Respondents for the LLC sample selection were obtained from a list provided by the Secretary of State. Of the 5299 LLCs in the list, 110 were selected on the basis of

"farm" in the name of the LLC (44 of which were interviewed) and five were transferred from the general sample selection list giving 49 respondents to analyze.

General Conclusions

Four general conclusions are made regarding farmland ownership and tenure in Iowa using the 1997 study. First, the structure of land ownership is very dynamic as land turnover increases and different ownership structures are utilized by new owners. Second, tenure of farmland continues a rapid shift toward tenant or agent control of production agriculture and diminished owner involvement. Third, age, gender, and other important owner characteristics reflect ownership adjustments to strong forces in the farmland market, which may also affect future transfer of the farmland. Lastly, the importance of farmland for other potential uses is increasing, creating new or multiple uses of the land.

Structural ownership changes may be evidence that regulations concerning farmland may be influential. With the restrictions on corporate ownership, the inflexibility of the corporate structure and possibly for other reasons, corporate ownership continues to decrease. At the same time, limited liability company ownership has increased dramatically. LLC formation is a result of financial advantages, reduced business liability, tax and other reasons.

The percentage of leased farmland continues to increase. For various reasons, farmland under tenant operation exceeds 60 percent. This has led to reduced owner participation and increased use of professional farm managers. Decisions by landowners concerning management of their farmland are apparently decreasing. Simultaneously, land ownership by non-residents of Iowa who lease land is increasing. A final important

factor analyzed concerns length of tenant's tenure. This aspect merits attention in future research in this area.

Age characteristics continue recent trends. Older landowners continue to dominate land ownership although this appears to be an area of some adjustment since 1992. More land can be expected to come onto the market as owners, 65 years and older, transfer the 40 percent of farmland they now own. The percentage of land ownership by younger owners continues to decline. Female land ownership remains high, but experienced a decrease from 1992 to 1997 as do the occupations of landowners dominated by females.

Continued environmental concerns have supported the expansion of federal conservation programs by legislative action and landowners continue to show a willingness to participate in such programs. Additionally, other governmental and private organizations have provided avenues to landowners to protect farmland, improve wetlands, or other wildlife habitat. There is evidence that such programs and activities have increased through the partial interest transfers of farmland to farmland preservation, wetland restoration and preservation, and wildlife preservation groups.

Major Policy Implications

Cash rent lease arrangements have increased 65.4 percent from 1982 to 1997. With more land under lease, young farmers may have an opportunity to begin a career in agriculture; however, diminished crop share rent will increase the pressure on young farmers to borrow in order to operate. This may reduce the probability of land entering young farmer's hands and increase the concentration of farmland control in financially established hands. Landowners are demonstrating less willingness to participate in the

risks and rewards of share rent arrangements. Also, professional farm managers can reduce direct involvement associated with farmland ownership. Increased cash renting can extend the physical distance of the farmland owner from practices which are taking place on his or her land.

At the same time cash rental agreement use is rising, the percentage of land which is owner-operated is falling, declining 43.1 percent from 54.1 to 30.8 percentage points over the 1982-1997 period. A part of this decline may be that family farm operations are expanding with and without the addition of employees. The loss of owner-operated land may affect purchasing habits of these owner-operated owners and the communities in which they live. The owner-operated farmland statistic is closely tied to the increasing age of the landowners.

Trust ownership of land has increased from 0.8 to 7.4 percentage points from 1982-1997, an 825 percent increase. Additionally, the percentage of farmland owners who anticipate transferring through trusts has increased 184 percent in the same period. The reasons for increased trust usage are numerous Death tax consequences can be altered for the owner through the use of a trust. Owners may desire to skip a generation through trust use instead of using wills or gifts. Retirement needs may also be meet through the use of trusts. Estate settlement may be simplified through the use of the living trust.

Limited liability companies have increased ownership of farmland to 4.7 percent in the five years of 1992 to 1997. Tax and liability issues, as the more prominent reasons for the popularity of LLCs, were discussed in the body of the study. Family-owned farmland does not fall under the acreage prohibitions contained in Chapter 9H of the

Code of Iowa and imposed on corporations, limited partnerships, LLCs, and trusts. With the LLC, liability can be reduced without the rigid control and rules under which a corporation must operate. Reduced liability and ease of management of the structure have contributed to its popularity. Conversely, corporate farmland ownership's decline from 8.0 to 5.3 percentage points, a 33.7 percent decrease from 1982 to 1997, implies this structure is not the favored choice of farmland owners to the degree it was before 1982. It implies there are fewer landowners who consider incorporation, preferring instead LLC or LLP ownership structures.

Debt-free land is two percentage points lower in 1997 at 59.8 percentage points as compared to 61.8 percentage points in 1982. However, this level is 14.1 percent lower than in 1992. Because a high percentage of land has recently been transferred, a significant portion of this debt may be highly leveraged. Favorable commodity prices in the 1992-1997 period may have encouraged purchase and reduced the perceived risk of land debt. Increasing land prices may have increased the purchase of farmland by speculators, as well. Double digit percentage returns to land coupled with reasonable interest rates and the FAIR Act of 1996 program payments made land acquisition desirable. Falling commodity prices since 1997 have called these assumptions into question.

Age issues connected with farmland ownership continue to pose some of the most challenging questions to policy makers. Owners, 55 years and older, own 66.4 percent of the farmland in Iowa. Within the next 15-25 years, much of this land will be transferred. This study shows more than one half of farmland will be transferred through wills and trusts. Roughly 75 percent of leased land is owned by this group. Tenancy will continue

to increase with older land ownership. As farmland changes hands, methods and approaches to farming practices may also be impacted. Iowa will likely follow the national pattern where a substantial proportion of older landowners rent out their land after the death of their spouses.

