Iowa Farmland Ownership and Tenure Survey 1982–2017: A Thirty-five Year Perspective

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Abstract: Farmland is arguably often a farmer's single largest investment item, a major source of collateral, and a key component of the farmer's debt portfolio. At the macro level, the value of land and buildings represent over 80 percent of all U.S. farm assets. As a result, changes in the farmland market and the implications for farmland owners, tenants, and beginning farmers are of perennial interest to policymakers, landowners, producers, and researchers. Using a statistically representative sample of Iowa landowners in July 2017, this study provides a critical update to the Iowa Farmland Ownership and Tenure survey series and a thirty-five year perspective (1982 to present) on many aspects of land ownership, land tenure, land transitions, and characteristics of landowners, including non-operator landowners, farmland rental agreements, the financing of farmland, the acquisition and transfer of land, and demographics of landowners. The 2017 survey also added the use of conservation practices and cooperative services on Iowa farmland. This survey carries out an Iowa legislative mandate, and represents a nationally unique study that has been conducted every five years since the 1980s to better understand agricultural land ownership, tenure, and transfer.

Key Words: Land Ownership, Land Tenure, Farmland Leasing, Rental Agreements, Landowners, Tenant, Iowa, Estate Planning, Succession Planning, Non-operating landowners, Women Landowners, Conservation, Beginning Farmers, Cooperatives, Agricultural Finance, Farmland Sales

JEL Codes: Q15, Q13, Q14, Q18, K25

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Executive Summary

Farmland Ownership and Tenure in Iowa 1982–2017: A Thirty-Five Year Perspective carries out a mandate of the Iowa Legislature. This study focuses on forms of ownership, tenancy, and transfer of farmland in Iowa in 2017, as well as characteristics of landowners. The purpose of the study is to document the current situation with respect to Iowa farmland. In addition, this study compares and contrasts the current situation with that found in earlier studies since 1982.

The Iowa Farmland Ownership and Tenure survey started in the 1940s, and since 1989, it has been conducted every five years as mandated by Iowa Code. This survey series is the first of its kind in the nation and the only consistent information on the ownership, tenure, and transitions of farmland at the state level.

The 2017 survey is based on a random sample of 40-acre tracts of farmland. Landowners of these tracts were interviewed via telephone with a response rate of over 60 percent. The sampling design means that the survey results presented in this study are statistically representative of all farmland and all landowners in Iowa as of July 1, 2017.

The 2017 survey was sponsored by the Iowa State University College of Agriculture and Life Sciences (CALS). With funding support from the Leopold Center for Sustainable Agriculture and the Iowa Nutrient Research Center, the 2017 survey added new questions on land tenure and conservation, as well as more details on land transfer and transitions. Additionally, the CoBank Fund for Excellence in Cooperative Economics sponsored a new section on the use of cooperative services on Iowa farmland.

Most of the results in this report will be presented as a percentage of farmland in Iowa. The 2017 survey also allows the representation of the results as a percentage of landowners. Unless noted otherwise, the 2017 results will be presented in terms of percentage of land.

The 2017 survey revealed many policy-relevant trends in the ownership and tenancy of farmland as well as characteristics of farmland owners. Below are some of the highlights:

- Eighty-two percent of Iowa farmland is owned free of debt, which represents a significant increase from 62 percent in 1982 and 78 percent in 2012.

- Sixty percent of farmland is owned by people 65 years or older and 35 percent of farmland is owned by people 75 or older.

- Forty-seven percent of farmland is owned by women, 13 percent is owned by female landowners over 80.

- Fifty-three percent of farmland is leased, with the majority of farmland leases being cash rental arrangements.

- Twenty-nine percent of Iowa farmland is primarily owned for family or sentimental reasons.

- There is a continuous shift away from sole ownership and joint tenancy to trusts and corporations, which accounted for 20 percent and 10 percent of land, respectively, in July 2017.

- Over half of Iowa farmland is owned by someone who does not currently farm, of which 34 percent is owned by owners with no farming experience, and the remaining 24 percent is owned by retired farmers.

- Eighty percent of land was owned by full time Iowa residents, seven percent was owned by part-time residents, and 13 percent was owned by those who do not live in the state.

Five major trends in the ownership, tenure, and transfer of Iowa farmland are worth noting from the 2017 survey. The first major change is the continuation of aging farmland owners in Iowa. In 2017, over half the farmland (60 percent) in Iowa was owned by people over the age of 65. This was five percentage points higher than in 2007, and twice the level in 1982. In addition, farmland owners who were 75 years or older owned a record 35 percent of all acres in Iowa as of July 2017. The aging farmland owner issue is not just unique to Iowa and not unique to landowners either. The U.S. Census of Agriculture has revealed aging farm operators, which is consistent with the aging workforce in non-agricultural sectors across the nation, too. However, the continuation of aging farmland owners does pose significant challenges for access to land, especially by beginning farmers.

A second major trend that had been observed is the increasing amount of land that is cash rented. Leased farmland was equally divided between cash rent and crop share leases in 1982. By 2017, 82 percent of leased farmland was under a cash rent arrangement. The use of flexible cash rent leases has also been on the rise. The trend away from crop share to cash rent agreements has two primary reasons. First, as landowners become more dispersed, payment in grain becomes much more of a burden, especially for those unfamiliar with agricultural markets. Second, there has been an increase in the number of landowners each tenant has today. The more landowners there are, the more burdensome it becomes to keep grain differentiated by owner. The low-to-negative margins in production in recent years may also play a role.

The third major trend relates to the financing of Iowa farmland. In 2017, 82 percent of Iowa farmland was owned debt free, which represents a significant increase from 62 percent in 1982 and 78 percent in 2012. This could be the result of profits earned during good crop years in 2012 and 2014 and profitable livestock production years like 2014. Currently, U.S. farm income is half of its 2013 peak, and the Federal Reserve is continuing efforts to raise interest rates. The high percentage of land held debt free is a major factor for the relative stabilization of the farmland market but also a reason for limited land supply across the Midwest.

The fourth major trend is the increasing relevance of family or sentimental reasons for owning land. Farmland is owned for three primary reasons: (*a*) half of the land is owned for current income; (*b*) 19 percent is owned for long-term investment; and, (*c*) 29 percent is owned for family or sentimental reasons—an increase from 22 percent in 2012, and a change from 2007 when more people owned their land as a long-term investment versus for current income. This is concurrent with the increasing amount of land held by late-stage landowners and land owned debt free.

The fifth major trend is a continuing shift away from sole ownership and joint tenancy towards more institutionalized ownership structures such as trusts and corporations. In particular, trusts accounted

for 20 percent of all acres in Iowa as of July 2017, while three decades ago almost no land was owned in that fashion. In contrast, the share of farmland owned by sole owners or joint tenancy declined from 80 percent of farmland in 1982 to only half in 2017. Most of the trusts were revocable trusts that last for one generation, which suggests that key motivations for the increasing use of trusts were estate planning, transition planning, and tax management.

All these trends have significant implications for when and how farmland is intended to be transferred to the next generation. Willing or giving the land to family remained the most popular method of intended land transfer, accounting for more than half of all acres of Iowa farmland. The second-most popular intended method of land transfer was putting it into a trust. Only seven percent of Iowa farmland was intended to be sold to a non-family member. The recent federal and state tax policy changes, especially the reinforcements of stepped-up basis for farmland transition and 1031 exchanges for farmland, likely will continue to make the farmland market tight with limited land sales.

The new section on land tenure and conservation reveal that about four percent of Iowa farmland is currently growing cover crops, and about 20 percent of farmland owners expressed willingness to pay a portion of planting costs to encourage more adoption of conservation practices on the land they own.

The new section on cooperatives revealed that approximately 30 percent of Iowa's land uses inputs purchased from a cooperative, markets products through a co-op, and uses custom services of agricultural cooperatives.

The agricultural economy in Iowa and the Midwest is arguably in a critical inflection point. On the one hand, commodity prices, farmland prices, and farm income started to show signs of stabilization or slight increases; on the other hand, the agricultural economy is facing growing downward pressure through rising interest rates and heightened uncertainty with several of our major trading partners. This study and previous versions of the Iowa Farmland Ownership and Tenure surveys provide a unique long-term perspective for us to better understand how trends in farmland ownership and tenancy responded and will respond to these macroeconomic changes, and the landowners' decisions on how to own, operate, and transfer their land will significantly shape the future of Iowa and Midwest agriculture.

1. Introduction

The Iowa farmland rental market has undergone considerable change in the past few years. Following the 2013 Iowa land value peak, the declining commodity prices and farm income, changes in technology, and changes in the demographics of farmland owners have created uncertainty with respect to the farmland rental market. Over the past few years, we have experienced declines in farmland values, gradual increases in interest rates, and significant changes in federal tax policies; thus, it is critical to examine the status and trends in Iowa farmland ownership, tenure, and transitions.

The percentage of farmland owned by people over the age of 75 has more than doubled over the past three decades. Today, over half the Iowa farmland is owned by people 65 or older. Given normal life expectancy, this means we could see a substantial amount of Iowa farmland change ownership over the next several years. Some of this land may simply be passed to the next generation, who will be in their 60s or 70s at the time of transfer, but some land may skip generations or simply be sold.

What do the record land values and aging farmland owners portend for the future? Who owns Iowa farmland and how it will be farmed could change considerably over the next decade. The information presented in this report provides a snapshot of where we are today, where we have been, and where we might be headed with respect to farmland ownership.

Concern over farmland ownership and tenure can be traced back to the founding of our country. Throughout the twentieth century there were several periods where farmland ownership and the impact of alternative forms of tenure were of considerable importance. During the Great Depression over half of the farms in Iowa were tenant farms. In other words, the farmer owned no land at all. This situation has changed considerably. Today, the majority of farmland is farmed by people who own some of the land they farm but rent most of it. Approximately 30 percent of Iowa farmers are part-owners and they farm over 60 percent of Iowa's farmland. Only 12 percent of farms are tenant farms.

Technology continues to change and increase the amount of land one person can farm, and it also allows a person to remain active in farming to a later age.

The impact of technology, the impact of demand shifts for biofuels, the impact of the aging farmland owner, and a myriad of other factors all indicate there will be changes in Iowa farmland ownership. It is against this background of change that the survey reported here was conducted.

Iowa farmland ownership surveys have been conducted by Iowa State University researchers for over 60 years. In 2017–18 Iowa State University's Center for Survey Statistics and Methodology conducted the Iowa Farmland Ownership and Tenure survey, a state-wide telephone survey of owners of farmland in Iowa under the sponsorship of the ISU Department of Economics and Center for Agricultural and Rural Development. This longitudinal survey has been conducted every five years since 1989 and the results are statistically representative of all farmland and all farmland owners in Iowa.

The 2017 Land Ownership and Tenure survey carries on the tradition of surveys conducted in 1949, 1958, 1970, 1976, 1982, 1992, 1997, 2002, 2007, and 2012. This series of studies concerning land ownership is unique to Iowa.

The 2017 survey was structured so that the results can also be applied to the crop reporting districts created by the USDA. This will allow for comparison with the results in other studies.

Most of the results in this report will be presented as a percentage of farmland in Iowa. The 2017 survey also allows the representation of the results as a percentage of landowners. Unless noted otherwise, the 2017 results will be presented in terms of percentage of land.

Each of the earlier surveys was conducted to accomplish several objectives. In addition to considering many of the objectives covered in earlier surveys, the 2012 study was 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 Code
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 impacts 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.

Dimensions of the Study: Ownership and Tenure
The 2017 study continued the analysis from the previous studies examining both land ownership and tenancy. Where appropriate, the results of the 1982, 1992, 2002, 2007, and 2012 studies are compared with the analysis presented here. The 1997 results may also be presented, but, in the interest of simplicity in comparison, only data from 1982, 1992, 2002, 2007, and 2012 are presented in most tables.

The concept of "land tenure" refers to the manner in which or the period for which rights in land are held. Additionally, land tenure consists of the social relations and institutions governing access to and ownership of land. Tenure describes the rights the landowner maintains or the rights given to the tenant. With increased environmental protection emphasis, several modifications in tenure arrangements have developed including acquisition of easements by private and governmental organizations to obtain partial interests in land. Also, in recent decades professional farm managers have been entrusted with property management and some of the rights of the landowner by acting as the owner's agent. For all of these reasons, and because a substantial portion of farmland is leased, tenancy aspects of land ownership are analyzed in detail in Chapter V.

There are two unique features in the 2017 survey not found in earlier surveys. First, with a new grant from the Iowa Nutrient Research Center, there were questions added regarding the use and nature of conservation practices on owner-operated versus leased land, as well as the perceptions and responses of landowners to various incentives encouraging greater conservation practices. Recently, water quality has become a growing concern in Iowa and the Midwest, and adoption of conservation practices, such as cover crops, are regarded as a critical piece to solve this problem. Second, with

support from the CoBank Fund for Excellence in Cooperative Economics, a gift to ISU CALS spearheaded by Dr. Keri Jacobs, we added questions on the use of cooperatives in purchasing inputs, market agricultural products, and custom services.

Similar to 2012, the 2017 survey also allows some statistical presentation based on the number of farmland owners as well as the percentage of farmland. Some people consider this is a minute distinction, but it is very statistically important. As will be explained later, the survey here is designed to report on farmland, so, unless noted, the statistics are percentage of farmland.

The 2017 survey was sponsored by the Iowa State University College of Agriculture and Life Sciences (CALS). The ISU Extension and Outreach program, the Center for Agricultural and Rural Development, and the Department of Economics also provided support. The 2017 survey was funded in part by the Iowa State University Leopold Center for Sustainable Agriculture and the Iowa Nutrient Research Center. Additionally, the CoBank Fund for Excellence in Cooperative Economics, a gift to ISU CALS spearheaded by Dr. Keri Jacobs, also contributed to this effort. Their contributions are greatly appreciated.

Jan Larson, Allison Anderson, and other members of the Iowa State University Center for Survey Statistics and Methodology helped with constructing the survey, developing appropriate methodology and collecting the data. Faculty and retired faculty from the Iowa State University Department of Statistics were involved with the selection of samples and developing appropriate weights for each observation. Faculty and retired extension faculty in the ISU Department of Economics and ISU Extension and Outreach farm management team provided valuable feedback on several questions.

See the appendices for a complete presentation of the methodology and statistical procedures used in this study.

2. Survey Methods

The 2017 Survey

The 2017 survey was conducted by telephone by the Iowa State University Center for Statistics and Methodology. Telephone interviews were conducted from October 18, 2017 to February 2, 2018. The target for this study is Iowa land that was used for agricultural purposes as of July 1, 2017. Since no complete list of owners of Iowa farmland is available, landowners were sampled through a two-stage area sampling design. The survey sample is a scientifically drawn random sample of all landowners in Iowa, and the results of this report are statistically representative for all farmland and all landowners in Iowa.

Survey questionnaires were completed by trained telephone interviewers who edited and checked the responses for consistency. See Appendix A for more discussions about the sampling design and statistical methodology, as well as Appendix B for a copy of the survey instrument.

Table 2.1. Survey Method for Iowa Farmland Ownership and Tenure Surveys 1958–2012

Year	Method of Survey	Landowners in sample (number)	Usable responses (number)	Usable responses (percent)
1958	Mail	11,022	2,576	23
1970	Mail	12,520	3,216	26
1976	Mail	4,392	1,503	34
1976	Phone	1,044	743	71
1982	Phone	1,065	992	93
1992	Phone	1,053	940	89
1997	Phone	861	656	76
2002	Phone	795	633	80
2007	Phone	794	557	70
2012	Phone	794	555	70
2017	Phone	788	535	68

Table 2.1 compares the 1958, 1970, 1976, 1982, 1992, 1997, 2002, 2007, 2012, and 2017 Iowa Farmland Ownership and Tenure surveys in terms of their survey method, number of landowners in the sample, number of usable responses, and percentage of usable responses.[1] The 1949 survey

[1] See the following for discussions of past surveys:
M. Duffy, et al. Farmland Ownership and Tenure in Iowa, 2012, ISU Extension Publication PM 1983, revised, November 2014.
M. Duffy, et al. Farmland Ownership and Tenure in Iowa, 2007, ISU Extension Publication PM 1983, revised, November 2008.
M. Duffy, et al., Farmland Ownership and Tenure in Iowa 1982 – 2002: A Twenty Year Perspective, ISU Extension Publication PM 1983, July (2004).
A.M. Schultz, "Iowa farmland ownership and tenure, 1982-1992: analysis and comparison" (1994). *Retrospective Theses and Dissertations.* Paper 17179.
T. Jackson, Iowa Farm Ownership and Tenure, ISU Dept. of Economics Thesis (1989).
B. D'Silva, Factors Affecting Farmland Ownership in Iowa, ISU Dept. of Economics Thesis (1978).

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

General Sample Selection

Parcels of land in each county were scientifically chosen on a random basis in 1988. All agricultural land owned in Iowa had the potential to be included in the general sample. The same parcels were used for the 1992, 1997, 2002, 2007, 2012, and 2017 surveys.

The sample unit or parcel was a quarter of a quarter section of land (i.e., a 40-acre tract). Landowners within this sample unit were then identified and became potential survey respondents.

The state was divided into seven regions ranging in size from seven to 23 counties. Within 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, whereas the 15 smallest counties had five samples each. The sample units were 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.

The use of special regions has historical basis and was continued in 2017. However, since 2012, the data was also tabulated so that statistics can be presented on the basis of crop reporting districts used by the USDA, among others. Presenting the data on a crop reporting district basis will allow broader comparisons with other data.

Legal descriptions of selected 40-acre parcels from this sampling procedure were sent to county auditors before each survey. The auditors provided information about the owners of land within the sample 40-acre units. The owners of record or their representatives, as identified by the county auditors, were then surveyed as respondents.

Some of the 40-acre parcels had more than one ownership unit. Each ownership unit was treated as a separate entity. For example, the 705 sample parcels had 958 separate ownership units. Of these, 788 eligible agricultural ownership units were included in the survey.

Some of the ownership units had multiple owners. Where there was more than one owner for the ownership unit (other than husband and wife), one owner was randomly selected for inclusion in the demographic description portion of the survey to be used for weighted calculations. The sampling design for selecting a person among all the owners of the parcel was equal-probability sampling.

See Appendix A for a complete description of the sampling methodology used for the 2017 survey.

Geographic Regions and Crop Reporting Districts Used in 2017

Using regions identified in the 1950 U.S. Census of Agriculture, Iowa was divided into seven geographical regions in the 1958 survey. The composition of these regions was continued in the

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M. Berk, "Changing structure of Iowa farmland ownership" (1971). Retrospective Theses and Dissertations. Paper 4939, ISU Dept. of Economics Thesis (1971).
R. Strohbehn, Ownership Structure of Iowa Farm Land, ISU Thesis (1959).

2017 survey. Figure 2.1 shows the regions that are used throughout the survey. The regions 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 – 7 counties including Osceola, Dickinson, Emmet, Kossuth, Clay, Palo Alto, and Hancock.
4. North Central 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, Floyd, 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.