Another major change in land ownership is in the area of landowner's education level. In 1982, the percentage ownership of Iowa farmland by owners without a high school diploma was 16.5 percent. The 1997 study estimated the same figure at 3.2 percent, an 80.6 percent decrease over the 1982-1997 period. Education levels of landowners are increasing at every level of education above those holding a high school diploma. Increased use of biotechnology, more formal ownership structures, and environmental concerns will be high awareness issues for landowners affecting the future of Iowa farmland.

Ownership of acreages greater than 240 acres has increased dramatically in the 1982-1997 period. These acreage sizes now account for over 50 percent of the farmland ownership. Acreage size from 241-600 acres is 36.6 percent of all farmland, up from 16.5 percent in 1982, a 121 percent increase. Acreages greater than 600 acres are at 13.9 percent in 1997, up from 5.3 percent in 1982, a 162 percent increase. Turnover of farmland makes possible ownership consolidation. Farmland ownership concentration appears to be following similar trends in other areas of the economy. The traditional family farm is experiencing many adjustments as these trends continue.

Ownership of Iowa farmland by non-residents of Iowa continues to increase. From 1982 to 1997, non-resident ownership increased 115 percent, 6.4 percent in 1982 to 13.8 percent in 1997. Most non-residents own farmland through co-ownership, trusts,

partnerships, corporations, or limited liability companies. Few non-residents appear to make use of the traditional ownership types: sole and joint ownership (husband and wife). Over 20 percent of leased land is owned by owners who are not residents of Iowa.

The Conservation Reserve Program involves a ten year enrollment period. The mid-stage age group has 59.2 percent of the participation in the CRP with slightly more female participation than participation by males. Participation by debt-free farmland owners remained steady from 1992 to 1997, although the percentage of debt-free land overall has fallen in this period. CRP participation as a percentage of farmland ownership is highest for owners structured in partnerships, trusts, and limited liability companies.

Recommendations for Future Research

The 1997 study has produced insights into changes that should be considered in future studies. First, a clearer delineation of ownership types is needed to ensure proper evaluation of ownership structure and evolving patterns. An example of such a change would be the separation of all joint ownership from tenants in common; however, continuity considerations are important. Any changes should be made with this factor in mind. Second, more detailed questioning of leasing practices is justified as the number of acres leased increases. Leasing of agricultural land, for non-agricultural purposes has been one-half of one percent of all leased farmland, but many aspects of agricultural leasing, easements, and other partial transfers of farmland rights need expansion in future research. Questions concerning lease length, conditions, and specific arrangements (ie. a combined category which could include owners who both cash rent and crop share) would provide greater insight into this economically important practice. Greater

refinement of questions concerning the number of tenants and length of tenancy is important if the landlord/tenant relationship is to be fully understood. A final area would be increased questioning concerning transfer of farmland, in the area of easements and trusts. Trust ownership questions need to be broadened to gain additional information as their use expands. Also, continued surveillance over changing ownership patterns by corporations, LLCs and other types of entities is warranted. Following are questions needing revision and comments to further that goal:

-Q4 Reduce the number of parcels to 5.

-Q9 Re-specify so labor and acreage can be brought together for evaluation.

-Q11 Ask questions about owner involvement so they are mutually exclusive.

-Q12 Ask length of lease for the contract in use and the nature (verbal or formal) of the lease.

-Q21 Ask about the acreage used for livestock production.

-Q22 Ask about the acreage they occupy or affect.

-Q24 Ask about the acreage involved with these rights.

-Q27 Use the same categories as used for ownership types in the screening of respondents, so the nature of owners selling farmland is more definitely known.

-Q34 Review occupation codes used.

Adding to the size of the general sample has the potential to change the outcome of the study, but may provide greater accuracy if all ownership types are adequately represented in the sample. The weightings used in this study are important to its outcome and accuracy. These weightings are affected when two different samples are used.

APPENDIX A

WEIGHTING FOR 1997 IOWA LAND OWNERSHIP STUDY

1. Background

For purposes of sampling and weighting in this study, the agricultural lands in the state of Iowa can be visualized as being partitioned into (not necessarily contiguous) parcels, each owned by a specific person or group of persons. We have sampled 40-acre tracts of land and determined ownership for each selected tract. A particular tract is made up of segments with different owners and/or ownership patterns. In many cases, the tract consists of a single 40-acre segment. We have attempted to contact owners within every segment in each selected tract.

If a segment has multiple owners, there are two possibilities:

1. The list of owners is obtained from a source other than one of the owners (e.g., a bank). In this case, we select one of the owners at random.
2. The list of owners is obtained from one of the owners. In this case we interviewed the owner already on the phone (the one from whom we obtained the list of owners) and then selected one of the owners at random. If the randomly selected owner was the owner already on the phone, no further interviewing was required, and the interviewee represented all of the owners. Otherwise, the owner already interviewed represented himself/herself and the randomly selected owner represented the remaining owners.

The 1992 Census of Agriculture was used to provide control information on farmland acreages by region. Though these numbers are somewhat outdated, the acreages are not expected to vary much with time. The effect of errors here should not be large because most tables of interest involve ratios (i.e., percentages) within regions, so the regional total farmland acreages will be equivalent to the total state acreage.