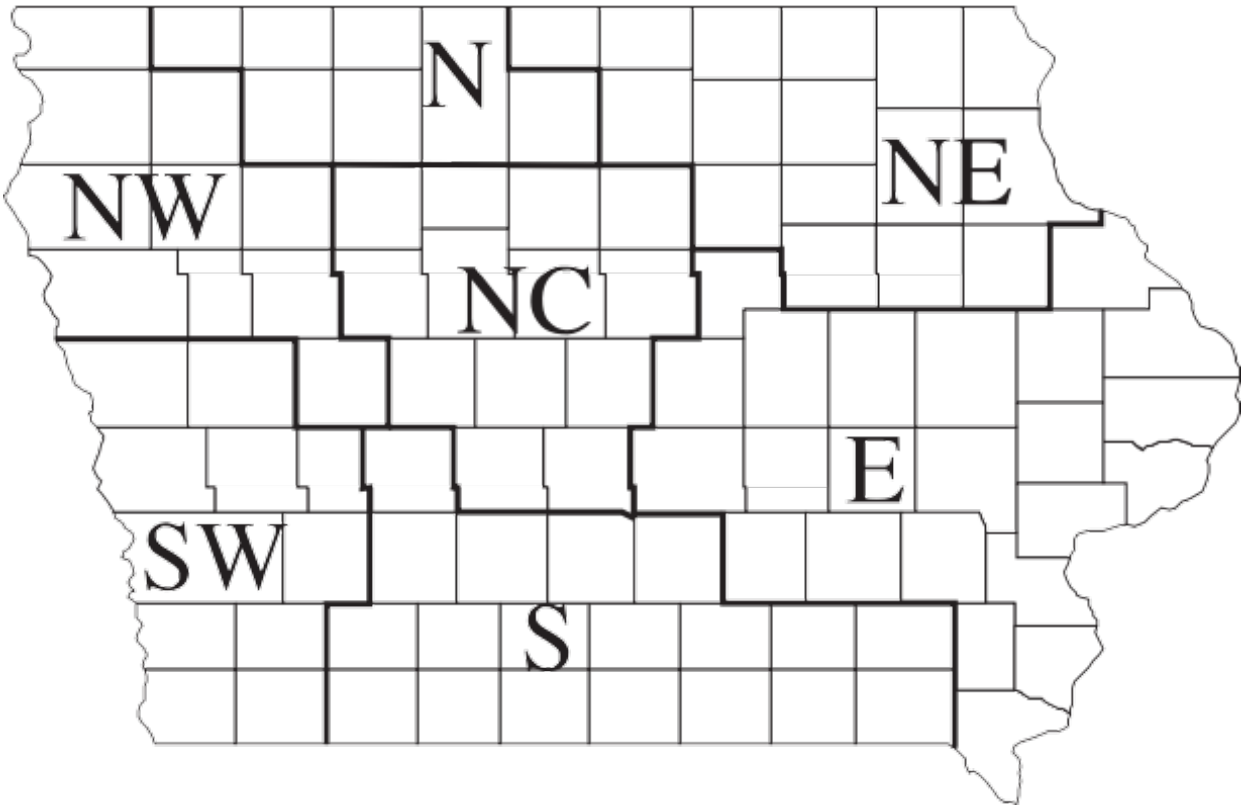

Figure 2.1. Iowa regions used in the 1958, 1970, 1976, 1982, 1992, 1997, 2002, 2007, 2012, and 2017 surveys.

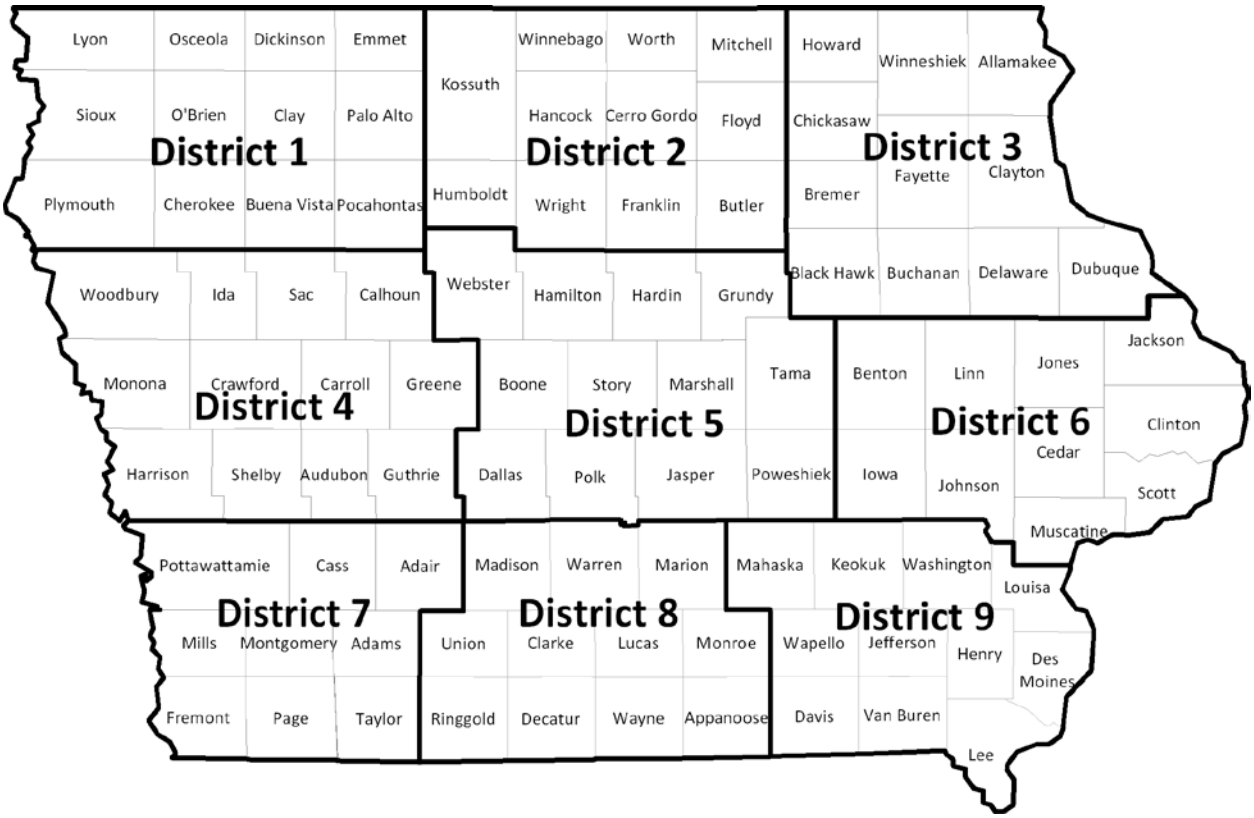

Figure 2.2. Iowa crop reporting districts used in the 2012 and 2017 surveys.

Figure 2.2 shows the crop reporting districts developed by the USDA. The 2012 survey added analysis on the basis of two regional distinctions and the 2017 survey followed that methodology. Using the original regions allows comparisons historically, and using crop reporting districts makes the data more compatible with USDA definitions and allows comparison with other data sources.

The crop reporting districts that are used throughout the survey and are described as:

1. Northwest District – 12 counties including Buena Vista, Cherokee, Clay, Dickinson, Emmet, Lyon, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sioux.
2. North Central District – 11 counties including Butler, Cerro Gordo, Floyd, Franklin, Hancock, Humboldt, Kossuth, Mitchell, Winnebago, Worth, Wright.
3. Northeast District – 11 counties including Allamakee, Black Hawk, Bremer, Buchanan, Chickasaw, Clayton, Delaware, Dubuque, Fayette, Howard, Winneshiek.
4. West Central District – 12 counties including Audubon, Calhoun, Carroll, Crawford, Greene, Guthrie, Harrison, Ida, Monona, Sac, Shelby, Woodbury.
5. Central District – 12 counties including Boone, Dallas, Grundy, Hamilton, Hardin, Jasper, Marshall, Polk, Poweshiek, Story, Tama, Webster.
6. East Central District – 10 counties including Benton, Cedar, Clinton, Iowa, Jackson, Johnson, Jones, Linn, Muscatine, Scott.
7. Southwest District – 9 counties including Adair, Adams, Cass, Fremont, Mills, Montgomery, Page, Pottawattamie, Taylor.
8. South Central District – 11 counties including Appanoose, Clarke, Decatur, Lucas, Madison, Marion, Monroe, Ringgold, Union, Warren, Wayne.

9. Southeast District – 11 counties including Davis, Des Moines, Henry, Jefferson, Keokuk, Lee, Louisa, Mahaska, Van Buren, Wapello, Washington.

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 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, maintaining 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 and other government programs.

In 2017, the sample was aggregated so that it is possible to make some inferences to the percentage of owners as well as the percentage of the farmland owned. The expansion to number of owners is only possible when the specific question is based on demographics and not the farmland. Comparing percentage of farmland and percentage of owners allows us to make inferences regarding the size impact.

The 2017 study was conducted in a manner similar to the 1982, 1992, 2002, 2007, and 2012 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.

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, unless noted, was completed using the percentage of farmland for statistical weighting.

3. Land Ownership

The majority of this study focuses on the characteristics of the landowner analyzed in relation to the land owned. However, due to some special weighting and additional questions, we are able to present data on the basis of farmland owners. In most cases, the difference between the percentage of farmland and the percentage of farmland owners is not great. However, statistically, the distinction between farmland and farmland owners should be considered. The owner/land distinction allows a clearer focus on the changes occurring in the ownership structure of the land.

Table 3.1 presents an overall summary of land ownership and use in Iowa. The percentage of farmland rented has remained slightly over half of all Iowa farmland for the past few decades. The biggest change is the continuous shift away from crop share lease to cash rental arrangements in both flexible and fixed cash rent leases from 2012 to 2017. Recent low or negative profit margins for crop production may have accelerated the switch away from crop share leases. Land tenure will be discussed in Chapter V later in this report.

Table 3.1. Distribution of Iowa Farmland by Control

	Percent	Acres
Owner Controlled:	47%	13,851,567
Owner operated	37%	10,819,245
Custom farmed	2%	583,485
Government programs and other uses	8%	2,448,837
Leased:	53%	16,771,192
Cash rent (fixed)	35%	11,502,256
Cash rent (flexible)	9%	2,354,117
Crop share	9%	2,875,316
Other types of leases	<1%	39,503
Total:	100%	30,622,759

Data analyzed in this study reveal the ownership patterns from the 2017 Farmland Ownership and Tenure survey. The following areas of farmland ownership are considered:

- Ownership type
- Tenancy
- Method of financing, if relevant
- Method of acquiring the land
- Length of ownership
- Land handled by professional farm managers
- Land under production contract

Ownership Type

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

- Sole owner
- Joint owners (includes husband/wife)

- Tenancy in common, and other co-ownership
- Partnership, Limited Liability Partnership (LLP), or Limited Partnership (LP)
- Life estate and unsettled estates
- Trust
- Corporation
- Limited Liability Company (LLC)

Joint tenancy of agricultural land in Iowa predominantly involves a husband and wife as joint tenants. Joint tenancy other than husband and wife is included in the "other co-ownership" category along with tenancy in common, thereby maintaining continuity with past studies.

With joint tenancy, 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 necessarily passing 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 of a business for profit. General partnerships involve unlimited liability of the individual partners 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. Because of the small numbers of the different types of partnerships, these were all listed under the general title partnership.

Trusts are an instrument that can hold the ownership of the land during the life of, 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. The use of trusts has increased dramatically over the past several years.

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

This survey looked at corporations as a general group, although corporations are divided into various categories as defined in Chapter 9H of the Iowa Code. Corporation categories include family farm corporations, authorized farm corporations, nonprofit corporations, and other types of corporations. In contrast, an LLC is a type of company with the limited liability of a corporation and the income tax treatment of a partnership. It is more informal than a corporation but still must file with the state.

Table 3.2 presents the 1982, 1992, 2002, 2007, 2012, and 2017 survey results regarding division of Iowa farmland by ownership type.

Based on the 2017 survey, there is a continuous shift away from sole owners and joint tenancy to more institutionalized ownership in the form of trusts or corporations. In particular, there is a dramatic increase in trusts, which increased from only one percent in 1982 to 10 percent in 2007 and 20 percent in 2017. The use of trusts appears to be mainly a tool for estate planning, tax management, or transition planning. Dr. Mike Duffy led a special study of the use and nature of trusts as part of the 2012 survey, and found that revocable trusts made up 57 percent of the total land

in trusts, with two-thirds of the trusts set to last for one generation. In addition, there is a slight increase in the use of corporations, but is not drastically different from the usage through the past three decades.

Table 3.2. Percentage of Farmland Owned by Ownership Type

	1982	1992	2002	2007	2012	2017
Sole owner	41%	38%	28%	29%	25%	22%
Joint tenancy	39%	38%	37%	35%	32%	28%
Tenancy in common	7%	7%	12%	10%	8%	8%
Partnership	<1%	2%	2%	3%	3%	3%
Estates	4%	3%	4%	3%	3%	4%
Trusts	1%	5%	8%	10%	17%	20%
Corporations	8%	8%	7%	9%	7%	10%
LLC	N/A	N/A	1%	1%	5%	5%
Government/institution	N/A	N/A	1%	1%	>1%	N/A

Sole and joint owners continue to own half of the state's farmland, accounting for 22 percent and 28 percent of the farmland, respectively, as of July 2017. However, these numbers are significantly down from the 1982 survey, which reported 80 percent for the combined groups. It is interesting to note, however, that the majority of trusts are either sole owner or a couple.

Tenancy in common accounted for eight percent of farmland in 2017. Estimates for the remaining farmland owned by the other categories are estates (four percent), partnerships of all types (three percent) and LLCs (five percent).

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 for all Iowa farmland is discussed in this chapter.

Table 3.1 shows that 47 percent of land is controlled by the owner, whereas 53 percent of land is leased. Table 3.3 presents a more detailed examination of changes occurring over time. This table excludes government conservation acres and custom farmed acres. Government conservation was not as prevalent in 1982, and, although the owner controls the land, Table 3.3 attempts to show who is operating the land.

Table 3.3. Distribution of Iowa Farmland by Tenure

	1982	1992	2002	2007	2012	2017
Owner-operated	55%	50%	41%	40%	40%	41%
Cash rent lease	21%	27%	40%	46%	46%	49%
Crop share lease	21%	22%	18%	13%	13%	10%
Other type of lease	1%	1%	1%	1%	1%	< 1%

Note: Does not include acres enrolled in government programs or custom acres.

In 2017, the distribution of farmed land among the various types of tenure arrangements increased slightly relative to 2012. This is without the Conservation Reserve Program and other conservation or custom farmed acres. Table 3.3 does show the continuous trend towards more cash rented land. In 1982, cash rented land and land with a crop share lease each accounted for 21 percent of the land. By 2007, cash rent accounted for 46 percent of the land and crop share leased land was only 13 percent of the land. The distribution of farmland by tenure type did not change from 2007 to 2012; however, over the last five years, there has been a continued movement from crop share to both fixed and flexible cash rent leases. The amount of land that is owner-operated has been steadily declining since 1982, going from 55 percent to about 40 percent over the past decade. The slight increase in owner-operated land from 40 percent in 2012 to 41 percent in 2017 could be a result of profitable crop production years in 2012 and 2013 and high livestock profits in 2014. Remember that Table 3.3 does not include acres participating in a government program or custom farmed acres.

Methods of Financing Iowa Farmland

Interest rates for purchasing farmland were approximately 5.5 percent at the time of the 2017 study. There was considerable variation in interest rates depending on the financial position of the borrower.

In 1982, interest rates were just beginning to decrease after a record high in 1981. During this same period, Iowa was experiencing a record decrease in farmland values. Farmland values have risen almost every year since 1986 following the farm debt crisis of the mid-1980s. From 2003 to 2013, the Iowa farmland market enjoyed record-level growth. Historically low interest rates were one of the key factors behind the 2013 peak level of land values. More recently, the Federal Reserve has, and will continue to, raise interest rates, which will put downward pressure on farm income and land values, as well as the financial position of the borrower.

Table 3.5 shows the change in financial position from the farm crises of the 1980s to the boom of 2012 and the downturn in 2017.

Farmland was classified into three groups in terms of financing arrangements existing on the land: (*a*) debt free; (*b*) purchased through a purchase contract or contract for deed; and, (*c*) 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 the buyer and seller for the transfer of property. Most of these contracts are held between individuals.

The other 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 the title. Table 3.5 shows the percentage of land owned in each of these groups.

Table 3.5. Finance Method as Percentage of Farmland

	1982	1992	2002	2007	2012	2017
Free of debt	62%	70%	74%	75%	78%	82%
Under contract	18%	11%	4%	4%	3%	2%
Mortgaged	20%	19%	22%	21%	19%	16%

The percentage of land without debt continued to increase in 2017. In 2017, over 82 percent of land was held without debt. This is significantly higher than in 1982 when the state was just entering the farm debt crisis, at that time 62 percent of land was held without debt and 18 percent was under a contract. This also represents a noticeable increase from the 78 percent of land free of debt in 2012.

Contracting was a popular method of financing during the period of rapidly increasing land values in the 1970s. The high percentage of land under contract was one of the problems in the 1980s because people with a contract can forfeit the land easier than when there is a mortgage. The increase in land on the market was just one of the many land problems in the early 1980s. Evidence indicates we have not seen a return to the use of contracts during the current land boom. However, land under contract was disproportionally higher with owners who were less than 35 years of age.

Methods of Acquiring Iowa Farmland

Four different modes of acquisition were examined: (*a*) land was purchased; (*b*) land was received as a gift from a person living at the time of the transfer; (*c*) land was inherited; and, (*d*) land was obtained in some other manner.

Purchased land may involve a purchase contract, a note and mortgage, or land that is purchased with 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 3.6 shows percentage estimates for these acquisition methods. Thirty-one percent of the land was acquired without encumbrance by gift or inheritance, and 68 percent was acquired by purchase. Although land via purchase still represents the dominant method of acquisition, the percentage of purchased land decreased compared to five years ago and the share of inherited land increased from 23 percent in 2012 to 28 percent in 2017. Older farmers tend to have more purchased land and less inherited land relative to their younger counterparts.

Table 3.6. Percentage of Iowa Farmland by Method of Acquisition

	1997	2002	2007	2012	2017
Purchase	62%	72%	73%	74%	68%
Gift	3%	3%	3%	4%	3%
Inherited	35%	25%	23%	23%	28%
Other	0%	0%	1	1%	1%

Length of Ownership

Length of ownership is an important indicator of ownership turnover. The 2017 study documented changes in land ownership. Table 3.7 shows the current pace of ownership turnover as well as the comparison with 2012. There was not much change from 2012 to 2017 in terms of the length of ownership. The one interesting change is that the percent of land that was held for 10 to 20 years increased from 21 percent in 2012 to 24 percent in 2017, which likely reflects the landowners' investment of profits from 1997 to 2007 following the significant commodity price increases from 2003. As of July 1, 2017, approximately one-third of land in Iowa was held by the same owner for over 30 years; specifically, 20 percent of land was owned for over 40 years by the same owner, of which eight percent was held for over a half-century. In contrast, less than one-quarter of land in Iowa was bought less than 10 years ago, the same as land owned between 10 and 20 years.

Table 3.7. Percentage of Iowa Farmland by Length of Ownership

	2012	2017
> 50 Years	20%	8%
40-50 Years		12%
30-40 Years	15%	13%
20-30 Years	19%	20%
10-20 Years	21%	24%
< 10 Years	24%	24%

Farmland Managed by a Farm Manager

In recent decades, professional farm managers have been entrusted with property management and some of the rights of the landowner by acting as the owner's agent. Table 3.8 provides more details for all acres handled by a farm manager, regardless of whether it is leased out or controlled by owners. Almost half (47 percent) of acres handled by farmer mangers were paid a percentage of gross income, 36 percent were paid a flat dollar fee, and another 17 percent were either paid a percent of net income or some combination of land value and cash rent. The arrangements for land handled by a farm manager are also equally divided among fixed cash rent lease, crop share lease, and custom farming.

Three percent of Iowa farmland was handled by a professional farm manager, and four percent of all leased acres were managed by a professional farm manager. For leased land, 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 3.8. Distribution of Iowa Farmland by Arrangement Characteristics, 2017

	Flat dollar fee	Percentage of gross income	Other		
How farm manager is paid	36%	47%	17%		
	Fixed cash lease	**Flexible cash lease**	**Crop share lease**	**Custom farming**	**Other**
Arrangement between farm manager and farm operator	31%	2%	32%	33%	2%

Land under Production Contract

The 2017 survey added a new question regarding production contracts to better understand the extent to which continuing vertical integration in the agricultural sector impacted the control of farmland and the prevalence of production contracts. Table 3.9 shows that one-half percent of Iowa farmland was under a production contract for either crops or livestock, and the vast majority of production contracts that landowners were aware of were for seed or specialty crop production. In contrast, very few acres were used for livestock custom feeding or manure application.

Table 3.9. Percentage of Iowa farmland under Production Contract by Type, 2017

Livestock custom feeding	1%
Seed (or specialty crop) production	99%
Percent of total farmland under production contract	0.50%

Summary of Ownership Trends

Chapter III examined land ownership patterns and analyzed changes from 1982, from which the following conclusions may be drawn:

- Although sole owners and joint tenancy represent half of Iowa's farmland, their share is significantly down over the past few decades—the 1982 survey reported 80 percent owned by sole or joint owners.

- There is a continuous shift away from sole owners and joint tenancy to more institutionalized ownership in the forms of trusts or corporations, which now account for 20 percent and 10 percent, respectively, of all Iowa farmland.

- Fifty-three percent of Iowa farmland was leased out, and 47 percent of the land was controlled by the owner.

- The vast majority of leased land in Iowa was cash rented out, and the percentage of crop share leased land continued its decline from more than 20 percent in 1980s to less than 10 percent in 2017.

- The amount of farmland held without debt continues to increase. In 2017, 82 percent of all Iowa farmland was held without debt, compared to 78 percent in 2012.

- The amount of farmland acquired through purchase declined from 74 percent in 2012 to 68 percent in 2017, while the percentage of inherited land in Iowa rose from 23 percent five years ago to the current 28 percent.

- More than half of Iowa's farmland was owned by the same owner for over 20 years, of which 20 percent and 8 percent was held for more than 40 and 50 years, respectively.

- One-half percent of farmland was used in a production contract for crop or livestock production, and four percent of all leased acres were managed by a professional farm manager.

4.0Demographics

This chapter focuses on the characteristics of Iowa farmland owners and their demographics including age, residency, education, gender, and farming experience. The demographics of owners are expressed on the basis of the percentage of farmland owned. Demographics for the 1982, 1992, 2002, 2007, and 2012 studies are provided as a means of comparison with the 2017 study.

The demographics analyzed include:

- the age of the owner and age cross-tabulated with the 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
- farming status and farming experience
- gender and marital status

The 2017 survey allows comparison of results for both percentage of farmland and percentage of farmland owners. This comparison will be presented where it is statistically valid to examine the data both ways.

Age

The age of a landowner affects 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 agriculture's future 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.

In 1982, approximately 11 percent of Iowa's farmland was owned by people 34 years old or younger (Table 4.1). In 1992, the percentage of land owned by people in this category had dropped to just seven percent. By 2007, only two percent of farmland was owned by people in the early-stage category. In tandem with increasing profitability of the agricultural sector and the entry of young people into farming over the following five years, the percentage of land owned by those in the early stages of their careers actually increased to four percent by 2012. The agricultural sector has been characterized by declining and overall thin profit margins over the past five years, resulting in net exits from the early-stage category. In 2017, the percentage of land owned by people 34 years old or younger was only one percent—the lowest on record.

The percentage of land held by those in the mid-stage category, 35 to 64 years old, also seens some changes: in particular, there was an increase in the percentage of land held by those in the 55–64 age bracket whereas the percent of land held by owners who are between 35 and 54 years old declined significantly. The two youngest age categories in the mid-stage dropped significantly from 1982 to 2012. The percentage of land held by those in the 55–64 age bracket increased slightly since 1982. Overall, however, the amount of land owned by those in mid-stage has dropped from 59 percent in 1982 to just 39 percent in 2017.

Over half (60 percent) of the farmland in Iowa was owned by people over the age of 65 in 2017. Owners over 75 years of age have increased their percentage of acreage from 12 percent in 1982 to 35 percent in 2017. These results suggest a turnover in land ownership can be expected in the near

future. For a more detailed discussion, see Chapter V concerning land tenancy patterns and age, and Chapter VI for more details on the anticipated transfer of farmland in Iowa cross-tabulated with age.

Table 4.1. Percentage of Farmland by Age and Lifecycle Stage of Owner

	1982	1992	2002	2007	2012	2017
Early stage						
< 25	1%	1%	<1%	<1%	1%	<1%
25 - 34	10%	6%	3%	2%	3%	1%
Mid-stage						
35 - 44	14%	11%	10%	6%	5%	4%
45 - 54	23%	18%	16%	15%	14%	11%
55 - 64	22%	21%	23%	22%	22%	25%
Late stage						
65 - 74	17%	23%	24%	27%	26%	26%
> 74	12%	19%	24%	28%	30%	34%

Table 4.2. Percentage of Farmland Owners and Acres by Age and Lifecycle Stage, 2017

	Owners	Acres
Early stage		
< 25	<1%	<1%
25 - 34	2%	1%
Mid-stage		
35 - 44	7%	4%
45 - 54	16%	11%
55 - 64	25%	25%
Late stage		
65 - 74	25%	26%
> 74	26%	34%

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 method. The percentage of debt-free land increased substantially for those over 65 years old and only slightly for those in the 35–64 age bracket over the past five years. However, the percentage of debt-free land for people 34 years of age or younger declined to its lowest level on record. In 2017, 55 percent of the land in Iowa was owned by people over age 65 and debt free.

The percentages of land held under mortgage or contract decreased for all age categories over the last five years, reaching their lowest levels since 2002.

Considering the acreage and debt within each life stage, we find that the early life stage has the highest percentage of land under contract or mortgage across all categories, and the lowest percentage of debt-free land (Table 4.4). Mid-stage owners have 70 percent of their land debt free, and 27 percent under contract. The 65–80 age category owns 86 percent of their land debt free, and such share increases to 98 percent for those 81 years of age or older.

Table 4.3. Percentage of Farmland Owned by Age, Year, and Financing Method

	< 35				35 to 64				> 65			
	2002	**2007**	**2012**	**2017**	**2002**	**2007**	**2012**	**2017**	**2002**	**2007**	**2012**	**2017**
Free of debt	1%	1%	2%	<1%	29%	24%	26%	27%	43%	50%	50%	55%
Under contract	3%	< 1%	< 1%	< 1%	4%	3%	2%	1%	< 1%	< 1%	1%	< 1%
Mortgaged	2%	1%	2%	1%	16%	15%	12%	10%	4%	6%	6%	5%

Table 4.4. Percentage of Farmland Owned by Financing Method and Age, 2017

	<35	**35-65**	**65-80**	**>80**
Free of debt	20%	70%	86%	98%
Under contract	68%	27%	13%	1%
Mortgaged	12%	3%	1%	1%

Residency of Iowa Farmland Owners

Ownership of Iowa land by non-residents has been a concern of the Iowa General Assembly. Table 4.5 shows the percentage of farmland owned by full-time Iowa residents and all other owners (including part-time residents and non-residents). The share of Iowa farmland owned by full-time residents of the state has remained unchanged since 2012, at 80 percent. The most recent substantial change occurred between 1992 and 2002, when the share of full-time residents declined from 91 percent to 81 percent.

Table 4.5. Percentage of Iowa Farmland Owned by Residency Status

	1982	**1992**	**2002**	**2007**	**2012**	**2017**
Full-time Iowa resident	94%	91%	81%	79%	80%	80%
Part-time or not an Iowa resident	6%	9%	19%	21%	20%	20%

Owner Occupancy of Farmland

Another important aspect of ownership as a corollary to residency is whether the owner lives on the land being surveyed (Table 4.6). Most landowners live on the land surveyed or other farmland they own under a different ownership structure. The percentage of landowners living on land surveyed or other farmland they own remained relatively stable from 1992 to 2017. However, a 10 percent drop in farmland owned by those who live on their own farmland occurred between 1982 and 1992. The 2017 study shows that 55 percent of owners live either on the surveyed farmland or other farmland they own. The other 45 percent of Iowa farmland is owned by those who do not live on farmland.

Table 4.6. Percentage of Iowa Farmland by Owner Occupancy

	1982	1992	2002	2007	2012	2017
Lives on surveyed farmland	57%	48%	47%	46%	45%	44%
Lives on other owned farmland	6%	6%	8%	10%	8%	11%
Does not live on owned farmland	37%	46%	45%	44%	47%	45%

Education of Landowners

Table 4.7 shows the percentage of farmland based on the education levels of the owners. Education has been gradually increasing among farmland owners. This is illustrated by an increase from 1982 to 2017 of the percentage of farmland held by owners with a post-high school education. In the 2017 study, 12 percent of farmland was owned by people with a graduate degree. The percentage of land whose owners had a bachelor's degree has nearly tripled from 1982 to 2017, and land owned by those with some college experience increased significantly. During the same period, the percentage of farmland owned by high school graduates or those who did not complete high school decreased significantly. In 1982, almost two-thirds of the farmland (65 percent) was owned by those with a high school or pre-high school education. In 2017, only 35 percent of farmland was owned by people in those education categories and 39 percent of farmland was owned by people with at least a college degree. A trend reversal occurred between 2012 and 2017 in the percentage of farmland owned by those with some post-high school education, which declined for the first time since 1982.

Table 4.7. Percentage of Iowa Farmland Owned by Owner's Highest Completed Level of Formal Education

	1982	1992	2002	2007	2012	2017
< High school	17%	16%	7%	7%	4%	2%
High school	48%	42%	42%	38%	34%	33%
Some post high school	18%	24%	26%	27%	29%	25%
BS, BA, etc.	10%	9%	18%	19%	22%	27%
Graduate degree	7%	6%	7%	8%	11%	12%

Table 4.8 shows the percentage of acres and the percentage of owners based on the education level attained in 2017. The percentage of acres and the percentage of owners matches closely.

Table 4.8. Percentage of Iowa Farmland Owners and Acres by Owner's Highest Level of Formal Education, 2017

	Owners	Acres
< High school	3%	2%
High school	31%	33%
Some post high school	28%	25%
College degree	26%	27%
Graduate degree	12%	12%

Farming Status of Landowners

Respondents were directly asked if they farmed in 2017. As shown in Table 4.9, the majority of Iowa's farmland (57 percent) was owned by people who did not farm. However, the percentage of

farmland owned by full-time farmers has continued increasing since 2007, and the percentage of farmland owned by part-time farmers increased for the first time since 2002.

Respondents who said they did farm in 2017 were asked how many acres they farmed. Table 4.10 shows the distribution of the amount of farmland owned by those who said they farmed based on the total number of acres they reported farming. The highest percentages of owned farmland by active (full- and part-time) farmers are for those who reported farming a total of less than 400 acres, and they jointly own 27 percent of all Iowa farmland. Full-time farmers who reported farming more than 800 acres owned eight percent of all Iowa farmland.

Table 4.9. Distribution of Iowa Farmland by Farming Status of Owner

	2002	2007	2012	2017
Full-time farmer	23%	21%	23%	27%
Part-time farmer	21%	19%	15%	16%
Do not farm	55%	60%	62%	57%

Table 4.10. Distribution of Iowa Farmland by Acres Farmed and Farming Status of Farmer, 2017

	< 400	401 - 800	801 - 1200	> 1200
Full-time farmer	53%	17%	18%	11%
Part-time farmer	78%	16%	2%	4%

Table 4.11 also provided the breakdown of landowners by age and farming status. It shows that as landowners get older, the share of landowners who are farming full-time or part-time decreased. In particular, 86 percent of all land owned by landowners over 80 years of age were owned by someone who did not farm in 2017, while only 44 percent of the land owned by 35 to 64-year-old landowners was owned by non-farmers. However, it is important to note that 25 percent of all land owned by late-stage owners between 65 and 80 years old were still owned by full-time farmers, and another 15 percent by part-time farmers. This again highlights the aging landowner issue and challenges for beginning farmers and next-generation owners to access farmland.

Table 4.11. Distribution of Iowa Farmland by Age and Farming Status of Owner, 2017

	Full time farmer	Part time farmer	Do not farm
< 35	10%	34%	57%
35 - 64	37%	19%	44%
65 - 80	25%	15%	61%
> 80	7%	7%	86%

Marital Status of Landowners

The percentage of farmland by marital status changed only slightly in 2017 (Table 4.12). The percentage of land held by married persons decreased to 74 percent. At the same time, the percentage of farmland owned by those who are widowed increased to 18 percent. The differences are not considered significant and the distribution of farmland by marital status in 2017 is very similar to 1992.

Table 4.12. Distribution of Iowa Farmland by Owner's Marital Status

	1982	1992	2002	2007	2012	2017
Married	77%	75%	77%	74%	75%	74%
Widowed	14%	17%	15%	19%	17%	18%
Divorced	7%	3%	3%	5%	5%	6%
Single	2%	3%	4%	3%	3%	3%

Table 4.13. Distribution of Iowa Farmland Owners and Acres by Owner's Marital Status

	Owners	Acres
Married	78%	74%
Widowed	14%	18%
Divorced	5%	6%
Single	3%	3%

Table 4.13 shows the distribution of farmland and farmland owners based on marital status. Notice there is a greater difference between acres and owners when comparing based on marital status. Married couples have 74 percent of the land but account for 78 percent of landowners. Conversely, widowed owners have 18 percent of the farmland but account for just 14 percent of owners.

Gender of Landowners

The division of Iowa farmland by gender has remained relatively constant over the past few decades. In fact, the division found for 2017 is identical to the division found in 1982 (Table 4.14). Farmland owned by spouses is considered equally divided between them.

Table 4.15 shows the distribution of acres and owners by gender in 2017. In Iowa today, 53 percent of the farmland is owned by males. Females tend to own smaller amounts of land relative to their male counterparts. In 2017, females were 49 percent of owners but owned only 47 percent of land.

The distribution of Iowa farmland based on age and gender is shown in Table 4.16. Not surprisingly, the percentage of land owned by males and females increases from the early to the mid-stage category, and then again to the late-stage category (65 years of age and older). However, the percentage of land owned by males decreases from the mid-stage category to the 65–80 age cohort, while the percentage of land owned by females remains constant. Furthermore, the percentage of land owned by males decreases faster between the 65–80 age cohort and the 81 years old and older cohort than the percentage of land owned by females. Females own 60 percent of the land owned by those over 65 years of age.

Table 4.14. Distribution of Iowa Farmland by Gender

	1982	1992	2002	2007	2012	2017
Male	53%	51%	53%	53%	53%	53%
Female	47%	49%	47%	47%	47%	47%

Table 4.15. Distribution of Iowa Farmland Owners and Acres by Gender in 2017

	Owners	Acres
Male	51%	53%
Female	49%	47%

Table 4.16. Distribution of Iowa Farmland by Age and Gender in 2017

	< 35	35-64	65-80	> 80
Males	1%	23%	21%	8%
Females	<1%	17%	17%	14%

There are some striking differences between characteristics of male and female landowners. The female landowners are older on average—sixty-five percent of land owned by females is owned by those 65 years of age or older, compared to 55 percent of the land owned by males.

Summary

The 2017 survey covers the downturn in agricultural profitability and a declining Iowa farmland market following the boom years up to 2013. In general, for 2017, the amount of Iowa farmland owned by older landowners continued to increase. Changes in education level, occupation, and financing method reflect the change in age structure of farmland owners.

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

- The percentage of land held by older people continues to increase. Individuals more than 75 years of age owned 35 percent of Iowa farmland in 2017 compared with 30 percent in 2012, 24 percent in 2002, and just 12 percent in 1982. Individual owners over 65 years of age owned 60 percent of Iowa farmland in 2017, compared with 56 percent in 2012, 48 percent in 2002, and just 29 percent in 1982. The percentage of farmland owned by people between the ages of 65 and 74 actually decreased one percent from 2012 to 2017, accumulating a two percent decline since 2007.

- The elderly tend to own larger tracts. This can be seen comparing the percent of acres and the percent of owners. Landowners over the age of 75 represent 26 percent of the owners, yet they own 34 percent of the land. Landowners in the 35–54 age cohort represent 23 percent of the owners but only own 15 percent of the farmland.

- The majority of farmland in Iowa is held debt free (82 percent). This is contrasted with 1982 when just 62 percent of the farmland was held debt free, and in 2002 when that share amounted to 73 percent. The share of farmland with a mortgage dropped from 22 percent in 2002 to 16 percent in 2017. Over the same period, the amount of land under contract decreased from five percent to two percent.

- Among respondents, 80 percent of Iowa farmland is owned by those who consider themselves full-time residents of Iowa and 57 percent of the farmland is owned by those who reported they did not farm in 2017.

- The distribution of land between male and female owners has remained essentially unchanged over the past 35 years. Males have a slightly higher percentage of farmland than females. However, females own more land among the older landowners.

- Married persons owned 74 percent of Iowa farmland in 2017. Widowed persons owned 18 percent of the farmland.

5. Farmland Leasing

This chapter presents some general findings with respect to leased farmland. For a more complete discussion on the differences in leasing practices see Iowa State University Agricultural Decision Maker information files C2-15 (Survey of Farmland Leasing Practices) and C2-30 (Crop Share Leasing Provisions) available at: http://www.extension.iastate.edu/agdm. This website also contains the latest Iowa State University Extension rental information.

This chapter focuses on land that is not owner-operated. Three general lease categories are considered: (*a*) cash rent lease, including flexible cash rental agreement; (*b*) crop share lease; and, (*c*) other rental arrangements. It is recognized that many leases represent modifications of the traditional cash rent or share rent, but respondents were asked to characterize the lease on the basis of its predominant characteristics. Land farmed by a custom operator was not considered to be leased. Also, the incidence of other types of leases was extremely small. These mainly consisted of labor sharing or other similar arrangements. Because they were such a small percentage, and due to their individual characteristics, they will not be discussed in this chapter other than in the overall summary in Table 5.1. Farmland leased for non-agricultural purposes is also not considered in this report.

Land under Lease Agreements

A cash rental arrangement is one where the landowner receives a cash payment in exchange for the use of the land. These payments can be in any number of installments and may be flexible in total. All of this depends on the agreement between the tenant and landowner.

Crop share leases are the other major arrangement in the leasing of farmland. Under crop share leases, both owner and tenant share in the expense and/or income of the crop. Many different arrangements exist and are generally negotiated specifically between the two parties.