To replicate what was done, go to **http://www.nass.usda.gov/census/;** 1992 Census of Agriculture, online. Find the 1992 AG CENSUS and then STATE AND COUNTY HIGHLIGHTS DATA. Obtain 1992 acres in farms by county for the state of Iowa. Compute total farmland acres, A_h, by region ($h = 1,\ldots,7$). Let $A = \sum_{h=1}^{7} Ah$

Check that the total number of acres in Iowa, A=31,346,565.

2. Initial weights

2.1 Area Sample

Form initial weights for parcel i in region h. Parcel i is identified by its five-digit case ID in columns 2-6 of card 1 (first four digits of the case ID denote the tract, fifth digit indicates segment within the tract.) Let n_h denote the number of responding parcels in region h and let a_{hi} denote the number of acres in parcel i, region h, coded in card 1, columns 29-33. If a_{hi} is missing, then the initial weight for parcel i is 0. Otherwise, the initial weight for parcel i is:

$$w_{hi} = \frac{A_h/40}{n_h a_{hi}/40}$$

$$= \frac{\#40\text{-acre tracts in region } h}{n_h(\#40\text{-acre tracts in parcel } i)}$$

Check that $\sum_{i \in region h} w_{hi} a_{hi} = A_h$ (for all i in region h)

2.2 List Sample

At this point it appeared that the LLP information was not useful, because most of the sample units were LPs, not LLPs. The LLPs selected were dropped in the list frame from further consideration. That is, drop any record for which card 1, column 6 is 0 (indicating LLP or LLC) and card 1, columns 20-21 is not 09 (LLC).

LLCs were selected from a list frame split into two categories: 276 LLCs that looked very likely to be agricultural ("certainty LLCs") and 5023 that were not obviously agricultural ("noncertainty LLCs"). This information is coded in the case ID's (card 1 columns 2-6): five digit case ID's beginning with a 5 are certainty LLCs.

The initial weight for any LLC i from the list sample is then $w_{oi} = 5023/$ (number of responding noncertainty LLCs) for the noncertainty LLCs, and $w_{oi} = 276/$(number of responding certainty LLCs) for the certainty LLCs.

An adjustment is then made for LLCs picked up in the general sample selection. These include case ID's 13022, 14121 and 14551. The probability of selection is $p_{hi=}\ 1 - (1 - w_{hi}^{-1})$ [1 – (number of responding noncertainty LLCs)/5023], for the noncertainty parcels, and

$p_{hi} = 1 - (1 - w_{hi}^{-1})$ [1 – (number of responding certainty LLCs)/276], for the certainty parcels, where w_{hi} is the area frame weight. The adjusted weight for these parcels is then

$$w_{hi} = 1/p_{hi}.$$

Set region equal to zero for the two LLCs (14131 and 14551) picked up in the area sample. Estimate total acres in the state for LLCs via

$$T_{LLC} = \sum_{i \in LLClist} w_{oi}a_{oi}. \text{ (for all } i \text{ in LLC list)}$$

3 Final weights

3.1 Area sample

Reduce total acres in farms for the state by estimated acres in LLCs, in proportion to size of region:

$$A^*_h = \frac{A - T_{LLC}}{A} (A_h)$$

Check that $\sum^7_{h=1} A^*_h + T_{LLC} = A$.

If a_{hi} is missing, then the weight for parcel I is 0. Otherwise, the weight for parcel i is:

$$w^*_{hi} = \frac{A^*_h/40}{n_h a_{hi}/40}$$

Check that

$$\sum_{i \in regionh} w^*_{hi}a_{hi} = A^*_h. \text{ (for all } i \text{ in region } h)$$

3.2 LLC sample

Final weights for LLCs in the LLC sample and the two LLCs picked up in the area but moved to the list sample are

$$w^*_{oi} = \frac{T_{LLC}}{\sum_i w_{oi}a_{oi}} \qquad (w_{oi}).$$

Check that

$$\sum_i w^*_{oi}a_{oi} = T_{LLC}$$

3.3 Owner weights

Finally, for weights w_{hij} for owner $j = 1,2,3$, in parcel i of region h. let m_{hi} denote the number of owners of parcel i in region h. This information is coded in card 1, columns 22-24. Determine the number and type of interviews conducted.

Case A: Sole owner or single interview. Demographics in columns 67-77 of card 3 are available, but demographics in columns 78-86 of card 3 and columns 87-79 of card 3 will be missing (coded as 8s).

Case B: Husband/wife. Demographics in column 67-77 of card 3 and demographics in columns 78-86 of card 3 are available, but demographics in columns 87-97 of card 3 will be missing (coded as 8s).

Case C: Additional owner selected. Demographics in columns 67-77 of card 3 and demographics in columns 87-97 of card 3 are available, but demographics in columns 78-86 of card 3 will be missing (coded as 8s).

Then

$$w_{hi1} = \begin{cases} w^*_{hi}, & \text{if case=A,} \\ 1/2w^*_{hi}, & \text{if case=B,} \\ 1/mhi(w^*_{hi}, & \text{if case=C;} \end{cases}$$

$$w_{hi2} = \begin{cases} 1/2w^*_{hi}, & \text{if case=B,} \\ 0, & \text{otherwise;} \end{cases}$$

$$w_{hi3} = \begin{cases} \underline{m_{hi}-1}/\, m_{hi}(w^*_{hi}), & \text{if case=C,} \\ 0, & \text{otherwise.} \end{cases}$$

3.4 Tabulation data set

Estimates for any table of interest were computed in SAS. There will be one record for each owner. All characteristics of the land are repeated once for each owner and acres in the parcel appear in the record for each owner.