Table 5.1 shows the change in the distribution of leased farmland based on the type of lease used. In 1982, there was an equal distribution of farmland under crop share lease and cash rent lease arrangements. The use of cash rents increased substantially for the past few decades and this shift from crop share lease to cash rents continued over the past five years. In 2017, 82 percent of leased farmland was under a cash rent arrangement. In 1982, there was an equal distribution of farmland under crop share lease and cash rent lease arrangements. Notice that in Table 5.1 the use of some other types of leasing arrangements have been decreasing and, as noted, these will not be discussed further in this chapter. The other leases were equipment or labor sharing and mostly between family members.

Table 5.1. Percentage of Leased Iowa Farmland by Lease Arrangement

	1982	1992	2002	2007	2012	2017
Cash rent lease	49%	54%	69%	77%	77%	82%
Crop share lease	49%	44%	30%	22%	23%	18%
Other type of lease	2%	2%	1%	< 1%	< 1%	< 1%

In addition to the obvious differences between the two types of leases there are other fundamental differences that are considered when selecting the type of lease to use. The crop share lease splits the risk between the landowner and tenant, whereas a traditional cash rent lease has the farmer bearing all the production and marketing risks. This risk-sharing feature of the crop share arrangement makes it attractive to beginning farmers. Determining an equal distribution of the costs and/or revenues is an issue in a crop share lease. Trust is important in any leasing arrangement but it is especially critical in a crop share arrangement.

There are other differences between the two types of leasing arrangements. Which is a better arrangement depends on the individual circumstances. Table 5.1 reveals a continuation of the shift from crop share to cash rent. Major reasons for these changes include the aging farmland owner, increasing farm size, and the shift toward more land being owned by people living outside of Iowa. This could also be partly related to recent low-to-negative margins in crop production making sharing of yields or profits challenging. One important feature is the relative ease of using the cash rent. As tenants have more landowners, and vice versa, it is simply easier to remember a dollar amount than a division, especially if it involves dividing the crop. With the increase in non-resident owners cash rent is more appealing because of the ease of exchanging money rather than bushels for payment.

A trend that is related to this shift from crop share to cash rent is the increasing use of flexible cash leases, which accounted for 18 percent of all cash rented acres. Although the acres involving flexible cash leases remained flat, the characteristics of flexible cash rental leases have experienced significant shifts—in 2017 about two-thirds of the flexible leases used both price and yield to determine the rental payment, while only four percent of the flexible cash rents used only yield for the rent payment determination. Please see Ag Decision Maker File C2-15 for more details.

Ownership Type and Leasing

Table 5.2. Distribution of Leased Farmland by Ownership Type and Type of Lease, 2017

Ownership Type	Cash Rent	Crop Share	All Leased Acres
Sole owner	25%	22%	25%
Joint tenancy	17%	16%	17%
Tenancy in common	5%	7%	6%
Partnership	3%	2%	2%
Estates	5%	3%	4%
Trusts	28%	36%	29%
Corporations	9%	10%	9%
LLC	7%	5%	7%

Table 5.2 shows ownership type and their lease methods. Sole owners own 25 percent of Iowa farmland that is leased, based on the 2017 study. Joint tenancy and trusts are the next two most common types of leased land ownership. Although trusts only accounted for 20 percent of farmland in Iowa in 2017, these represent 29 percent of all leased acres. There is not a great difference between the types of ownership and the two primary lease types. The biggest differences are found

with the sole owners, trusts and tenants in common. For sole owners and tenants in common cash rent is the preferred method, whereas for trusts crop share is the preferred method of leasing.

Age and Leasing

Landowners 65 years of age and older own 73 percent of all leased farmland in 2017, which represents a continuous increase from 68 percent five years ago. The type of lease does not vary greatly depending on the age of the land owner. The notable exceptions are for landowners 65–74 years old, crop share seemed to dominate, but the trend switched to cash rent for owners 75 years of age and older. These estimates are contained in Table 5.3.

Table 5.3. Percentage of Iowa Farmland by Age of Owner and Type of Lease, 2017

Age of Owner	Cash Rent	Crop Share	All Leased Acres
< 25	<1%	<1%	<1%
25 - 34	1%	<1%	1%
35 - 44	1%	2%	1%
45 - 54	8%	7%	8%
55 - 64	18%	18%	18%
65 - 74	23%	32%	25%
> 74	49%	41%	48%

Gender and Leasing

Gender is cross-tabulated with lease methods in Table 5.4. The percentage of leased land by gender shows almost an identical division to all farmland in general. Females own 55 percent of all the acres that are leased versus 47 percent of all farmland acres in 2017. Interestingly, 60 percent of all crop share acres were owned by a female landowner.

Table 5.4. Percentage of Iowa Farmland by Gender of Owner and Lease Type, 2017

Gender	Cash Rent	Crop Share	All Leased Land
Male	47%	40%	45%
Female	53%	60%	55%

Regional Distribution of Leased Land

In order to get a better idea of how much land is leased in each region, regional estimates were generated at the crop reporting district level (Table 5.5). The estimated percentage of land leased by crop reporting districts can be compared with the 53 percent shown in Table 3.3 for the entire state. The results reveal that the Northern and Central districts tend to see a higher percentage of farmland being rented, which is likely a reflection of greater concentration of high-quality grounds and higher land value. The percentage of total farmland leased tends to follow the value per acre. District differences will be discussed in more detail in Chapter IX.

Table 5.5 also provides a breakdown of the use of cash rent versus crop share for leased acres, and these results could be compared against the state average statistic that 82 percent of all leased acres were via cash rent. Interestingly, 30 percent of all leased acres in the West Central and Southwest districts were crop share leased, which is much higher than the state average. In contrast, Northeast and East Central Iowa has less than 10 percent of all leased acres rented out via a crop share lease. These regional differences could be a result of regional-specific production structure and land use patterns.

Table 5.5. Distribution of Leased Iowa Farmland Based on Crop Reporting District and Tenure, 2017

	North-west	North Central	North-east	West-central	Central	East Central	South-west	South Central	South-east
Crop share	17%	14%	5%	30%	21%	8%	31%	16%	13%
Cash rent	82%	86%	95%	70%	79%	92%	69%	84%	87%
Percent of district farmland leased	61%	70%	42%	59%	55%	49%	48%	47%	29%

Education and Leasing

Table 5.6. Percentage of Leased Farmland by Owner's Education Level and Type of Lease, 2017

	Cash Rent	Crop Share	All Leased Acres
< High school	4%	2%	3%
High school	39%	17%	31%
Some post high school	27%	22%	23%
College degree	30%	35%	28%
Graduate degree	15%	24%	15%

Iowa farmland owners with graduate degrees own 15 percent of leased farmland in 2017, while those with less than a high school education own three percent. Estimates for the type of lease cross-tabulated with owner's education level are found in Table 5.6. This table includes only those individuals where an education level was identified or was appropriate. The level of education among land owners has changed over time similar to the general population, and over time we see an increase in education level among landowners since the 1980s.

Owner Occupancy of Leased Farmland

Table 5.7 shows that full-time Iowa residents owned 72 percent of all leased farmland. Nonresidents had a higher percentage of the crop share leased land relative to the amount of the cash rented land they owned. Almost one-third of all crop share leased acres were owned by someone who does not live in Iowa. This could be driven by several factors—crop share leases tend to be a longer-term relationship with an existing tenant, and women landowners and senior landowners have disproportionally higher percent of crop share leased land, which remained true when they moved out of state. Percentage of leased farmland based on residency is very similar to the distribution found for all farmland shown in Table 4.5.

Table 5.7. Percentage of Iowa Land by Residency of Owner and Leasing Relationship, 2017

Iowa Residency	Cash Rent	Crop Share	All Leased Land
Live in Iowa full time	76%	57%	72%
Live in Iowa part time	10%	9%	10%
Do not live in Iowa	14%	33%	18%

Length of Tenant's Tenure

Another area of interest is the length of tenure of Iowa farmland tenants. This represents the relationship between a landowner and a tenant, which could be longer than the length of lease. Concern has been expressed that a shorter length of tenure could have a deleterious effect on soil conservation and may affect the way the land is farmed. A person with a short tenure horizon is thought to be less likely to practice good conservation measures. Estimates for the length of tenancy by lease type are provided in Table 5.8. Cash-rent landowner-tenant relationships have been in place fewer years than those for crop share. Leases on 41 percent of the cash rented land have been in effect for more than 10 years, in comparison to 68 percent for crop-share leases. Regardless of the type of lease, the majority of leases have been in effect for over five years.

Table 5.8. Percentage of Leased Iowa Farmland Based on Length of Tenancy and Type of Lease, 2017

Years	Cash Rent	Crop Share	All Leased Land
1	6%	6%	6%
2 to 5	23%	11%	21%
6 to 10	31%	15%	28%
11 to 20	24%	43%	27%
> 20	17%	25%	18%
Average	11.6	14.4	12.1

Financing and Leasing

Table 5.9 can be contrasted with Table 3.5, the percentage of Iowa farmland by finance method. While 82 percent of all farmland is debt free, 95 percent of leased land is debt free. Sixteen percent of farmland is mortgaged, but less than one percent of leased farmland is mortgaged. Also, 99 percent of crop share acres are free of debt. These numbers show that unencumbered land is more likely to be leased.

Table 5.9. Percentage of Leased Iowa Farmland by Financing Method and Type of Lease, 2017

	Cash rent	Crop share	All rented acres
Free of debt	93%	99%	95%
Under contract	9%	< 1%	4%
Mortgaged	< 1%	< 1%	< 1%

Percent of Household Income from Agriculture and Leasing

Table 5.10 presents the breakdown of Iowa landowners into five ranges for the percentage of income that comes from farming and by tenure of land. Importantly, we find that almost two-thirds of leased acres have landowners for whom 40 percent or less of their household income is from farmland rental income for the 2016 production year. However, this could also be influenced by reduced commodity prices and low-to-negative profit margins for 2015 and 2016.

Table 5.10. Distribution of Leased Iowa Farmland by Percent of 2016 Household Income from Agriculture, 2017

	Cash Rent	Crop Share	All Leased Acres
10 % or less	27%	35%	29%
11 - 40 %	34%	44%	35%
41 - 75 %	23%	6%	20%
76 - 99 %	8%	15%	9%
100 %	8%	1%	6%

Farming Status and Leasing

Table 5.11 breaks down leased acres by farming status. Over 80 percent of leased acres belong to landowners who do not farm, and only six percent was owned by someone who farms full time. This does not vary much between cash-rent and crop-share acres.

Table 5.11. Percentage of Leased Iowa Farmland by Leasing Type and Farming Status, 2017

	Cash rent	Crop share	All leased acres
Full time	6%	8%	6%
Part time	8%	9%	8%
Do not farm	86%	83%	86%

Summary

This chapter analyzed leased land, land that is not owner operated, and the characteristics of the owners of leased land. A more complete summary of the lease characteristics can be found in Iowa State Extension and Outreach publication Ag Decision Maker information file C2-15. This study is available on the Agricultural Decision Maker web site: https://www.extension.iastate.edu/agdm/wholefarm/html/c2-15.html.

The following are some of the highlights of leased land:

- Cash rental arrangements continue to be the predominant choice of landowners, totaling 82 percent of all leased land.
- Although trusts only account for 20 percent of farmland in Iowa, they represent 29 percent of all leased acres.
- Individual owners aged 65 years and older own 73 percent of leased farmland.

- Females own 55 percent of the leased farmland in Iowa, which increased from 52 percent in 2012.
-
- Nonresidents of Iowa own 21 percent of the leased farmland.
-
- Land free of debt is more likely to be leased than land being financed.
-
- There has been an increasing use of flexible cash lease agreements. These arrangements are variable with respect to provisions but the majority of them will flex based on both yield and/or prices.
-
- Crop share leased farmland agreements were in place an average of three years longer than the cash leased land, with over half of crop share leases rented out to the same tenant for over a decade.
-
- Eighty-six percent of leased acres in Iowa belong to landowners who currently do not farm.

6. Anticipated Transfer Methods of Farmland Ownership

Farmland owners were asked about the anticipated future transfer of their farmland. These transfer plans may change in response to many different factors, both economic and noneconomic. Therefore, the answers reflect situations existing at the time of the study. It is important to note that the results below reflect the intentions or plans of landowners' future farmland transitions or transfers rather than actual land transitioned or transferred.

The previous land ownership studies all asked respondents how they anticipated transferring farmland. Respondents indicated they planned to use multiple disposal methods. The results were weighted to determine the percentage of farmland using the various transfer methods.

Table 6.1 shows that willing the land to family is still the most popular anticipated method for transferring farmland in Iowa. This method of land transfer also showed the largest decline from 2012. On the opposite side of the spectrum, putting land in a trust showed the largest increase over the past five years, and became the second-most preferred method of disposal.

It is interesting to note in Table 6.1 that nearly two-thirds (65 percent) of the farmland is anticipated to be transferred within the family. This share is likely much higher when considering the majority of trusts are "revocable trusts" that will eventually transfer ownership to family members.

Table 6.1. Anticipated Transfer Method by Percentage of Farmland

	1982	1992	2002	2007	2012	2017
Will to family	48%	49%	39%	43%	63%	40%
Will to others	<1%	1%	2%	1%	1%	2%
Give to family	5%	4%	12%	10%	9%	14%
Give to others	<1%	<1%	1%	1%	1%	1%
Sell to family	12%	7%	12%	10%	8%	11%
Sell to others	13%	10%	9%	8%	7%	7%
Put in trust	6%	14%	13%	18%	10%	26%
Other	16%	16%	12%	10%	1%	0%

Table 6.2 shows the impact the age of the landowner has on the anticipated transfer method. Not only does the anticipated transfer method change with circumstances, but it will also change as the landowner ages. With the exception of the two youngest and the oldest categories, the percentage of farmland anticipated to be willed to the family is relatively stable, between 36 and 38 percent of the land in each age cohort. For those age cohorts, the overall ranking of stated preferences in terms of percentage of farmland by anticipated transfer method is relative stable and consistent across cohorts.

Give to family, and sell to family or others, are more prominent anticipated transfer methods for the two youngest age cohorts than for the other age cohorts. In contrast, for landowners 75 years of age or older, the most common transfer plans were willing to family or putting the land in a trust.

Table 6.2. Percentage of Iowa Farmland Based on Anticipated Transfer Method by Age, 2017

	< 25	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	> 74
Will to family	20%	32%	38%	36%	38%	38%	46%
Will to others	<1%	<1%	2%	3%	2%	1%	1%
Give to family	20%	32%	17%	16%	13%	14%	12%
Give to others	20%	7%	<1%	2%	1%	1%	0%
Sell to family	20%	<1%	11%	13%	12%	9%	9%
Sell to others	<1%	2%	6%	6%	7%	7%	5%
Put in trust	20%	20%	24%	21%	27%	28%	25%
Other	<1%	7%	<1%	3%	1%	1%	2%

Table 6.3. Percentage of Iowa Farmland by Whether the Owner Thinks Land Transfer Will Happen in the Next Five Years, 2017

Yes	13%
No	35%
Already in trust	15%
NA, not going to transfer land	26%
Don't know/refuse to answer	11%

Table 6.4. Percentage of Iowa Farmland by Anticipated Transfer Method and Whether the Farmer Thinks the Transfer Will Happen in the Next Five Years, 2017

	Yes	No	Already in trust	NA, not going to transfer land	Don't know or did not answer	Percent of total farmland
Will to family	12%	39%	10%	30%	9%	40%
Will to others	11%	62%	<1%	6%	21%	2%
Give to family	18%	61%	8%	<1%	13%	14%
Give to others	18%	70%	12%	<1%	0%	1%
Sell to family	24%	55%	6%	<1%	15%	11%
Sell to others	27%	53%	8%	<1%	13%	7%
Put in trust	16%	48%	27%	<1%	10%	26%
Other	29%	37%	10%	<1%	24%	<1%

Tables 6.3 and 6.4 provide more details on the timing of the anticipated transfer. In particular, Table 6.3 shows that across all land transfer plans, only 13 percent of Iowa farmland potentially will be transferred within the next five years. Table 6.4 provided additional information on the timing of anticipated transfer by the anticipated land transfer method. Specifically, the results show that the majority of landowners who plan to will or give to family members do not anticipate the transfer to happen within the next five years. For the seven percent of Iowa land potentially available for sale to others, only 27 percent of these land transfers were anticipated to occur in the next five years, which means that over the next five years, the landowners anticipate the percent of all acres potentially available for purchase by non-family members could be as low as less than two percent, assuming no immediate sales from inherited land.

Table 6.5 presents the percent of farmland based on the primary reason for owning the land. The most cited reason to own land continues to be primarily for current income. However, the percentage

of farmland owned primarily for current income declined from 56 percent in 2012 to 49 percent in 2017, in tandem with the overall tightening of profit margins in agriculture. Conversely, the percentage of farmland owned for family or sentimental reasons increased from 22 percent to 29 percent over the same period. Nineteen percent of the farmland is owned for long-term investment. These three categories represent 97 percent of the farmland based on the primary reason for owning the land.

Table 6.5. Percentage of Farmland by Primary Reason for Owning Farmland, 2012 and 2017

	2012	2017
Current income	56%	49%
Long-term investment	19%	19%
Family or Sentimental	22%	29%
Home	1%	2%
Recreation	1%	1%
None given	1%	1%

It is not possible to say precisely what impact the primary reason for owning the land would have on the anticipated transfer method. However, given that income and long-term investments represent a significant portion of farmland it is more likely that the land will be held until death. If this is true, the choice of transfer methods will be impacted.

Many factors influence the current owner's anticipated transfer methods. Recently, there has been considerable discussion on the impact of capital gains tax and sale of farmland. The basic contention is that if the tax were removed landowners would be more likely to sell their land. The 2017 survey asked landowners who anticipated selling land to family or others (jointly accounting for 18 percent of Iowa farmland) about the factors that would trigger the sale. Table 6.6 presents the answers to the question: "Which one of the following factors would be most likely to prompt you to sell some or all of your farmland?"

Sixty-nine percent of the farmland owned by people who anticipate transferring land ownership through a sale to family or others had no plans to sell land in 2017. Only 18 percent of the subset of land selected for this question would be offered for sale under all possible hypothetical factors, accounting for only three percent of all Iowa farmland. Retirement from farming has the highest potential to trigger land sales, accounting for seven percent of the selected subset and only slightly more than one percent of all Iowa farmland.

Survey results indicate that the elimination of step-up basis tax benefits for heirs has the same potential to generate land sales as does a higher selling price per acre or personal reasons such as a family financial emergency or the death of one of the other owners. Each of these three factors would trigger sales of about one-half percentage point of all Iowa farmland. Lower capital gains tax rate would trigger sales in an even smaller percentage of all Iowa farmland. In summary, the potential impact of capital gains tax and step-up basis tax benefits for heirs on farmland sales are minimal, according to this survey.

Table 6.6. Percentage of Iowa Farmland Anticipated to be Sold to Family or Others by Factor Prompting Owner to Sell Land, 2017

Nothing. Decision will be made by heirs	2%
Lower capital gains tax rate	2%
Higher selling price per acre	3%
Retirement from farming	7%
Elimination of step-up basis tax benefits for heirs	3%
Sale is in process	1%
Personal reasons	3%
Not planning to sell	69%
Don't know	9%

Summary

This chapter discussed anticipated methods to transfer farmland and the primary reasons for owning the land. The trends are summarized as follows:

- The most frequently anticipated method of transfer is the willing of land to family members, representing 40 percent of the farmland. Over the past five years, this method has decreased in importance. Putting the land in a trust has increased significantly, going from 10 percent of the land in 2012 to 26 percent of the land in 2017. Giving land to the family has also increased over time, increasing from nine percent to 14 percent over the same period.