APPENDIX B

GENERAL SAMPLE QESTIONNAIRE

Type of Ownership

01 = Sole owner
02 = Joint Tenancy (husband & wife)
03 = Tenancy in Common
04 = Partnership
05 = Life Estate
06 = Unsettled Estate
07 = Trust
08 = Corporation
09 = LLC
10 = LLP

Case ID:_____

Int. ID:__ __

Date __ __ / __ __ / __ __

Start time: __ __ : __ __

1. In the first part of this interview I would like you to think of all **the Iowa farmland you owned as a (type of ownership) (with name/s) as of July 1, 1997. Do not include land owned in another manner. Please include land mortgaged, and land being purchased on contract, as well as any land owned free of debt. As of July 1, 1997 how many acres of Iowa farmland did you own as a (type of ownership) (with name/s)?**

__ __ __ __ __ Acres

2. Of these acres ...

a. how many are fully paid for? __ __ __ __ __ Acres

b. how many are being bought under purchase contract or contract for deed? Do not include mortgaged land. __ __ __ __ __ Acres

c. how many are mortgaged? __ __ __ __ __ Acres

d. how many are owned under other financial arrangements? __ __ __ __ __ Acres

↓

e. What is the other type of arrangement?

_____

(Specify)

__ __ __ __ __ Total Acres

[IF TOTAL ACRES DO NOT MATCH Q.1, RECTIFY ERROR]

3. How many acres of this land were …

a. purchased? __ __ __ __ __ Acres
b. received as a gift from a person living at the time of transfer? __ __ __ __ __ Acres
c. inherited? __ __ __ __ __ Acres
d. obtained in some other way? __ __ __ __ __ Acres

(Specify) _____

__ __ __ __ __ Total Acres

[IF TOTAL IN Q.3 DOES NOT MATCH Q.1, RECTIFY ERROR]

4. Next, we would like you to think about how long you have owned this land as a (type of ownership). Please try to recall when you acquired the (first/next) land you owned in this manner.

a. How many acres was that?
b. In what year was that land acquired by (you/you and (names))?
c. Were these acres acquired from a farm operator?

[REPEAT UNTIL TOTAL ACRES ARE ACCOUNTED FOR]

(a) # Acquired Acres	(b) Year	(c) Yes, Farm Operator	(c) No, Not Farm Operator
1st __ __ __ __ __	19 __ __	1	2
2nd __ __ __ __ __	19 __ __	1	2
3rd __ __ __ __ __	19 __ __	1	2
4th __ __ __ __ __	19 __ __	1	2
5th __ __ __ __ __	19 __ __	1	2

[IF CORPORATION, LLC OR LLP, ASK Q.5. ALL OTHERS GO TO Q.6]

5. a. In what year did you form your (corporation/LLC/LLP)? 19 __

__

Why did you decide to form a (corporation/LLC/LLP)? Was it ...

		Yes	No
b.	because of financing advantages?	1	2
c.	to reduce business liability?	1	2
d.	for tax purposes?	1	2
e.	for any other reason?	1	2

_____

(Specify)

6. a. Are you a U.S. citizen?

1 = Yes
2 = No

b. Are you living in Iowa?

1 = Yes
2 = No ——> c. What state are you living in? _____

State/Countr
y

d. Are you a legal resident of Iowa?

1 = Yes
2 = No ——> e. What is your legal residence? _____

State/Countr
y

[IF SOLE OWNERSHIP, GO TO Q8]

7. a. Are all the other owners of this land U.S. citizens?

1 = Yes
2 = No

b. Are all the other owners living in Iowa?

1 = Yes
2 = No ——> c. What state(s) do they live in?

_____

d. Are all the other owners legal residents of Iowa?

1 = Yes
2 = No ——> e. Where is their legal residence?

8. a. In 1997, was any of the land you own as a (type of ownership) being operated by you or your spouse (or any of the other owners)? Include land in the CRP.

1 = Yes
2 = No **[GO TO Q.10]**

b. How many of these acres did you, (your spouse, or any other owners) operate without using hired labor?

__ __ __ __ __ Acres **[IF ALL, GO TO Q15]**

9. a. In 1997, did you have hired laborers who worked in this operation, but were under your direct supervision?

1 = Yes ——> b. On how many acres? __ __ __ __ __

2 = No c. How many laborers did you have? __ __ __ # laborers

d. Was any hired labor used for livestock production?

1 = Yes
2 = No

10. a. In 1997, was any of the land you own as a (type of ownership) rented out to others either on a share basis or for cash?

1 = Yes
2 = No **[GO TO Q15]**

b. How many of these acres were rented out in 1997?

__ __ __ __ __ Acres rented

c. How many acres were . . .

for cash rent? __ __ __ __ __ Acres

on crop share? __ __ __ __ __ Acres

on live stock share? __ __ __ __ __ Acres

under some other arrangement? __ __ __ __ __ Acres

↓

What was this other arrangement?

(Specify) _____

[TOTAL ACRES IN 8b + 9b + 10b SHOULD EQUAL TOTAL ACRES IN Q.1]

11. We are interested in the level of involvement you may have had in the use of this land that you rented out in 1997.

		Yes	No	Do Together
a.	Did you decide which crops to plant?	1	2	3
b.	Did you select the seed varieties used?	1	2	3
c.	Did you decide the fertilizer levels that were used?	1	2	3
d.	Did you decide which chemical use practices to follow?	1	2	3

12. How many years has your current tenant farmed this land?

__ __ years

13. How many of the acres you owned in this manner and rented out, were handled by a professional farm management service?