- Across all land transfer plans, only 13 percent of Iowa farmland potentially will be transferred within the next five years

- The age of the farmland owner did not have significant impact on the anticipated transfer method with the exception of the youngest and oldest owners. The youngest owners anticipated selling or giving the land to family the most. This may be due to age or it may simply be a reflection that this age cohort represented a very small portion of the farmland owned. The oldest owners had a stronger preference to will their land to family.

- Income, family, and long-term investment were the most frequently given reasons for owning land. The percentage of land owned for current income declined and the percentage of land owned for family reasons increased between 2012 and 2017.

7. Conservation and Easement Programs and Conservation Practices

Conservation Programs

There are a variety of conservation programs available to Iowa farmland owners. In addition, easements, giving up part of the use rights to the land, may be granted. This chapter summarizes the use of these programs on Iowa farmland.

The Conservation Reserve Program (CRP) is the most extensively used conservation program. There are other government conservation programs, including the Conservation Stewardship Program (CSP), but they are used considerably less than CRP.

The 2017 land ownership survey asked participants whether or not the land was in CRP or another government conservation program. As was shown in Table 3.1, approximately eight percent of all Iowa farmland was in some form of conservation program in 2017.

Table 7.1 compares the percentage of total farmland with the percentage of acres in CRP or other government conservation programs by ownership type in 2017. The biggest difference found between the conservation farmland and all farmland is the percentage owned by joint tenants. Joint tenants own 27 percent of all farmland, but they own 36 percent of the conservation acres. Land held in trusts showed a lower percentage in government conservation programs relative to total farmland owned.

Table 7.1. Percentage of Iowa Farmland and Percentage in Government Conservation Programs by Ownership Type, 2017

Ownership Type	All Farmland	Farmland in Government Conservation Programs
Sole owner	22%	14%
Joint tenancy	27%	36%
Tenancy in common	8%	11%
Partnership	3%	1%
Estates	4%	8%
Trusts	20%	24%
Corporations	10%	5%
LLC	5%	2%

Table 7.2 presents the distribution of conservation acreage compared to that of total farmland, by age. Landowners 65 years of age and over heavily use conservation programs, accounting for two-thirds of conservation acres while controlling 60 percent of farmland. In contrast, owners between 55 and 64 years of age own one quarter of farmland but only 18 percent of the acres in government conservation programs. There is not a notable difference in the distribution of government conservation acres by gender compared to the distribution of farmland, as is shown in Table 7.3.

Table 7.2. Percentage of Iowa Farmland and Percentage in Government Conservation Programs by Age, 2017

	All farmland	Farmland in government conservation programs
< 25	< 1%	< 1%
25 - 34	1%	< 1%
35 - 44	4%	4%
45 - 54	11%	11%
55 - 64	25%	18%
65 - 74	26%	31%
> 74	34%	35%

Table 7.3. Percentage of Iowa Farmland and Percentage in Government Conservation Programs by Gender, 2017

	All farmland	Farmland in Government Conservation Programs
Male	53%	52%
Female	47%	48%

Table 7.4 shows the percentage of land in government conservation programs by whether the owner thinks a land transfer will occur in the next five years. Only 11 percent of owners who have conservation acres think that the land will be transferred during the next five years, with an additional 20 percent owning land that is already in a trust.

Table 7.4. Percentage of Farmland in Government Conservation Programs by Whether Owner Thinks Land Transfer Will Happen within Five Years, 2017

Yes	11%
No	35%
Already in a trust	20%
Not going to transfer land	27%

Conservation Practices

Table 7.5. Percentage of Iowa Farmers and Farmland That Use Various Conservation Practices, 2017

	Owners	Acres
No till	21%	27%
Cover crops	5%	4%
Buffer strips	3%	3%
Pond or sedimentation basin	1%	2%

Table 7.5 looks at landowners' use and acreage enrollment in various conservation practices. The most commonly used practice is no till, which is used on 27 percent of acres. Cover crops are used on four percent, buffer strips on three percent, and ponds or sedimentation basins on two percent of acres.

Conservation practices differ geographically across Iowa. Table 7.6 shows the proportion of farmland in various conservation practices by Crop Reporting District. No till was most widely used in the Southwest (56 percent of acres) and least in the North Central (eight percent of acres). The Southeast had the largest proportion of land in cover crops at 12 percent.

Table 7.6. Distribution of Iowa Farmland under Conservation Practices by Crop Reporting District, 2017

	NW	NC	NE	WC	C	EC	SW	SC	SE	State
No till	16%	8%	19%	40%	29%	33%	56%	26%	26%	27%
Cover crops	< 1%	1%	8%	5%	2%	2%	4%	7%	12%	4%
Buffer strips	2%	6%	6%	1%	4%	4%	3%	3%	3%	3%
Ponds	< 1%	< 1%	2%	1%	0%	2%	1%	5%	3%	2%

In addition, we look at how policy changes could influence landowners' likelihood of adopting conservation practices (Table 7.7). First, the plurality of land owners stated they were not at all likely to adopt more conservation practices if land enrolled in conservation programs was excluded from the value of their estate for estate tax purposes, with only 11 percent stating they would be very likely to enroll more land. More respondents were favorable to enrolling more land in conservation programs in the event that tax-free cost sharing assistance were available, with 21 percent stating they would be very likely to do so; in contrast, 24 percent answered they would not be at all likely to do so. However, landowners were more favorable to increasing conservation efforts under the policy in which they could get tax credits or deductions for implementing them, with 24 percent stating they would be very likely to enroll more land and only 16 percent not at all likely.

Table 7.7. Percentage of Iowa Farmers by Likelihood of Adopting Conservation Practices under Various Scenarios, 2017

	Estate tax	Cost share	Tax credits
1 = Not at all likely	27%	24%	16%
2	10%	5%	6%
3	25%	20%	21%
4	11%	15%	21%
5 = Very likely	11%	21%	24%
Unsure	15%	16%	13%

Table 7.8 presents owners' willingness to help tenants increase cover crop use. The survey asked landowners whether they would be willing to pay a portion of costs to plant cover crops. Twenty percent said they would, with the most common portion being 50 percent of the cost. It also asked whether the landowner would accept lower cash rent or lower portion of income from crop share if the tenant planted cover crops. Ten percent stated they would, and 10 percent less rent was the most chosen amount. Lastly, it asked whether landowners would increase the length of the lease if the tenant adopted more cover crop acreage. Five percent stated they would, with the predominant quantity being five years.

Table 7.8. Percentage of Owners by Willingness to Encourage Tenant to Adopt Cover Crops, 2017

	Pay for a portion of planting cost	Lower rent	Longer lease
Yes	20%	10%	5%
No	25%	7%	9%
Maybe	16%	1%	3%

Easements

Landowners sometimes transfer certain rights associated with their land to others. In some cases, this is actual use of the land while in others it is merely access to the land.

The 2017 survey asked landowners if they had transferred rights to their land. This was a yes/no type of question and did not ask the amount of land for which the easement was granted. Table 7.9 shows the amount of land owned by those who reported granting an easement and the types of easements granted. Again, the percentage of farmland listed is the percentage of all farmland owned by those granting the easement, not the amount of easement themselves. Seventeen percent of land were owned by owners who stated that they transferred some rights, with wind easements being the most commonly granted.

Table 7.9. Percentage of Farmland Owned by Those Who Indicated Transfer of Some Rights, 2017

	2012	2017
Any rights transferred	16%	17%
Wind	5%	6%
Oil gas		4%
Other right		5%

Private Conservation Programs

Some private groups offer easements on farmland for conservation purposes. These can be for wildlife habitat, farmland preservation, or other activities. Table 7.10 shows the extent of use of non-governmental easements. Less than one percent of Iowa farmland was in these types of easements based on the 2017 survey.

Table 7.10. Percentage of Iowa Farmland in Private Conservation Programs

	2012	2017
Total land in private conservation programs	0.5%	0.3%

Summary

- Government conservation programs remain popular among landowners. About eight percent of all Iowa farmland is enrolled in a government conservation program, with the Conservation Reserve Program (CRP) still the most extensively used program.

- There were some differences in participation in government conservation programs based on farm business organization, age of farmland owners, and location. In particular, land held in joint tenancy or tenancy in common, and land owned by landowners 65 years old or older were more likely to be enrolled in government conservation programs. Gender was not a factor in whether or not farmland was enrolled in the government programs.

- No-till and cover crops were used on 27 percent and four percent, respectively, of Iowa farmland as of July 2017, with cover crops more prevalent in Northeast, South Central and Southeast Iowa and no-till most common in West Central and Southwest Iowa.

- Twenty percent of Iowa landowners expressed willingness to pay a portion of the costs to plant cover crops on their leased land, and 10 percent and five percent would consider lower rent or longer leases, respectively.

- Private conservation programs were not widely used in Iowa.

- Wind easements are the most common easements granted in Iowa.

8. Regional Analysis

This chapter presents the regional differences for land ownership and tenure in Iowa and presents the comparisons based on the USDA Crop Reporting Districts. The tables from earlier publications can be found in Appendix A. The counties in the Crop Reporting Districts and each region are listed and shown in Figures 2.1 and 2.2 on pages 10–11.

The percentage of farmland in each district and the state average by ownership type is shown in Table 8.1. There are some regional differences observed. Farmland in the Northeast district has more land held as joint tenancy than in all other districts, while the West Central district has the highest percentages of land held as sole owner and in trusts. The use of trusts is considerably lower in the Northeast and Southeast districts. Joint tenancy and sole ownership jointly account for 42–67 percent of the land in each district.

Table 8.1. Percentage of Farmland by Crop Reporting District and Ownership Type, 2017

Ownership Type	NW	NC	NE	WC	C	EC	SW	SC	SE	STATE
Sole owner	3%	2%	3%	4%	3%	3%	2%	1%	2%	22%
Joint tenancy	3%	3%	5%	3%	3%	3%	2%	3%	3%	27%
Tenancy in common	1%	1%	1%	1%	2%	1%	0%	0%	0%	8%
Partnership	0%	0%	0%	0%	0%	0%	0%	1%	1%	3%
Estates	0%	1%	0%	1%	0%	0%	0%	1%	0%	4%
Trusts	3%	3%	1%	4%	2%	2%	3%	2%	0%	20%
Corporations	2%	1%	1%	1%	2%	1%	1%	1%	1%	10%
LLC	1%	1%	1%	1%	0%	1%	0%	0%	1%	5%
Percent of Land in District	13%	12%	12%	14%	13%	10%	9%	8%	8%	100%

Table 8.2. Percentage of Leased Iowa Farmland by Crop Reporting District and Tenure, 2017

	NW	NC	NE	WC	C	EC	SW	SC	SE	STATE
Crop share	17%	14%	5%	30%	21%	8%	31%	16%	13%	17%
Cash rent	82%	86%	95%	70%	79%	92%	69%	84%	87%	83%
Flexible cash rent	23%	12%	13%	18%	21%	5%	0%	16%	13%	17%
Percent of farmland leased	61%	70%	42%	59%	55%	49%	48%	47%	29%	53%

Table 8.2 presents a summary of the rented land by region. In the Northwest, North Central, and West Central districts over 59 percent of the land was rented. Whereas in the Northeast and Southeast districts less than 43 percent of the land was rented. Cash rent leases account for more than 79 percent of all rented farmland across all districts but the West Central and Southwest districts, where crop share is more prevalent than in the other districts. Flexible cash rent lease agreements account for less than 20 percent of all leased acres across all districts except for the Northwest and Central districts, where they account for 23 percent and 21 percent of rented land, respectively.

Table 8.3 shows the percentage of farmland by district and farming status. The regions with the highest percentage of rented land were also the regions with the highest percentage of land owned by those who did not farm in 2017. Almost 70 percent of the land in the Northwest and North Central districts was owned by those who did not farm. The lowest percentage of land owned by non-farmers was in the Southeast district at 45 percent. Full-time farming accounts for more that 56 percent of all actively farmed acres in all districts except the South Central district, where it accounts for only 41 percent of all actively farmed acres.

Table 8.3. Distribution of Iowa Farmland by Crop Reporting District and Farming Status, 2017

	NW	NC	NE	WC	C	EC	SW	SC	SE	STATE
Farm full time	26%	16%	29%	22%	25%	29%	31%	18%	38%	27%
Farm part time	8%	8%	13%	17%	13%	22%	15%	26%	17%	16%
Do not farm	66%	76%	58%	60%	62%	49%	54%	55%	45%	57%

Summary

Some differences with respect to land ownership do exist across Iowa. For the most part, however, the major trends identified in earlier chapters are maintained even at the district level. It is important when reviewing the district summaries to remember that the number of observations in each district is smaller and thus wider swings in results can be expected. The statistical sampling procedure explained in Appendix A allowed for these differences. Nonetheless, it is still in the reader's best interest to remember there is a wider variation in the regional estimates as compared to the state estimates.

- The farming status of landowners vary significantly across crop reporting districts. More than half of the farmland in seven districts is owned by people who do not farm, but the percentages vary substantially across districts, from 76 percent in the North Central district to 45 percent in the Southeast district. Full-time farming accounts for more that 56 percent of all actively farmed acres in eight districts, but the percentages go from 76 percent in the Northwest district to 41 percent in the South Central district.

- Cash rent leases dominate all crop reporting districts, ranging from 95 percent of the land leased in the Northeast district to 69 percent in the Southwest district.

- Joint tenancy and sole ownership were found to jointly account for 42–67 percent of the land in each district.

9. Cooperatives

With support from the CoBank Fund for Excellence in Cooperative Economics, a gift to ISU CALS directed by Dr. Keri Jacobs, the 2017 survey added questions on the use of agricultural cooperatives by landowners of Iowa farmland to purchase production inputs, market crops or livestock products, and use custom services of cooperatives. Unlike other agribusinesses, agricultural cooperatives (also known as ag co-ops) are owned and controlled by their members, and return surplus revenues to members based on how much business they conduct with the co-op. While co-ops are businesses that must remain profitable, their primary mission is to serve their members with the services and/or products the members need. Through formation of a cooperative, producers leverage their aggregate size to enhance their bargaining power with buyers and more effectively market their products.

The 2017 survey results provided details on how agricultural cooperatives were used on Iowa's farmland. Table 9.1 shows that approximately 30 percent of Iowa's land used inputs purchased from a cooperative, marketed grains or livestock products through a co-op, and used custom services of cooperatives in 2017, including custom spraying or fertilizer application. This use represented roughly, across all land-owner types, approximately 24 percent of all land owners. In particular, approximately 29 percent of all acres used crop inputs purchased from a cooperative in Iowa, 30 percent of land production was marketed through a cooperative, and 29 percent of acres used co-op's custom services.

Crop share leased land and owners who rent land out via crop share were most likely to market their products through a cooperative, while cash rent leased acres and owners who cash rent used cooperative services and inputs less intensively.

Table 9.1. Cooperatives' Market Share across Acres and Owners

	Acres				Owners			
	All	Owner-Operator	Cash Rent	Crop Share	All	Owner-Operator	Cash Rent	Crop Share
Share of inputs bought from Co-op	29%	35%	21%	38%	24%	31%	15%	31%
Share of products marketed through Co-op	30%	33%	19%	59%	26%	28%	16%	60%
Share of acres custom applied by Co-op	29%	35%	22%	35%	22%	27%	17%	29%
Share of land or owners by leasing		46%	43%	9%		52%	40%	6%

Rather than focusing on the percentage of acres relying on services provided by an agricultural cooperative, Table 9.2 re-classifies the results to examine whether the owner used cooperatives at least for a portion of the land they owned. This re-classification shows that about 44 percent of all acres in Iowa and 32 percent of landowners in Iowa used a co-op to market grain or livestock, purchase inputs, or for custom services on some of their land in 2017. Furthermore, land that was cash rented and owners that have cash rent contracts were less likely to use a cooperative in these ways, 65 percent of owners who crop share their land market at least a portion of their crops through a cooperative, and 68 percent of land controlled via crop share markets at least a portion of the crop through a cooperative.

Table 9.2. Acres and Owners Use of a Cooperative

	Acres				Owners			
	All	Owner-Operator	Cash Rent	Crop Share	All	Owner-Operator	Cash Rent	Crop Share
Bought inputs from a co-op	44%	58%	28%	56%	34%	45%	19%	51%
Market products through a co-op	40%	49%	25%	68%	32%	35%	20%	65%
Custom applications via a co-op	39%	50%	27%	44%	30%	36%	21%	34%
Share of land or owners by leasing		46%	43%	9%		52%	40%	6%

Table 9.3. Cooperative Usage by Crop Reporting District

	All	NW	NC	NE	WC	C	EC	SW	SC	SE
Share of inputs bought from Co-op	29%	30%	28%	40%	28%	28%	27%	31%	21%	22%
Share of products marketed through Co-op	30%	45%	31%	24%	39%	38%	20%	22%	16%	15%
Share of acres custom applied by Co-op	29%	37%	35%	34%	27%	27%	27%	31%	15%	23%
Share of land in crop reporting district		13%	12%	12%	14%	13%	10%	9%	8%	8%

Finally, it is important to note that agricultural cooperatives are not equally distributed across the state, and thus it is intuitive to expect more intensive use of cooperatives in areas with greater

concentration of cooperatives. Table 9.3 examines the different usage of cooperatives by crop reporting districts, and the results confirmed this intuition—40 percent of acres in the Northeast district purchased inputs from a cooperative, while the least amount on a per-acre basis was purchased in the South Central and Southeast Iowa districts, 21 percent and 22 percent, respectively. Production from 45 percent of acres in the Northwest district were marketed through a cooperative compared with 15 percent in the South Central and Southeast districts. By contrast, the West Central and Central districts market slightly less than 40 percent of acres through co-ops. Finally, slightly more than one-third of acres in Iowa's three northern districts used custom application services by cooperatives due to the prevalence of co-ops, compared to only 15 percent in the South Central district.

Summary

- Approximately 30 percent of Iowa's land used inputs purchased from a cooperative, marketed grains or livestock products through a co-op, and used custom services of cooperatives in 2017.

- Crop share leased land were more likely to use services provided by cooperatives than cash rented land. In particular, 68 percent of land controlled via crop share marketed at least a portion of the crop through a cooperative.

- The use of agricultural cooperatives varied by crop reporting districts, and landowners in the Northwest, North Central, West Central, and Central districts marketed more products, bought more inputs, and received more custom services from co-ops.

10. Summary, Comparisons, and Recommendations

This study focused on Iowa land ownership and tenure in 2017. If possible, changes from results of earlier surveys were provided to give an historical perspective. The analysis included land owned by type of ownership, tenure of the land, demographics of landowners, farmland acquisition, and anticipated transfer methods. The study also examined use of conservation programs and conservation practices, as well as agricultural cooperatives. This final chapter briefly summarizes the survey methods, reviews the major conclusions from the 2017 study, contains policy implications of the results, and recommends avenues for future studies.

Summary of the Survey Methods

Selection of survey respondents concerning land ownership and tenure was made using a general sample of Iowa farmland. This survey methodology means most of the time the data presented here represents percentage of farmland and not percentage of farmland owners. However, the 2017 survey does allow some limited comparisons between percentage of farmland and percentage of farmland owners. In most cases, the percentage of owners matches the percentage of farmland but not in every case. Therefore, it is important to keep the distinction in mind when reviewing the data.

The general sample selection utilized 705 scientifically selected, randomly chosen 40-acre tracts. 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. For some of the 40-acre tracts there was more than one separate ownership unit. There were 958 different sample units. In some cases, there were multiple owners within the same sample unit. After allowing for ineligible tracts, non-respondents, and other adjustments, the work in this publication represents 535 completed telephone interviews. This was a 68 percent response rate from eligible respondents.

General Conclusions

Three major conclusions can be made regarding farmland ownership and tenure based on the 2017 study. Most of the changes were relatively small, involving only a one or two percent change from 2012. However, when viewed over the past 35 years, some of the changes were significant.

The first major conclusion from this study is that the increasing age structure of farmland owners continued to move towards an older population of landowners. In 2017, about 60 percent of the farmland in Iowa was owned by people over the age of 65, including 35 percent being owned by people over the age of 75. This was five percent higher than in 2007, and twice the level in 1982. In addition, farmland owners who were 75 years or older owned a record 35 percent of all acres in Iowa as of July 2017. The aging farmland owner issue is not just unique in Iowa and not unique to landowners either. The U.S. Census of Agriculture has revealed continuing aging farm operators, which is consistent with the aging workforce in non-agricultural sectors across the nation, too. However, the continuation of aging farmland owners does pose significant challenges for access to land, especially by beginning farmers.

This trend is echoed by the landowners' plans to transfer the land to the next generation. Willing or giving the land to family remained the most popular method of transferring land, accounting for more than half of all acres in Iowa farmland. The next most popular method for transferring farmland is putting it into a trust. Only seven percent of Iowa farmland would be available for sale to

a non-family member. The recent federal and state tax policy changes, especially the reinforcements of stepped-up basis for farmland transition and 1031 exchange for farmland, likely will make for tight farmland markets with limited land sales.

A second major conclusion is the increasing move towards cash rents appears to have continued. The amount of land that is rented has not changed substantially over the past few decades but the amount of land cash rented increased substantially. In 1982, leased land was equally divided between cash rent and crop share leases. By 2007, 77 percent of the leased land was leased using cash rent. In 2017, 82 percent of the leased farmland was under a cash rent arrangement.

One of the changes that occurred in leasing is the increase in the amount of the cash rent land that uses a flexible lease. Increased use of the flexible cash leases may be a move back to a variant of crop share. The wild swings in prices and yields over the period covered by the survey showed the advantages of using a flexible lease as opposed to the fix cash leases.

The third major conclusion is that we are seeing a shift in ownership structure. The percentage of Iowa farmland owned under a sole proprietor business arrangement decreased 19 percent from 1982 to 2017. In 1982, 41 percent of the land in Iowa was held as sole proprietorship, but in 2017 this had dropped to 22 percent. Farmland held in joint tenancy (husband and wife for purposes here) dropped four percent as well from 2012 to 2017. Overall, joint tenancy ownership has dropped from 39 percent in 1982 to 28 percent in 2017.

Land in trust is the ownership category that has seen the largest increase. In 1982, only one percent of the land was in a trust, by 2017, 20 percent was in a trust. The use of trusts doubled over the past decade. The majority of the trusts are revocable trusts, which indicate the owner is maintaining control of the trust but using this form of ownership as an estate planning and tax management tool or for some other reason. Another continuing change in ownership structure is the increased use of multiple ownership entities. Land being owned by two trusts, a trust and a corporation, a trust, a corporation, and an individual are just some of the examples of these multiple ownership entities.

Most of the changes that we have seen in land ownership and owner characteristics stem from these major forces in the land market. Some of the other changes are reflective of changing technology used in agricultural production and in the aging rural population in general.

Today in Iowa 82 percent of the land is held without debt. Although the financing situation with respect to farmland has not changed dramatically since 2007, there has been a substantial change since 1982. In 1982, 62 percent of the land was held debt free and 18 percent was under a contract for deed. By 2017 there had been a significant shift, with 82 percent of the land held without debt and just three percent held under a contract for deed. This could result from the profits earned in the good crop years in 2012 and 2014 and profitable livestock production years like 2014. During the period of rapid land value increases in the 1970s, land contracts were a popular form of financing. The low use of land contracts today may indicate the change in circumstances since that time.

The percentage of land owned by those with a high school degree or less continued to decrease from 65 percent in 1982 to 35 percent in 2017. The amount owned by those with a college degree grew by 14 percent compared to a decade ago. The biggest increases are found among land owned by those with some post-high school education or a college degree. This change in education level reflects a change in the population and a change in the complexity of running a farm today.

The majority of land, 57 percent, was owned by those who reported they did not farm in 2012. Over one-third of the land, 34 percent, was owned by someone who said they have never farmed; and another 23 percent was owned by retired farmers. This indicates two trends from the data. First, even after retirement farmers will tend to hold on to their land. Second, there has been an increase in the percentage of land being purchased by those who are classified as investors or landowners who inherited land, and many of them have never farmed.

The conclusion that farmers retain ownership of their land is reinforced by the reported reasons for owning land. Almost all land is owned either for income, long-term investment or sentimental reasons. In 2017, 29 percent of the land is owned by those who identified family or sentimental reasons as their primary reason for ownership. This increased from 22 percent in 2012, and also represented a change from 2007 when more people owned their land as a long-term investment versus for current income. This is concurrent with the increasing amount of land held by late-stage landowners and land owned free of debt.

The 2017 survey also revealed that although only four percent of all acres in Iowa currently grew cover crops, there is a growing recognition of key conservation practices. Twenty percent of farmland owners expressed willingness to pay a portion of costs to encourage more adoption of conservation practices on the land they own.

Farmland ownership is a dynamic and fluid situation. Although farmland is often held for a long period of time, as revealed by the survey, the ownership structure, tenancy, and transitions of farmland do respond to macroeconomic changes in federal and state policies as well as key commodity market trends. A number of key issues that are worth watching closely over the next few years include rising interest rates, changes in estate and capital gains tax policy, including stepped-up basis, agricultural trade uncertainty, and differential tax treatments on income from cash rent versus crop share.

Currently we are seeing a situation where the majority of the land is owned by an aging population and a growing number of owners with no farming experience. As they pass on, it appears they will be transferring the land within the family using a variety of techniques. Given the aging populations, the majority of the trends we see in place are likely to continue. Iowa can expect that more of its land will be owned by those who are not full-time residents, there will be significant changes in the ownership structure, and there will be a continued move towards cash rented land.

Appendix A. Methodology Report

Iowa Farmland Ownership and Tenure Survey

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1. Introduction

Iowa farmland ownership surveys have been conducted by Iowa State University researchers for over 60 years. In 2017–18 Iowa State University's Center for Survey Statistics and Methodology conducted the Iowa Farmland Ownership and Tenure survey, a state-wide telephone survey of owners of farmland in Iowa under the sponsorship of the ISU Department of Economics. This longitudinal survey has been conducted every five years since 1988. This report describes the methods used to design the sample, collect data and create summary tables for the study. Section 2 describes the sampling design methodology for the study and the data collection procedures, and Section 3 describes weighting and estimation procedures.

2. Sampling Design and Data Collection Procedures

The target population for this study is Iowa land that was used for agricultural purposes as of July 1, 2017. Since no complete list of owners of Iowa farmland is available, owners of the land were sampled through a two-stage area sampling design.

The first stage of sampling consisted of randomly selecting 705 40-acre tracts of land in Iowa, where a tract is a quarter of a quarter section in the Public Land Survey System. This sample of tracts was selected in 1988 and has been used every five years for the Iowa Land Ownership and Tenure survey. The sampling design for the survey tracts selection was stratified simple random sampling without replacement, where the strata were counties.

The next step consisted of identifying and contacting the owners of the selected tracts of land. Legal descriptions of the selected tracts were forwarded to appropriate county auditors to identify owners by name and address. Auditors also indicated whether the land was classified as agricultural. Most of the 40-acre tracts had one ownership arrangement, but some had multiple ownership arrangements. The part of a tract owned by a particular entity (individual, couple, cooperation, etc.) is called a parcel. All ownership arrangements for a tract were included in the sample.

The second stage of sampling related to owner selection for demographic data. Demographic information was obtained for all sole owners. If the ownership arrangement was a husband and wife, demographic information was obtained about both people. In cases of multiple ownership other than husband and wife ownership, one owner was randomly selected for inclusion in the demographic description portion of the survey. Because of the selection of one sample owner from a set of owners, the sample is a two-stage sample.

Respondents were asked how many acres were owned as of July 1 in the particular ownership arrangement of the selected 40-acre plot, and subsequent questions were asked for all acres owned in that particular ownership arrangement. The acres in the ownership arrangement are called unit acres.

Prior to data collection, research staff located telephone numbers for owners using records from the 2012 survey and internet resources. If county auditors provided only company names, Iowa Land Records information and other online resources were referenced to identify the names of individual owners. Anticipated ownership type and potential proxy respondents were also identified by research staff based on information provided by the auditors and online searches. The owner of record for each parcel was sent an advance letter describing the study prior to the initial phone contact. If no telephone number could be located for an owner, a pre-addressed, postage-paid postcard was enclosed to be returned to research staff with a current phone number.

Interviewers were trained in telephone interviewing techniques and in project protocols. All interviews were conducted in the CSSM telephone lab using an online instrument programmed in Qualtrics. A manual of interviewing procedures, glossary, and question-by-question specifications were used for training and for reference throughout the interviewing process. Interviews were conducted from October 18, 2017 through February 2, 2018.

CSSM staff observed the following protocols when contacting sample respondents. Telephone numbers were tried at various times (e.g., days and evenings, weekdays and weekends). Non-working and incorrect numbers were identified and placed in a tracking queue for additional attempts to locate the owners. Phone numbers with no personal contact were rotated through a minimum of eight call attempts. Phone numbers with personal contact were attempted up to 30 times. Numbers were classified as Maximum Calls if no interview was obtained after these attempts. Land classified by the auditors as non-agricultural was recorded as Not Eligible and no attempts were made to contact those owners. During the interview screening process, it was learned that some additional parcels were not used for agricultural purposes in 2017, and these were also recorded as Not Eligible.

Three types of follow-up letters with a $2 bill enclosed were sent to sub-groups of the sample during the data collection period. (1) Letters were sent to 110 individuals whose contact information had proven to be inaccurate. The letters included CSSM's toll free phone number; and a postage paid postcard was enclosed to be returned to research staff with a current phone number. CSSM received numerous responses providing contact information either through a phone call or a returned postcard, resulting in 57 completed interviews. (2) Letters were sent to 30 individuals with valid phone numbers who consistently did not answer their phone. Interviews were subsequently completed with 7 of these landowners. (3) Refusal conversion letters were sent to 59 individuals who originally refused, asking them to reconsider. Interviews were subsequently completed with 20 of them. Not every landowner who refused was sent a refusal conversion letter.

Proxy interviews were conducted in 59 cases. Seven completed cases involved land owned exclusively by institutions, and interviews were conducted with representatives of those institutions.

All interviews were conducted under the direct supervision of a telephone interviewing supervisor. The survey was programmed to include edit checks to detect illegal values and logic errors as responses were entered into the computer during the interview. Interviewers were monitored at random as a quality control measure and completed interviews were reviewed by a supervisor. Discrepancies, omissions and unclear responses were clarified with the interviewer if possible. Data retrieval callbacks were made to the respondent by a senior interviewer or supervisor when required. Frequencies, cross tabulations, and edit checks were conducted to catch coding and entry errors. Corrections in the data were made as inaccuracies were found.

Table 1 contains the outcomes for the telephone survey. Of the 958 land parcels with unique ownership that were identified in the sample, 149 were determined to be not eligible because their land was classified as exempt and/or non-agricultural. This includes land owned by government entities and churches as well as residential property. Another 18 parcels were not eligible because the land was not used for agricultural purposes in 2017, even though it was officially classified as agricultural land. Three owners each owned two of the sampled 40-acre plots in the same ownership type. Two of those owners refused to participate; they each are recorded as a refusal once and as ineligible once. The third owner, a corporation, completed the interview; the data was recorded under one Case ID while the other Case ID was assigned a disposition of not eligible. Eighty-four respondents were contacted multiple times but no interview could be obtained. There were 129 respondents who refused to complete an interview. An additional 42 owners could not be located (in most cases, addresses were available but no telephone number was located). The remaining 533 cases resulted in completed interviews, for an overall response rate of 67.6%.

Table 1. Telephone Survey Outcomes 2017-2018

	# Cases	Percent
Total 40-Acre Tracts of Iowa Farmland Selected	**705**	
Total Land Parcels with Unique Ownership in Sample	**958**	
Not Eligible (Classified exempt or non-agricultural)	149	
Not Eligible (Classified as agricultural but not used for agricultural purposes in 2017)	18	
Not Eligible (Duplicate owners – Three owners each own 2 sampled parcels in the same manner. Their information is included only once.)	3	
Total Eligible Land Parcels	**788**	**100.0%**
Unlocatable (no phone number available)	42	5.3%
Refused	129	16.4%
Maximum Calls - Unresolved	84	10.7%
Interviews Completed	**533**	**67.6%**

3. Estimation and Weighting

For the 2017 Iowa Farmland Ownership and Tenure Survey, we created two sets of weights, one set for acres and one set for owners. The acre weights are constructed to estimate characteristics of acres such as “number of acres owned by females.” The owner weights are designed to estimate characteristics of owners such as “the number of owners that are female.”

All weights are computed by district and region. Since we do not know the location of the “other” land that is owned, we assume that the land is owned in the same district and region of selected parcel.

1. Acre weights

The sample tract is a 40-acre plot but the tract may consist of multiple ownership units. As defined, the ownership unit within the sample tract is called a parcel**.** We assume the probability of selecting a parcel is proportional to the maximum of 40 acres and the size of the parcel.

Then, the sampling weight for the i-th parcel in the j-th district and k-th region is

$$\mathrm{w}^{*}_{1ijk} = \frac{A_{jk}}{n_{jk} a^{*}_{ijk}} \ , \qquad \text{(Error! Bookmark not defined.1)}$$

where

A_{jk}: Total acres of Iowa farmland in the j-th district and k-th region.

n_{jk}: a number of sampled parcels in the j-th district and k-th region.

a_{ijk} : Acres of the i-th parcel in the j-th district and k-th region.

$a^{*}_{ijk} = \max(40, a_{ijk})$.

The sampling weights are adjusted so that the weighted sum of a_{ijk} is equal to the total acres of farmland in the j-th district and k-th region,

$$w_{1ijk} = \mathrm{w}^{*}_{1ijk} r_1 \ , \qquad \text{(Error! Bookmark not defined.2)}$$

where

$$r_1 = \left(\sum_i \frac{1}{n_{jk} a^{*}_{ijk}} a_{ijk} \right)^{-1} = \left(\sum_i \mathrm{w}^{*}_{1ijk} a_{ijk} \right)^{-1} A_{jk} \ .$$

Given sampling weights for parcels, the acre weights are

$$w_{ijk} = w_{1ijk} a_{ijk} \ ,$$

where w_{ijk} is the acre weight for the i-th parcel in the j-th district and k-th region.

The sum of acre weights preserves total size of farmland in the district and region. That is, we have that

$$\sum_{i \in S_{jk}} w_{ijk} = \sum_{i \in S_{jk}} w_{1ijk} \, a_{ijk} = A_{jk}$$

and

$$\sum_j \sum_k \sum_{i \in S_{jk}} w_{ijk} = \sum_j \sum_k \sum_{i \in S_{jk}} w_{1ijk}\, a_{ijk} = \mathrm{A}\,,$$

where S_{jk} is a set of sampled parcels in the j-th district and k-th region and A is total acres of Iowa farmland.

Since we collect information for both husband and wife in case of couple owners, half of the acre weight is assigned to each member of the couple. For example, if an acre weight is 200 and the ownership arrangement is a couple, then the husband gets a weight of 100 and the wife gets a weight of 100. In other words, the data set contains a row of data for the husband and a row for the wife and each row is given a weight equal to one half of the acre weight.

2. Owner weights

To create sampling weights based on owners, we require "total acres" of farmland owned by each owner. We consider five scenarios for each owner. An owner can be (1) a sole owner who has no acres owned in another way, (2) one of a couple such that neither member of the couple owns acres in another way, (3) a sole owner who owns acres in some other way, (4) one of a couple such that at least one of the couple owns other acres, (5) one of multiple owners.

Table 2. Total acres for weighting and estimation

Ownership type		**Acres for weighting** $(\boldsymbol{b_{ijk}})$	**Acres for estimation** $(\boldsymbol{d_{ijk}})$
(1)		Q9a	Q9a
(2)	Husband	Q9a	Q9a/2
	Wife		
(3)		Q9a+Q61+Q62/Q63	Q9a+Q61+Q62/Q63
(4)	Husband	Q9a+Q61+Q62/Q63	Q9a/2+Q61+Q62/Q63
	Wife	Q9a+Q61+Q62/Q63	Q9a/2+Q61+Q62/Q63
(5)		Q9a/Q4+Q61+Q62/Q63	Q9a/Q4+ Q61+Q62/Q63

Q9a (Acres): Acres of Iowa farmland owned by the ownership in Q3a.

Q4 (NumOwner): Number of owners for Q9a.

Q61: Acres owned as a sole owner (Husband or Wife).

Q62: Acres owned with others (Husband or Wife).

Q63: The number of co-owners for Q62.

Q61: Acres owned as a sole owner.

Q62: Acres owned with others.

Q63: The number of co-owners for Q62.

The owner weights are created according to the aforementioned five ownership types. We first partition the owners for the j-th district and k-th region into 2 owner sets. One set, defined by S_{1jk}, contains parcels with ownership types (1) and (2), and the other set, defined by S_{2jk}, contains parcels with ownership types (3), (4), and (5). The corresponding adjusted total acres of Iowa farmland for the two sets are

$$B_{1jk} = \sum_{i \in S_{1jk}} w_{ijk} \quad \text{(Error! Bookmark not defined.3)}$$

and

$$B_{2jk} = \sum_{i \in S_{2jk}} w_{ijk} = A_{jk} - \sum_{i \in S_{1jk}} w_{ijk}\,, \quad \text{(Error! Bookmark not defined.4)}$$

where

A_{jk}: total acres of Iowa farmland in the j-th district and k-kth region.

w_{ijk} : acre weight for i-th owner whose parcel in the j-th district and k-th region. It is the acre weight calculated in the previous section for the i-th parcel in the j-th district and j-th region. But here we focus on the ownership of the corresponding parcel.

S_{1jk} : a set of parcels owned by ownership type (1) or (2).

S_{2jk} : a set of parcels owned by ownership type (3) or (4) or (5).

B_{1jk}: adjusted total acres of Iowa farmland in the j-th district and k-th region in set S_{1jk}.

B_{2jk}: adjusted total acres of Iowa farmland in the j-th district and k-th region in set S_{2jk}.