__ __ __ __ __ Acres

14. How many of these acres rented out in 1997 were under ...

a. a material participation share lease, which means you participated substantially in the farm operation? Under this type of arrangement you would have had to pay self-employment tax, also called Social Security tax.

__ __ __ __ __ Acres

b. a nonmaterial participation share lease, which means you did not participate substantially in the farm operation and the operation is treated as an investment? Therefore, you did not pay self-employment tax, also called Social Security tax.

__ __ __ __ __ Acres

15. a. Are any of the acres you own as a (type of ownership) enrolled in the CRP, Conservation Reserve Program?

1 = Yes
2 = No **[GO TO Q.16]**

b. How many acres are currently in the CRP?

__ __ __ __ __ Acres

c. In what year did you enroll these acres?

1 9 __ __ **[GO TO Q.17]**

16. a. Has any of the land you own in this manner ever been in the CRP program?

1 = Yes
2 = No **[GO TO Q.17]**

b. How many acres was that?

__ __ __ __ __ Acres

17. a. Are any of the acres you own as a (type of ownership) currently enrolled in the Wetlands Reserve Program (WRP)?

1 = Yes
2 = No **[GO TO Q.18]**

b. How many acres are currently in the WRP?

__ __ __ __ __ Acres

c. In what year did you enroll these acres?

1 9 __ __

18. a. Is any of the land you own as a (type of ownership) enrolled in the Environmental Quality Incentive Programs, or EQUIP?

1 = Yes ⟶ b. How many acres? __ __ __ __ __ Acres
2 = No

19. ***Question deleted.***

20. a. As of July 1, 1997, was any of the land you owned as a (type of ownership) being used for confinement livestock production?

1 = Yes
2 = No **[GO TO Q.22]**

b. How many acres were used for confinement livestock production?

__ __ __ __ __ Acres

21. As of July 1, 1997, did you have confinement . . .

		Yes	No	If Yes:	How Many?
a.	hogs?	1	2	→	_____
b.	cattle?	1	2	→	_____
c.	dairy cows?	1	2	→	_____
d.	poultry?	1	2	→	_____
e.	livestock of any other kind?	1	2	→	_____

22. Thinking once again of all the Iowa farmland that you own as a (type of ownership). . .

		Yes	No
a.	are there any drainage wells on this land?	1	2
b.	are there any disposal sites on this land where any unwanted items such as paint or chemical containers, or unwanted cars or farm equipment are discarded?	1	2

23. a. Do you think any of the land you own as a (type of ownership), that is being used for agricultural purposes, will be transferred to another use within the next 5 years?

1 = Yes
2 = No **[GO TO Q.24]**

b. About how many acres will be transferred to another use?

__ __ __ __ __ Acres

c. To what new use will this agricultural land be transferred?

_____

24. a. Sometimes people have transferred certain rights associated with their land to others. These rights are for nonagricultural uses such as mineral rights, electrical power lines, or pipelines. Transfers like this may be in the form of deed, lease, easement or option. Have any of the rights on this farmland been transferred to others?

1 = Yes
2 = No **[GO TO Q.25]**

Have (type of rights) been transferred?

		Yes	No
b.	mineral rights	1	2
c.	utility easements or options	1	2
d.	other rights	1	2

_____
(Specify)

25. Have any of the property rights on the land you own as a (type of ownership) been placed in any of the following conservation easement programs?. . .

		Yes	No
a.	American Farmland Trust?	1	2
b.	Conservation League?	1	2
c.	Ducks Unlimited?	1	2
d.	Pheasants Forever?	1	2
e.	Any other conservation easement programs?	1	2

Specify: _____

[IF NO TO ALL, GO TO Q.26]

f. How many acres does this involve?
__ __ __ __ __ Acres

g. What year were they enrolled?
1 9 __ __

26. Thinking of the land you own as a (type of ownership), as of July 1, 1997, how many of the acres were being leased for

a. agricultural purposes, including farmsteads? _____ acres
b. industrial or commercial purposes? _____ acres
c. recreational purposes? _____ acres
d. some other purpose? _____ acres

↓

What purpose? _____

The next questions relate to all of the acres you own as a (type of ownership).

27. We would like you to think about who owned this land before you acquired it. How many acres were acquired from ...

a. a sole owner or the estate of a sole owner? _____ acres
b. a trust? _____ acres
c. a corporation? _____ acres
d. a government like a city, state, etc.? _____ acres
e. an institution? _____ acres
f. co-owners? _____ acres

[IF NONE IN f, GO TO Q.28]

g. Was any of this co-owned land owned by a partnership?

1 = Yes → h. How many acres? _____
2 = No ↓

i. Was it ...
1 = a limited liability partnership,
2 = a limited partnership, or
3 = a general partnership?

[ACRES IN (a) - (f) SHOULD TOTAL Q.1]

28. Next, we would like you to think about how you anticipate transferring the ownership of this land. Even though we know that these plans may change in the future, we would like you to let us know how you currently expect to transfer the land.

	Do you expect to . . .	YES	NO
a.	will any of it to a family member?	1	2
b.	will any of it to others?	1	2
c.	give any of it to a family member?	1	2
d.	give any of it to others?	1	2
e.	sell any of it to a family member?	1	2
f.	sell any of it to others?	1	2
g.	put any of it in a living trust?	1	2
h.	put any of it in a testamentary trust?	1	2
i.	do anything else? (specify_____)	1	2

29. a. On July 1, 1997, did you (or any of the other owners) live on any land you owned as a (type of ownership)?

1 = Yes **[GO TO Q.30]**
2 = No

b. Did you live on any other farmland you or your spouse own?

1 = Yes
2 = No

30. a. On August 5, 1997, (effective for sales after May 6, 1997) there was a change in the law in taxation of capital gains that reduces the tax rate on long term capital gains. How does this change in the law affect any decision you might make to sell agricultural acres? Would you say. . .

1 = you would be more likely to sell,
2 = you would be less likely to sell, or

3 = the change in the law has no effect on whether or not you will sell agricultural acres?

9 = DON'T KNOW

In this final portion of the interview, we would like some general information about (you/name of landowner).

31. CODE SEX.

1 = Male
2 = Female

32. Are you ...

1 = Married,
2 = Separated,
3 = Divorced,
4 = Widowed, or
5 = have you never been married?

33. What is your date of birth?

_____ / _____ / _____
MO DAY YR

34. What has been your principal (main) occupation most of your adult life?

_____
[PROBE FOR SPECIFIC DUTIES]

35a. Are you currently . . .

1 = employed, including operating a farm,
2 = unemployed,
3 = retired,
4 = disabled, or
5 = a homemaker?

[IF FEMALE RESPONDENT, ASK:]

b. Have you ever been involved with the farming operation by doing chores, helping with planting or harvesting, keeping books, or any other activities?

1 = Yes
2 = No

36. What is the highest grade of regular school you have completed? Include any college, vocational, or technical training.

__ __ grade

12 = High School (includes GED)
16 = B.S., B.A., etc.
18 = M.S., M.A.
20 = Ph.D., M.D., J.D., etc.

IF SPOUSE SHARES OWNERSHIP, ASK Q.37-42.
IF ADDITIONAL OWNER SELECTED FOR DEMOGRAPHICS, ASK Q.37-42.
IF NO SPOUSE OR NO ADDITIONAL OWNER SELECTED, GO TO CLOSING.

Now, I have a few similar questions about (name).

[IF RESPONDENT UNABLE TO ANSWER Q.37-42, GO TO Q.43]

37. CODE SEX. ASK IF UNSURE, Is (name) male or female?

1 = Male
2 = Female

38. ASK IF UNSURE. Is he/she ...

1 = Married,
2 = Separated,
3 = Divorced,
4 = Widowed, or
5 = has he/she never been married?

39. What is (name's) birth date?

__ __ / __ __ / __ __
Mo Day Yr

40. What has been (name's) principal (main) occupation most of his/her adult life?

[PROBE FOR SPECIFIC DUTIES]

41. a. Is he/she currently . . .

1 = employed, including operating a farm

2 = unemployed,
3 = retired,
4 = disabled, or
5 = a homemaker?

[IF (NAME) IS FEMALE, ASK:]

b. Has (name) ever been involved with the farming operation by doing chores, helping with planting or harvesting, keeping books, or any other activities?

1 = Yes
2 = No

42. What is the highest grade of regular school he/she has completed? Include any college, vocational or technical training.

__ __ years

12 = High school (includes GED)
16 = B.S., B.A., etc.,
18 = MS, M.A.,
20 = Ph.D., M.D., J.D., etc.

[GO TO CLOSING]

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43. Could you please give me (name's) last name, his/her address and telephone number? Then we can contact him/her about the study. [VERIFY SPELLING]

First Name _____ Last Name _____

Street Address _____

City _____ State _____ Zip _____

(___ ___ ___) ___ ___ ___ - ___ ___ ___ ___
Area Code

CLOSING:

This completes the interview. Is there anything you would like to tell us about the ownership of farmland that may be helpful to our project?

_____

_____

Thank you for talking with me. Iowa State University appreciates your interest in our study.

END TIME: __ __ : __ __ Am / Pm

APPENDIX C

REGIONAL AND OTHER TABLES

Table C.1 Percentage of farmland owned in each ownership type, 1997 regional data

Ownership type	STATE	NW	SW	N	NC	S	NE	E
Sole owners	31.2	4.0	4.3	1.9	5.1	5.5	5.1	5.3
Joint tenancy	39.0	4.5	4.0	2.3	3.8	6.9	6.9	10.5
Other co-owners	5.6	0.9	0.8	0.5	0.5	0.7	0.6	1.7
Partnerships	4.0	0.0	0.3	0.5	0.6	0.3	0.7	1.5
Estates	2.7	0.5	0.5	0.3	0.5	0.2	0.3	0.5
Trusts	7.4	1.1	1.4	1.5	0.7	1.2	0.7	0.8
Corporations	5.3	0.2	0.3	0.3	1.6	0.8	0.6	1.5
Limited Liability Company	4.7	0.1	1.0	0.4	1.1	0.4	0.5	1.2

Table C.2 Percentage of all farmland owned by tenure, 1997 regional data

Tenure	STATE	NW	SW	N	NC	S	NE	E
Operate solely	30.8	4.5	4.2	1.1	2.8	5.9	5.2	7.1
Operate w/help	7.8	0.9	0.8	0.3	1.7	2.3	0.7	1.2
Cash rent	34.9	3.6	2.1	3.3	4.6	3.4	6.5	11.4
Crop share	23.7	2.5	5.6	3.0	3.8	3.2	2.7	3.0
Other renting	2.8	0.0	0.0	0.0	0.8	1.3	0.3	0.4

Table C.3 Percentage of farmland managed by a professional farm manager, 1997 regional data