The probability that i-th owner is sampled is assumed to be proportional to owner's total acres, denoted by b_{ijk}, and is defined as "Acres for weighting" in the Table 2. Since we observe both husband and wife information, the whole unit acres Q9a is proportional to probability of selection of either. The rule preserves the sampling probability for owners across all ownership types. We use half of unit acres (Q9a/2) when estimating acres, because each member of the couple is given one half of the acres. Also the owner weights can be different in a couple, because husband and wife may have other land owned as sole owner (Q61) or other land owned as joint owners (Q62). In cases (2)

where the ownership arrangement is husband and wife and they do not own any acres in other ways, the husband and wife have the same total acres and same owner weight.

The initial owner weight is the sampling weight for the i-th owner in the j-th district and k-th region as

$$\mathrm{q}^{*}_{ijk} = I\{i \in \mathrm{S}_{1\mathrm{jk}}\}\frac{B_{1jk}}{m_{1jk}b^{*}_{ijk}} + I\{i \in \mathrm{S}_{2\mathrm{jk}}\}\frac{B_{2jk}}{m_{2jk}b^{*}_{ijk}}, \quad \text{(Error! Bookmark not defined.5)}$$

where

m_{1jk}: a size of $\mathrm{S}_{1\mathrm{jk}}$. That is, the total number of owners whose parcels are in $\mathrm{S}_{1\mathrm{jk}}$.

m_{2jk}: a size of $\mathrm{S}_{2\mathrm{jk}}$. That is, the total number of owners whose parcels are in $\mathrm{S}_{2\mathrm{jk}}$.

b_{ijk} : total acres of the i-th owners in the j-th district and k-th region.

$b^{*}_{ijk} = \max(40, b_{ijk})$.

$I\{i \in \mathrm{S}_{1\mathrm{jk}}\}$: an indicator function. $I\{i \in \mathrm{S}_{1\mathrm{jk}}\} = 1$ if the i-th owner is in set $\mathrm{S}_{1\mathrm{jk}}$, otherwise it is 0.

The initial owner weights are adjusted so that the weighted sum of b_{ijk} is equal to the adjusted total acres of farmland in jth district and kth region. So the final owner weights q_{ijk} are

$$q_{ijk} = \mathrm{q}^{*}_{ijk} r_2 \quad \text{(Error! Bookmark not defined.6)}$$

where

$$r_2 = I\{i \in \mathrm{S}_{1\mathrm{jk}}\}\left(\sum_{i \in \mathrm{S}_{1\mathrm{jk}}} \frac{1}{m_{1jk}b^{*}_{ijk}} d_{ijk}\right)^{-1} + I\{i \in \mathrm{S}_{2\mathrm{jk}}\}\left(\sum_{i \in \mathrm{S}_{2\mathrm{jk}}} \frac{1}{m_{2jk}b^{*}_{ijk}} d_{ijk}\right)^{-1}$$

and

$$\sum_{\mathrm{i} \in S_{1\mathrm{jk}}} q_{ijk}\, d_{ijk} = \mathrm{B}_{1\mathrm{jk}}$$

and

$$\sum_{\mathrm{i} \in S_{2\mathrm{jk}}} q_{ijk}\, d_{ijk} = \mathrm{B}_{2\mathrm{jk}},$$

where d_{ijk} is the total acres for estimation of the i-th owner in the j-th district and k-th region and is obtained from "Acres for estimation" of Table 2. The d_{ijk} is the total acres owned by the individual,

where acres in a multiply owned unit allocated to an owner in the acres in unit divided by number of owners. Because half of acres of unit (Q9a/2) is total acres in estimation for a member of a couple, d_{ijk} is different from b_{ijk} for couple ownership type. The final owner weights satisfy the following two equations:

$$\sum_{i \in Q_{jk}} q_{ijk}\, d_{ijk} = \sum_{\mathrm{i} \in \mathrm{S}_{1\mathrm{jk}}} q_{ijk}\, d_{ijk} + \sum_{\mathrm{i} \in \mathrm{S}_{2\mathrm{jk}}} q_{ijk}\, d_{ijk} = \mathrm{A}_{\mathrm{jk}}$$

and

$$\sum_{j} \sum_{k} \sum_{i \in Q_{jk}} q_{ijk}\, d_{ijk} = \mathrm{A}\,,$$

where Q_{jk} is a set of owners in the j-th district and k-th region and $Q_{jk} = \mathrm{S}_{1\mathrm{jk}} \cup \mathrm{S}_{2\mathrm{jk}}$.

Appendix B. Land Ownership and Tenure Questionnaire

Introduction 1 (Beginning).

Hello, this is (your name) calling for the Economics Department at Iowa State University. May I please speak to (owner name)?

Recently, Iowa State University sent you a letter about a land ownership research study we are conducting for the state legislature. Did you receive this letter?

1 = Yes

2 = No → [EXPLAIN PROJECT - READ LETTER IF NECESSARY.]

As the letter stated, we would like to talk with you about some land that you own in Iowa. This first part will take just a couple of minutes, and then we would like to do a short 15 to 20 minute interview that can be scheduled at your convenience. Before I ask any questions, I want to assure you that any information you provide will be kept strictly confidential and used only for the purposes of this research. Your participation is voluntary and if you feel any question is too personal, you do not have to answer it. First, I need to verify some information.

Introduction 2 (Appt Callback).

Hello, this is (your name) calling for the Economics Department at Iowa State University. May I please speak to (owner name)?

I'm calling back about the land ownership research study we are conducting for the state legislature. Is this still a good time for you to complete the interview? It will take 15 to 20 minutes.

1 = Yes

2 = No → **[SCHEDULE CALLBACK.]**

Before we begin, I want to assure you that any information you provide will be kept strictly confidential and used only for the purposes of this research. Your participation is voluntary and if you feel any question is too personal, you do not have to answer it. First, I need to verify some information.

Screener.

1a. According to tax records, as of July 1, 2017, you had an ownership interest in land located in _____ County,_____ Township, Section _____, the _____ Quarter of the _____ Quarter. Is that correct?

1 = Yes [GO TO Q2a.]
2 = No
3 = Respondent represents the owner (Proxy) [GO TO Q2a.]
4 = Institution owns land [GO TO Q2a.]

[IF DON'T KNOW, PROBE TO CLARIFY. IF NECESSARY, FIND OUT WHO CAN VERIFY OWNERSHIP & RECORD NAME & PHONE NUMBER FOR SUPERVISOR TO CALL. CLOSE.]

b. Did you have an ownership interest in this land before July 1, 2017?

1 = Yes
2 = No [PROBE TO DETERMINE ERROR & DESCRIBE. IF NO OWNERSHIP, CLOSE.]

c. Who owned this land as of July 1, 2017?
[RECORD NAME, PHONE #, AND ADDRESS. THEN CLOSE.]

2a. Was this land used for agricultural purposes (crops, livestock, etc.) this year? (in 2017)

1 = Yes [GO TO Q3a.]
2 = No

b. Is this land a home site which is adjacent to property you own that is being used for agricultural purposes?
1 = Yes [GO TO Q3a.]
2 = No → c. What is this land used for? [OPEN-ENDED]

[IF NO TO Q2a AND 2b, CLOSE: That's all the information we need for this study. Iowa State University thanks you for your time (today/this evening).]

3a. Our records show that as of July 1, 2017 you owned this parcel of land as a [TYPE OF OWNERSHIP FROM SAMPLE] [with NAME(s)]. Is this correct ?

1 = Yes
2 = No

3b. If Q3a = 2 (No), ASK: In what manner did you own this land?

1 = Sole Owner
2 = Joint Tenancy (husband/wife)
3 = Tenancy in Common
4 = Partnership (Legal)
5 = Life Estate
6 = Unsettled Estate
7 = Trust
8 = Corporation
9 = LLC
10 = LLP
11 = Limited Partnership
12 = Other (Specify:_____)

["TYPE OF OWNERSHIP" IS DEFINED AS "TYPE OF OWNERSHIP FROM SAMPLE" IF Q3a = YES. BUT IF Q3a = NO, THEN "TYPE OF OWNERSHIP" EQUALS THE RESPONSE IN Q3b.]

4. How many people, **including** you, have an ownership interest in this land?

_____# owners

[IF 1 OWNER, GO TO Q7a] [IF 2 OWNERS, GO TO Q5.]
[IF 3 OR MORE OWNERS, GO TO Q6a]

5. Is the other owner your (husband/wife)?
1 = Yes [GO TO Q7a.]
2 = No

6a. I may need to ask a few questions about one of the other owners later in the interview. In order to select which owner, I need to list their first names. What are the first names of the other owners?
[LIST RESPONDENT FIRST.]

1	Resp:	6
2		7
3		8
4		9
5		10

b. According to our selection process . . .

[#1 SELECTED:] you are the only owner we will need to talk with.
[#2 OR GREATER SELECTED:] [NAME2] is the other owner we will need to ask about.

7a. Do you live in Iowa year-round, part of the year, or not at all?

1 = year-round in Iowa
2 = part of the year in Iowa
3 = not at all in Iowa

7b. Are you a legal resident of Iowa for tax purposes?

1 = Yes → 7c. Which county in Iowa?: _____
2 = No → 7d. Which state is your legal residence? _____

IF SOLE OWNER or Q5 = 1 (Yes, spouse), GO TO QUESTIONNAIRE.
IF Q5 = 2 (Not spouse) OR Q4 > 2 (3+ owners), ASK Q8a-d.

8a. How many of the other owners live in Iowa year-round? _____

8b. How many (of the other owners) live in Iowa part of the year? _____

8c. How many (of the other owners) do not live in Iowa at all? _____

8d. How many of the other owners are members of your family? (related to you by blood or marriage) Would you say . . .

1 = all of them
2 = some of them or
3 = none of them?

QUESTIONNAIRE.

Land Ownership.

9a. Now I would like you to think of all the Iowa farmland you owned as a [TYPE OF OWNERSHIP] [with name/s] as of July 1,2017. 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, 2017, how many acres of Iowa farmland did you own as a [TYPE OF OWNERSHIP] [with name/s]?

_____ Acres

9b. How many of these acres (in 9a) are located in _____ County, Iowa (THE SAMPLE COUNTY)?

_____ Acres

10. Of these acres….

a. How many are fully paid for? _____

b. How many are being bought under purchase contract or contract for deed? _____ Do not include mortgaged land.

c. How many are mortgaged? _____

d. How many are owned under other financial arrangements? _____

e. [IF ACRES RECORDED IN 10d, ASK:] What is the other type of arrangement? [OPEN ENDED]

TOTAL NUMBER OF ACRES IN Q10a-d MUST EQUAL ACRES IN Q9a. IF DIFFERENT, PROBE TO RESOLVE.

11. How many acres of this land did you…

a. Purchase? _____ acres

b. Receive as a gift from a person who was living at the time of the transfer? ____ acres

c. Inherit? _____ acres

d. Obtain in some other way? _____ acres

e. IF Q11d > 0, ASK: How did you obtain these acres? [OPEN ENDED]

f. IF Q11d > 0, ASK: How many of those [# OTHER] acres were obtained from a family member? _____ acres

g. IF Q11a > 0, ASK: How many of the [# in Q11a] acres you purchased were bought at an auction? _____ acres

h. IF Q11a > 0, ASK: How many of the [# in Q11a] acres you purchased were bought from a family member? _____ acres

TOTAL NUMBER OF ACRES IN Q11a+b+c+d MUST EQUAL ACRES IN Q9a. IF DIFFERENT, PROBE TO RESOLVE.

12. Next, we would like you to think about how long you have owned this land (that is, the land you own [TYPE OF OWNERSHIP]). Please try to recall when you acquired the first parcel of this land.

    a. What year was that?

    b. How many acres was that?

    [REPEAT UNTIL ALL ACRES ARE ACCOUNTED FOR: What year did you get the next parcel of land (that you own as a [TYPE OF OWNERSHIP])?]

(a) Year	(b) # Acres
1st	
2nd	
3rd	
4th	
5th	
6th	
7th	
8th	

TOTAL NUMBER OF ACRES IN Q12 MUST EQUAL ACRES IN Q9a. IF DIFFERENT, PROBE TO RESOLVE.

Land Use and Characteristics.

13a. On July 1, 2017, did you live on any Iowa farmland that you owned as a [TYPE OF OWNERSHIP]?

1 = Yes → [GO TO Q14a]
2 = No

13b. Did you live on any other farmland that you (or your spouse) own?

1 = Yes
2 = No

14. Thinking of the land you own as a [TYPE OF OWNERSHIP], as of July 1, 2017, how many of these acres were being rented or leased to someone else for . . .

a. agricultural purposes, including farmsteads? _____acres
b. industrial or commercial purposes? _____acres
c. hunting or recreational purposes? _____acres
d. some other purpose? _____acres
e. ASK IF Q14d > 0: What purpose was that?
[OPEN TEXT]

15. Thinking of the [FILL # FROM Q14a] acres rented or leased for ag purposes in 2017, how many of these acres were used for. . .

a. Cropland (including hay ground)? _____ acres

b. Pastureland? (not harvested) _____ acres

c. Forest, timber, or woodland? _____ acres

d. Other uses, such as farmsteads, buildings, livestock facilities, ponds, roads, ditches, or wasteland? _____ acres

Total 15a + 15b + 15c + 15d = acres in Q14a

16a. In 2017 was any of the land you own as a [TYPE OF OWNERSHIP] being farmed or operated by you (or your spouse or any of the other owners) or under your control?

(This includes any land in crops, livestock, pasture, farmstead or timber. It includes land you pay to have custom farmed or handled by a professional farm manager, as well as land in CRP or other conservation programs.)

1 = Yes (with crops/livestock)
2 = Yes (**only** farmstead/timber)
3 = No

16b. IF Q16a = Yes (1 or 2):
How many acres were operated by you or any of the other owners? _____

Total Q14a + b + c + d + Q16b = acres in Q9a

17a. In 2017 were any of the acres that you own as a [TYPE OF OWNERSHIP] entirely custom farmed by someone else, for all production operations?

1 = Yes
2 = No [GO TO Q18a]

17b. IF Q17a = 1 (Yes), ASK:
How many acres? (were custom farmed) _____ acres

18a. In 2017 were any of the acres that you own as a [TYPE OF OWNERSHIP] under a production contract for either crops or livestock?

1 = Yes
2 = No [GO TO Q19a]

IF Q18a = 1 (Yes), ASK:
18b. How many acres? (were under a production contract) _____ acres

18c. Was this contract for livestock, for producing crops for seed, or something else?

1 = Livestock custom feeding
2 = manure application
3 = Seed (or specialty crop) production
4 = Other [IF OTHER, GO TO Q18c_Spec]

18c_Spec. (Please explain: _____)

19a. In 2017 were any of the acres that you own as a [TYPE OF OWNERSHIP] being handled on your behalf by a **professional farm manager**?

1 = Yes
2 = No → [GO TO Q20a]

19b. How many acres? (were handled by a professional farm manager)? _____acres

19c. Is the professional farm manager paid a flat dollar fee, a percentage of the gross income, or in some other way?

1 = Flat dollar fee, (either total or per acre) [GO TO Q19e]
2 = Percentage of gross income [GO TO 19d]
3 = Other way [GO TO 19c_spec]

19c_spec. [IF OTHER WAY, ASK:] (How is the farm manager paid?)
OPEN TEXT RESPONSE. THEN GO TO 19e

19d. IF Q19c = 2, ASK: What percentage of the gross income is paid to the farm manager?
_%

19e. What kind of arrangement does the farm manager have with the farmer who operates (or actually farms) this land?

1 = Fixed cash lease
2 = Flexible cash lease (varies with yields and/or prices)
3 = Crop share lease
4 = Custom farming arrangement
5 = Other [GO TO 19e_spec]
6 = DON'T KNOW

19e_spec. [IF OTHER ARRANGEMENT, ASK:] (What type of arrangement is used?)
OPEN TEXT RESPONSE.

20a. Sometimes people have transferred certain rights associated with their land to others. These rights are for nonagricultural uses such as mineral rights, wind turbines, electrical power lines, or pipelines. Transfers like this may be in the form of a deed, lease, easement or option.

Have any of the rights on this farmland been sold or leased to others?

1 = Yes
2 = No [IF NO, GO TO Q21a]

	IF 20x1 = YES, ASK:
b1. Are there wind generation easements on this land? 1 = Yes 2 = No	b2. Were they sold or leased? 1 = Sold (one time payment) 2 = Leased (include royalty payments) 3 = DK
c1. Are there oil or gas pipeline easements on this land? 1 = Yes 2 = No	c2. Were they sold or leased? 1 = Sold (one time payment) 2 = Leased (include royalty payments) 3 = DK
d1. Are there any other easements or rights that have been transferred on this land? 1 = Yes 2 = No	d2. Were they sold or leased? 1 = Sold (one time payment) 2 = Leased (include royalty payments) 3 = DK

21a. Have any of the property rights on the land you own as a [TYPE OF OWNERSHIP] been placed in any non-government conservation easement programs, such as Ducks Unlimited, Pheasants Forever, or the Iowa Heritage Foundation? (also the American Farmland Trust, the Conservation League)

1 = Yes
2 = No [IF NO, GO TO INSTRUCTIONS BELOW]

21b. IF Q21a = YES, ASK: How many acres does this involve? _____ acres

[IF NO RENTED ACRES IN Q14a, GO TO Q44.]

[IF RENTED ACRES ARE RECORDED IN Q14a, ASK RENTAL ARRANGEMENTS SECTION.]

Rental Arrangements.

You indicated that [FILL # from Q14a] acres of your land that you own as a [TYPE OF OWNERSHIP] were being rented or leased for agricultural purposes this year. Next I have several questions relating to those acres and the rental agreements that you have.

22. How many of your [FILL # from Q14a] rented acres that you own as a [TYPE OF OWNERSHIP] were rented out for **cash rent** this year (in 2017)?
_____Acres ACRES MUST BE ≤ ACRES IN Q14a.

[IF NONE FOR CASH RENT (Q22 = 0), GO TO Q32, CROP SHARE.]

23a. How many different tenants are involved? _____ [IF Q23a = 1, GO TO Q24]

23b. IF Q24a > 1, ASK: Think of the tenant who rents the greatest number of these acres from you (for cash rent). How many acres does that tenant rent from you? _____ acres

24. How many years has this tenant been renting this land? _____ years

25. Is your rental agreement written or verbal?

1 = written
2 = verbal

26. IF Q25 = 1 (written), ASK: How many years is the lease (or agreement) for?
0 = Indefinite, year to year
_____ year(s)

27. How many rent payments do you receive per year (for the acres that are cash rented) from this tenant?

1 = One payment
2 = Two payments
3 = Three payments
4 = Four payments
5 = Twelve monthly payments
6 = Other, it varies, no set schedule

28. Is the cash rent a fixed amount, or is it flexible, based on the actual yield or price?

1 = fixed amount
2 = flexible, based on the actual yield
3 = flexible, based on actual crop price
4 = flexible, based on both actual yield and price

29. Is this tenant a relative (by blood or marriage), a close friend, or someone else?

1 = Relative
2 = Close friend
3 = Someone else

30. Does your tenant tell you what crop yields are obtained on this land?

1 = Yes
2 = No

31. How often do you (or the other owners) actually go to the site to check on this land during a typical farming season? Would you say, . . .

1 = never,
2 = once or twice,
3 = once a month,
4 = once a week, or
5 = daily?

32. How many acres were rented on a **crop-share** basis? _____ acres

[IF Q32 = 0, (NO CROP-SHARE), GO TO Q43a.]