Owners	NW	SW	N	NC	S	NE	E
All owners	11.4	12.6	7.6	13.9	16.0	15.4	23.1
Non-corporate owners	10.0	11.3	7.3	12.8	15.4	15.0	22.4
Corporate owners	1.4	1.3	0.3	1.1	0.6	0.4	0.7

Table C.4 Percentage of farmland owned by landlords with non-material participation, 1997 regional data

Owner	STATE	NW	SW	N	NC	S	NE	E
All owners	4.6	0.3	1.6	0.8	2.0	0.5	1.1	1.5
Non-corporate owners	4.15	0.2	1.5	0.9	2.1	0.4	1.1	1.5
Corporate owners	0.005	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table C.5 Percentage of farmland by financing method, non-corporate owners, 1997 regional data

Financing method	STATE	NW	SW	N	NC	S	NE	E
Free and clear	59.8	7.0	7.2	5.1	9.4	7.9	9.3	13.8
Under contract	9.5	0.8	1.3	0.4	0.9	1.4	1.4	3.2
Through mortgage	30.7	3.6	4.1	2.1	3.7	6.6	4.6	6.0

Table C.6 Percentage of farmland by size of owned acreages , all landowners, 1997 regional data.

Size of acreage	STATE	NW	SW	N	NC	S	NE	E
< 80 acres	12.0	1.1	0.5	0.5	0.9	0.9	1.4	2.6
80-240 acres	37.9	6.6	4.4	2.7	7.1	4.4	5.6	11.0
241-600 acres	36.6	3.2	4.6	3.6	4.4	6.7	6.9	7.1
> 600 acres	13.9	0.6	3.1	0.8	1.5	4.0	1.5	2.4

Table C. 7 Age cross-tabulated with size of acreage, as a percentage of all farmland, 1997

Size of acreage	<25	25-34	35-44	45-54	55-64	65-74	>75
<80 acres	0.2	0.2	2.0	2.0	2.0	3.5	2.1
80-240 acres	0.3	1.3	3.9	7.1	7.9	8.7	8.3
241-600 acres	0.2	0.7	4.6	5.9	8.7	9.3	7.3
> 600acres	0.4	0.1	1.9	2.7	4.9	1.7	2.1

Table C.8 Age cross-tabulated with tenure, as a percentage of all farmland, 1997

Tenure	<25	25-34	35-44	45-54	55-64	65-74	>75
Operate Solely	0.4	1.4	6.3	7.2	7.6	5.1	2.7
Operate w/help	0.1	0.1	2.1	2.0	2.2	0.9	0.5
Cash rent	0.0	0.5	2.0	5.1	8.0	9.6	9.6
Crop share	0.4	0.2	2.1	3.1	5.0	6.4	6.5
Other renting	0.2	0.1	0.0	0.2	0.8	1.1	0.5

Table C.9 Age cross-tabulated with financing methods as a percentage of all farmland, 1997

Financing methods	**<25**	**25-34**	**35-44**	**45-54**	**55-64**	**65-74**	**>75**
Free and clear	0.7	0.2	4.3	6.8	13.2	17.4	17.2
Under contract	0.0	0.6	3.0	2.8	1.8	1.1	0.2
Through mortgage	0.5	1.5	5.2	8.0	8.5	4.6	2.4
TOTAL	1.2	2.3	12.5	17.6	23.5	23.1	19.8

Table C.10 Age cross-tabulated with the highest educational level obtained, as a percentage of all farmland, 1997

Education	**<25**	**25-34**	**35-44**	**45-54**	**55-64**	**65-74**	**>75**
Graduate work	0.1	0.0	0.8	2.7	3.3	0.8	0.8
Bachelors degree	0.2	0.8	2.6	5.1	4.1	1.8	2.4
Some college	0.6	0.8	4.4	5.2	5.3	4.6	3.0
High school graduate	0.1	1.0	5.5	5.9	11.7	13.7	9.3
Did not complete high school	0.2	0.0	0.2	0.2	0.6	0.9	1.1

Table C. 11 Age cross-tabulated with gender as a percentage of all farmland, 1982, 1992, and 1997

Gender 1982	**<25**	**25-34**	**35-44**	**45-54**	**55-64**	**65-74**	**>75**
Male	0.6	6.1	8.3	13.1	11.4	8.1	6.1
Female	0.8	4.2	5.7	9.9	10.9	8.7	6.2
Gender 1992							
Male	0.6	3.2	5.9	10.8	11.8	10.8	8.0
Female	0.0	2.8	4.8	7.7	9.4	12.7	10.8
Gender 1997							
Male	0.8	1.7	7.9	10.2	13.9	11.6	7.5
Female	0.3	0.7	4.3	7.5	13.7	7.6	12.0

Table C.12 Land acquisition methods, as a percentage of all farmland for all landowners, 1997 regional data

Acquisition method	**State**	**NW**	**SW**	**N**	**NC**	**S**	**NE**	**E**
Purchased	61.9	6.0	5.9	3.5	6.8	12.8	11.8	15.1
Inherited	3.2	0.5	0.5	0.2	0.8	0.2	0.5	0.5
Gift	34.6	4.9	6.1	3.9	6.2	3.0	3.1	7.4

Table C.13 Age cross-tabulated with anticipated transfer method, as a percentage of all farmland, 1997

Transfer method	**<25**	**25-34**	**35-44**	**45-54**	**55-64**	**65-74**	**<75**
Will to family	0.3	0.6	2.5	4.9	6.7	8.2	6.7
Will to other	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Give to family	0.1	0.3	1.5	1.5	2.3	1.6	1.0
Give to other	0.1	0.0	0.0	0.2	0.4	0.0	0.1
Sell to family	0.0	0.2	2.1	2.8	2.8	2.2	2.8
Sell to other	0.1	0.3	1.9	2.9	1.9	2.0	1.4
Put in Trust	0.2	0.4	1.5	2.5	2.9	3.0	1.0
Other/don't know	0.4	0.5	2.9	2.8	6.3	6.1	6.6

Table C. 14 Age cross-tabulated with the various conservation programs, 1997

Conservation program	**<25**	**25-34**	**35-44**	**45-54**	**55-64**	**65-74**	**<74**
CRP	1.3	1.6	13.4	11.4	27.6	15.9	15.8
WRP	0.0	0.0	1.3	1.5	1.4	0.0	2.8
EQIP	0.0	0.0	0.0	0.0	1.5	1.4	2.9

Table C.15 Percentage of farmland owned by ownership type cross-tabulated with Iowa residency, 1997

Ownership Type	**All owners**	**Resident owners**	**Non-resident owners**
Sole owners	31.2	31.9	27.7
Husband and Wife	39.1	43.9	9.6
Other joint/co-owners	5.6	5.4	7.4
Partnerships	4.0	3.3	7.1
Estates	2.7	2.5	4.1
Trusts	7.4	6.0	15.5
Corporations	5.3	4.4	11.2
Limited liability companies	4.7	2.7	17.5

APPENDIX D

COEFFICIENT OF VARIATION TABLES

Table D.1 Coefficients of variation in percent for each ownership type, state-wide data, 1982, 1992, and 1997.

Ownership type	1982	1992	1997
Sole owners	7.3	7.8	7.7
Joint tenants	7.5	7.3	7.1
Other co-owners	18.4	13.9	12.1
Partnerships	45.3	25.7	23.1
Estates	20.3	23.7	21.1
Trusts	46.8	19.0	23.3
Corporations	7.9	7.7	7.7
Limited liability company			

Table D.2 Coefficients of variation in percent for each ownership type, 1997 regional data

Ownership type	NW	SW	N	NC	S	NE	E
Sole owner	2.3	2.2	2.6	3.4	3.2	3.5	2.1
Joint tenants	2.1	1.7	1.4	1.1	3.3	4.1	2.8
Other co-owner	1.1	4.1	3.1	1.1	2.1	1.9	5.1
Partnerships	5.7	3.4	5.1	8.1	7.1	5.1	9.5
Estates	8.2	6.3	5.5	4.2	6.1	5.7	7.2
Trusts	5.7	9.4	5.4	6.1	4.4	5.1	3.2
Corporations	5.1	1.2	3.2	2.5	1.4	2.6	3.4
Limited liability company	2.1	4.5	4.7	7.8	5.4	6.6	3.5

Table D.3 Coefficients of variation in percent for tenure of land ownership, 1982, 1992, and 1997 as a percentage of farmland, all landowners

Tenure	1982	1992	1997
Operate solely	4.3	4.7	5.2
Operate w/help	38.0	38.0	34.2
Cash rent	9.2	9.5	9.1
Crop share	8.9	9.6	8.4
Other renting	34.9	38.7	44.3

Table D.4 Coefficients of variation in percent for percentage of all farmland owned by tenure, 1997 regional data.

Tenure	STATE	NW	SW	N	NC	S	NE	E
Operate solely	3.4	2.3	2.6	3.4	2.1	2.8	2.7	3.3
Operate w/hired help	33.4	33.6	34.2	39.1	31.9	32.7	34.9	30.5
Cash rent	7.8	8.5	4.5	9.5	6.3	7.8	8.9	5.4
Crop share	5.9	6.6	8.6	9.4	5.8	8.3	4.9	7.7
Other renting	22.4	29.8	55.4	25.4	36.2	34.8	34.7	36.8

Table D.5 Coefficients of variation in percent for percentage of all farmland managed by a professional farm manger, 1982, 1992, and 1997

Professional farm manager	1982	1992	1997
	24.0	28.7	27.3

Table D.6 Coefficients of variation in percent for percentage of all farmland by financing method, all owners, 1997 regional data

Financing method	STATE	NW	SW	N	NC	S	NE	E
Debt free	11.7	20.5	13.5	11.5	21.8	17.9	16.3	17.3
Under contract	18.9	17.8	22.3	24.5	28.6	27.5	24.5	28.9
Through mortgage	13.4	18.9	14.7	16.7	16.3	17.5	15.8	19.4

Table D.7 Coefficients of variation in percent for all farmland held in various sizes of owned acreage by all owners, 1982, 1992, and 1997

Size (acres)	1982	1992	1997
< 80	9.9	13.1	21.3
81-240	5.2	5.4	6.4
241-600	4.9	5.3	4.3
>600	11.8	9.6	7.4

Table D.8 Coefficients of variation in percent for farmland by age of farmland owners in stages of the life cycle, 1982, 1992, and 1997

Age group	**1982**	**1992**	**1997**
<25 years	55.6	80.2	87.1
25-34	17.8	23.6	22.3
35-44	13.2	15.1	11.3
45-54	10.1	11.4	9.5
55-64	8.6	9.1	7.9
65-74	11.6	9.5	10.2
>74	13.3	9.9	11.8

Table D.9 Coefficients of variation in percent of farmland owned by age cross-tabulated with size of owned acreages, 1997

Size	**<34**	**35-64**	**>65**
0-99acres	24.0	13.1	17.9
100-279acres	21.5	6.8	10.2
280-519acres	32.6	8.0	16.2
>519acres	46.9	13.5	28.4

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