[ACRES IN Q22 + Q32 MUST BE LESS THAN OR EQUAL TO ACRES IN Q14a. IF NOT, ASK: I'm sorry. I had recorded that you rented out [FILL # in Q14a] acres but I must have something wrong here. What is the rental situation with these acres? ADJUST AS NEEDED.]

33a. How many different tenants are involved? _____ [IF Q33a = 1, GO TO Q34a]

33b. IF Q33a > 1, ASK: Think of the tenant who rents the greatest number of these acres from you (on crop share). How many acres does that tenant rent from you? _____ acres

34. Is this tenant a relative (by blood or marriage), a close friend, or someone else?

1 = Relative
2 = Close friend
3 = Someone else

35. How many years has this tenant been renting this land?_____Years

36. Is your rental agreement written or verbal?

1 = written
2 = verbal

37. IF Q36 = 1 (written), ASK: How many years is the lease for? _____ years

38. We are interested in how you are involved in your crop-share arrangement.
First of all, what percent of the yield do you receive for corn? _____ % NO CORN

39. What percent of the yield do you receive for soybeans? _____ % NO SOYBEANS

40. On average, what percent of the crop input costs, such as seed, fertilizer, pesticides, or drying costs, do you pay? _____ %

41. On average, what percent of any custom hired fertilizer application, pesticide application or harvesting costs do you pay? _____ % NOT DONE

42. How often do you (or the other owners) actually go to the site to check on this land during a typical farming season? Would you say, . . .
1 = never,
2 = once or twice,
3 = once a month,
4 = once a week, or
5 = daily?

43a. How many acres were rented out under some **other type** of arrangement? __

43b. IF Q43a > 1, ASK: (What was the arrangement?) [OPEN-ENDED]

ALL 3 TYPES OF RENTED LAND (Q22 + Q32 + Q43a) MUST EQUAL THE ACRES IN Q14a.

ASK EVERYONE:

Think about all [FILL # from Q9a] acres that you own as a [TYPE OF OWNERSHIP]. (including land rented out and land operated by you or under your direction)

44. What percent of the total inputs used on this land was purchased from a co-op (agricultural or farm co-operative)?
_____ %

45. What percent of the crops (or livestock) produced on this land was sold to or through a co-op (co-operative)? _____ %

46. Did any of the land that you own as a [TYPE OF OWNERSHIP] receive custom production services, like custom spraying or fertilizer application, from a co-op?
    1 = Yes
    2 = No
    3 = Don't know

47. If Q46= Yes (1), ASK: How many acres? _____

CONSERVATION PRACTICES

48. Are any of the Iowa acres that you own as a [TYPE OF OWNERSHIP] enrolled in conservation programs or under conservation easements?
    1 = Yes
    2 = No [GO TO Q50]

49. Is any of this land currently enrolled in . . .

		A. Currently enrolled?	B. IF YES: How many acres?	C. IF 49b or 49d =YES: How many of these acres are rented out?
a.	the Conservation Reserve Program (CRP)?	1 = Yes 2 = No		
b.	Environmental Quality Incentives Programs (EQIP)?	1 = Yes 2 = No		
c.	The Conservation Stewardship Program (CSP)?	1 = Yes 2 = No		
d.	The IDALS soil conservation cost-share program?	1 = Yes 2 = No		
e.	Any other program or conservation easements?	1 = Yes 2 = No		
f.	IF Q49e = Yes (1): (What other programs?) [OPEN-ENDED]			

50. Were any of the following practices used in 2017 on the land you own as a [TYPE OF OWNERSHIP]?

A. Was/Were [FILL] used on this land in 2017?

	A. Used in 2017?	**B. IF A = YES: How many (acres / acres have [FILL])?**	**C. IF A = YES: Are these acres operated by you, rented out, or some of each?**	**D. IF A = NO: Are you likely to use [FILL] within the next 5 years?**	**E. IF A = NO & D = NO or UNSURE: What is your main reason for not using it?**
a. No-till	1 = Yes 2 = No 3 = Not sure	_____acres	1 = Operated by me 2 = Rented out 3 = Some of each	1 = Yes 2 = No 3 = Maybe, unsure	1 = Not good for my land 2 = Hurts crop yield 3 = Other (specify:_____)
b. Cover crops	1 = Yes 2 = No 3 = Not sure	_____acres	1 = Operated by me 2 = Rented out 3 = Some of each	1 = Yes 2 = No 3 = Maybe, unsure	1 = Hurts crop yield 2 = Too expensive 3 = Other (specify:_____)
c. Buffer strips (in-field or along streams)	1 = Yes 2 = No 3 = Not sure	_____acres	1 = Operated by me 2 = Rented out 3 = Some of each	1 = Yes 2 = No 3 = Maybe, unsure	1 = No need on my land 2 = Too expensive 3 = Other (specify:_____)
d. a pond or sedimentation basin	1 = Yes 2 = No 3 = Not sure	_____acres	1 = Operated by me 2 = Rented out 3 = Some of each	1 = Yes 2 = No 3 = Maybe, unsure	1 = No need on my land 2 = Too expensive 3 = Other (specify:_____)

51. How likely would you be to adopt more conservation practices if [FILL]?
On a scale from 1 to 5, where 1 is not at all likely and 5 is very likely, which number would you choose?

	Not at All Likely				**Very Likely**	**Unsure, DK**
a. land enrolled in conservation programs was excluded from the value of your estate for estate tax purposes?	1	2	3	4	5	6
b. tax-free cost sharing assistance was available?	1	2	3	4	5	6
c. you could get tax credits or deductions for implementing them?	1	2	3	4	5	6

52a. IF Q14a > 0 (acres rented out), ASK:
Would you be willing to assist your tenant by paying a portion of the cost to plant (more) cover crops?
1 = Yes
2 = No
3 = Maybe
4 = Not applicable, all acres are typically planted to cover crops

52b. IF Q52a = YES (1), ASK: What percent of the cost would you be willing pay? _____%

52c. IF Q14a > 0 (acres rented out), ASK:
Would you be willing to accept a lower cash rent or a smaller portion of the crop share if your tenant adopted or increased the area under cover crops?
1 = Yes
2 = No
3 = Maybe
4 = Not applicable, all acres are typically planted to cover crops

52d. IF Q52c= YES (1), ASK: How much less would you be willing to accept (dollars or percent)?
[OPEN-ENDED]

53a. IF Q14a > 0 (acres rented out), and Q26 > 0 or Q37 > 0, ASK:
Would you be willing to increase the length of the lease if your tenant adopted or increased the area under cover crops?
1 = Yes
2 = No
3 = Maybe
4 = Not Applicable, opened ended lease

53b. IF Q53a = YES (1), ASK: For how many more years would you be willing to extend the lease?

[OPEN-ENDED]

Future Plans [ASK EVERYONE]

54a. Think about all the Iowa farmland that you own as a [TYPE OF OWNERSHIP]. What is your **primary** reason for owning this farmland? Would you say it is . . .

1 = for your current income
2 = for an investment
3 = for family or sentimental reasons
4 = or another reason? [GO TO Q54b]

54b. IF Q54a = 4, ANOTHER REASON, ASK: What is your primary reason for owning this land?

[OPEN ENDED]

55. Next, we would like you to think about how you anticipate transferring the ownership of the land that you own as a [TYPE OF OWNERSHIP]. Even though we know that these plans may change in the future, we would like to 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 or keep any in a trust? (including living or testamentary trusts)	1	2
h.	do anything else?	1	2
i.	IF Q55h = 1 (YES/MAYBE), ASK: What else do you plan to do? [OPEN-ENDED]		

56. IF Q55c,d,e,f,g, or h = Yes (1), ASK:
Do you think this land transfer (sell it, give it, put in a trust) will happen within the next 5 years?

1 = Yes, (In the next five years)
2 = No
3 = Already in a trust, no need to do anything
4 = DK

57. IF Q55 e or f = Yes(1), ASK:

Which one of the following factors would be most likely to prompt you to sell some or all of your farmland? Would you say, . . .

1 = a lower capital gains tax rate,
2 = a higher selling price per acre,
3 = your retirement from farming,
4 = the elimination of step-up basis tax benefits for your heirs
5 = or something else?
6 = Don't Know

58. IF Q57 = 1, ASK:

Currently the maximum capital gains tax rate is about 24%. How low would the capital gains tax rate need to be for you to sell some or all of your farmland?

_____

59. IF Q57 = 3, ASK:

When do you plan to retire from farming? Would you say . . .

1 = in less than five years,
2 = in 5 to 10 years,
3 = or in more than 10 years?
4 = DK

OTHER FARMLAND OWNED.

IF JOINT TENANCY WITH HUSBAND/WIFE [TYPE OF OWNERSHIP = JOINT TENANCY AND Q5 = 1 (Yes)],
ASK Q60-66 series:

60. Throughout this interview, we focused on the Iowa farmland that you own jointly with your spouse. Do either you or your spouse have an ownership interest in any **other** Iowa farmland? (This would include tillable and non-tillable land, pasture, timber, building sites, and any other land that is part of a farm.)
    1 = Yes
    2 = No [**IF NO, GO TO Q67.]**

61. How many other acres do you own as a sole owner? _____ acres

62. How many other acres do you own with other people? _____ acres

63. IF Q62 > 0, ASK:
How many people, including you, share the ownership of that land? _____ people

IF MORE THAN ONE OWNERSHIP SITUATION WITH OTHER PEOPLE, DESCRIBE ON ROC.
INCLUDE # OF OWNERS WITH # OF ACRES FOR EACH SITUATION.

64. How many other acres does your **spouse** own as a sole owner? _____ acres

65. How many other acres does your spouse own with other people? _____ acres

66. IF Q65 > 0), ASK:
How many people, including your spouse, share the ownership of that land? ____ people

IF MORE THAN ONE OWNERSHIP SITUATION WITH OTHER PEOPLE, DESCRIBE ON ROC.
INCLUDE # OF OWNERS WITH # OF ACRES FOR EACH SITUATION.

THEN GO TO DEMOGRAPHIC SECTION.

FOR EVERYONE ELSE (NOT JOINT TENANCY WITH HUSBAND/WIFE), ASK Q67-71 series:

67. Throughout this interview, we focused on Iowa farmland that you own as a [TYPE OF OWNERSHIP]. Do you have an ownership interest in any **other** Iowa farmland? (This would include tillable and non-tillable land, pasture, timber, building sites, and any other land that is part of a farm.)
    1 = Yes
    2 = No **[IF NO, GO TO Q72.]**

68. **IF SOLE OWNER, SAY:** How many <u>other</u> acres do you own in a different type of ownership, such as a corporation, trust, or life estate, where you are the only owner? ____ acres

69. **IF NOT SOLE OWNER, SAY:** How many <u>other</u> acres do you own as a sole owner? This could also include being the sole owner of a corporation, trust, or life estate. ____ acres

70. How many other acres do you own with other people? _____ acres

71. IF Q70 > 0 ASK:
How many people, including you, share the ownership of this land? _____ people

IF MORE THAN ONE OWNERSHIP SITUATION WITH OTHER PEOPLE, DESCRIBE ON ROC. INCLUDE # OF OWNERS WITH # OF ACRES FOR EACH SITUATION.

DEMOGRAPHICS: Respondent Characteristics FOR NON-"JOINT TENANCY HUSBAND/WIFE" OWNERS

72. Now I have some background questions about you.
ENTER GENDER. ASK IF UNSURE: Are you male or female?
1=Male
2=Female

73. This past year, in 2017, did you operate a farm full-time, part-time, or not at all?
1 = farmed full-time
2 = farmed part-time
3 = did not farm at all [IF NO FARMING AT ALL, GO TO Q80]

IF Q73 = 1 or 2, ASK Q74-79
74. How many acres did you farm this year? (including acres owned or rented from others)
_____ acres

75. Did you raise crops, livestock, or both?
1 = crops only
2 = livestock only
3 = both crops and livestock

76. IF Q75b = 2 or 3, ASK:
What types of livestock do you have? (check all that apply)
1 = beef cow-calf
2 = feedlot cattle
3 = dairy cattle
4 = hogs
5 = poultry (layers or broilers)
6 = Other

77. About how many years have you been farming? _____ years

78. Are you a first, second, third, or fourth generation farmer on any of this land?
1 = First
2 = Second
3 = Third
4 = Fourth or longer

79. Are you also currently employed off the farm?
1 = Yes
2 = No

80. IF Q73 = 3 (did not farm in 2017), ASK: Have you ever operated a farm?
1 = Yes
2 = No → GO TO Q82

81. IF Q80 = 1 (Yes), ASK: How many years did you farm? _____ years

82. IF Q73 = 3 (did not farm in 2017), ASK: Are you currently . . .
1 = employed off the farm,
2 = unemployed,
3 = retired,
4 = disabled, or
5 = caring for your home or family full time?

83. What is your current age? _____ years

84. Are you currently . . .
1 = married or living as married,
2 = separated or divorced
3 = widowed, or
4 = single and never been married?

85. In 2016, about what percent of your total household income came from the sale of ag products or farmland rental income? _____ %

86. What is the highest level of education you have completed? (Please include any college, vocational, or technical training.)

1 = 11th grade or less
2 = High school (includes GED)
3 = Some post-high school, but no 4-year degree
4 = College degree (4-year Bachelors)
5 = Graduate or professional degree completed (Masters, PhD, JD, etc.)

IF ADDITIONAL OWNER WAS SELECTED FOR DEMOGRAPHICS, ASK Q87 - 101.
IF NO ADDITIONAL OWNER SELECTED, GO TO Q122.

DEMOGRAPHICS: Respondent Characteristics FOR SELECTED OWNER IN Q6b

87. Now I have a few similar questions about [NAME2].
RECORD GENDER. ASK IF UNSURE: Is [NAME2] male or female?
1=Male
2=Female

88. This past year, in 2017, did [NAME2] farm full-time, part-time, or not at all?
1 = farmed full-time
2 = farmed part-time
3 = did not farm at all [IF NO FARMING AT ALL, GO TO Q95]

IF Q88 = 1 or 2, ASK Q89-94

89. About how many acres did [NAME2] farm this year? (including acres owned or rented from others) _____ acres

90. Did (he/she) raise crops, livestock, or both?
1 = crops only
2 = livestock only
3 = both crops and livestock

91. IF Q90 = 2 or 3, ASK:
What types of livestock does [NAME2] have? (check all that apply)
1 = beef cow-calf
2 = feedlot cattle
3 = dairy cattle
4 = hogs
5 = poultry (layers or broilers)
6 = other

92. About how many years has [NAME2] been farming? _____ years

93. Is [NAME2] a first, second, third, or fourth generation farmer on any of this land?

1 = First
2 = Second
3 = Third
4 = Fourth or longer

94. Is (he/she) also currently employed off the farm?
1 = Yes
2 = No

95. IF Q88 = 3, DID NOT FARM, ASK: Has (he/she) ever operated a farm?

1 = Yes
2 = No → GO TO Q97

96. IF Q95 = 1 (Yes), ASK: About how many years did (he/she) farm? _____ years

97. IF Q88 = 3, ASK: Is [NAME2] currently . . .

1 = employed off the farm,
2 = unemployed,
3 = retired,
4 = disabled, or
5 = caring for home or family full-time?

98. What is [NAME2]'s current age? _____

99. Is [NAME2] currently . . .

1 = married or living as married,
2 = separated or divorced
3 = widowed, or
4 = single and never been married?

100. What state does [NAME2] live in? _____

101. What is the highest level of education (he/she) has completed? (Include any college, vocational, or technical training.)

1 = 11th grade or less
2 = High school (includes GED)
3 = Some post-high school, but no 4-year degree
4 = College degree (4-year Bachelors)
5 = Graduate or professional degree completed (Masters, PhD, JD, etc.)

GO TO Q122.

DEMOGRAPHIC SECTION FOR JOINT TENANCY HUSBAND/WIFE OWNERS.

102. Now I have some background questions about you and your (spouse/husband/wife). During the past year (in 2017), were either of you involved in farming?

1 = Yes
2 = No → RECORD GENDER, NEXT QUESTION, THEN GO TO Q111.

103. RECORD GENDER. ASK IF UNSURE: Are you male or female?

1=Male
2=Female

IF Q102 = 2 (No), GO TO Q111.

104. Would you say that you, yourself, farmed full-time, part-time, or not at all?

1 = Farmed full-time
2 = Farmed part-time
3 = Did not farm at all

105. How many acres did you (and your husband/wife) farm this year? _____ acres

106. Did you raise crops, livestock, or both?

1 = crops only
2 = livestock only
3 = both crops and livestock

107. IF Q106 = 2 or 3, ASK: What types of livestock do you have? (select all that apply)

1 = beef cow-calf
2 = feedlot cattle
3 = dairy
4 = hogs
5 = poultry (layers or broilers)
6 = other

108. About how many years have you (either or both of you) been farming? _____ years

109. Are you first, second, third, or fourth generation farmers on any of this land?

1 = First
2 = Second
3 = Third
4 = Fourth or longer

110. Are you (also) currently employed off the farm?

1 = Yes
2 = No

111. IF Q102= 2 (Household did not farm), ASK:
Have you (and your husband/wife) ever operated a farm?

1 = Yes
2 = No →GO TO Q113

112. IF Q111 = 1 (Yes), ASK: How many years did you farm? _____ years

IF Q102= 2 (No) OR Q104 = 3 (Did not farm at all), ASK:
113. Are you currently . . .

1 = employed off the farm,
2 = unemployed,
3 = retired,
4 = disabled, or
5= caring for home or family full-time?

114. What is your current age? _____ years

115. What is the highest level of education you have completed? (Please include any college, vocational, or technical training.)

1 = 11th grade or less
2 = High school (includes GED)
3 = Some post-high school, but no 4-year degree
4 = College degree (4-year Bachelors)
5 = Graduate or professional degree completed (Masters, PhD, JD, etc.)

SPOUSE DEMOGRAPHICS.

116. Now I have a few similar questions about [SPOUSENAME].
ENTER GENDER. IF UNKNOWN, ASK: Is [SPOUSE NAME] male or female?

1=Male
2=Female

IF Q102 = 1 (INVOLVED IN FARMING), ASK:

117. This past year, in 2017, did [SPNAME] farm full-time, part-time, or not at all?

1 = Farmed full-time
2 = Farmed part-time
3 = Did not farm at all

IF Q117 = 1 OR 2 (FARMED FT OR PT), ASK:

118. Is [SPNAME] also currently employed off the farm?

1 = Yes
2 = No

IF Q102 = 2 (No) OR Q117 = 3 (Did not farm at all), ASK:

119. Is [SPNAME] currently . . .

1 = employed off the farm,
2 = unemployed,
3 = retired,
4 = disabled, or
5= caring for home or family full-time?

120. What is [SPNAME]'s current age? ____

121. What is the highest level of education (he/she) has completed? (Include any college, vocational, or technical training.)

1 = 11th grade or less
2 = High school (includes GED)
3 = Some post-high school, but no 4-year degree
4 = College degree (4-year Bachelors)
5 = Graduate or professional degree completed (Masters, PhD, JD, etc.)

ASK ALL:

122. This completes the interview. Do you have any comments you'd like to make, or is there anything you would like to tell us about the ownership of farmland that may be helpful to our project?

1 = Yes
2 = No [GO TO Q124]

123. RECORD COMMENTS [OPEN-ENDED]

124. Are you interested in receiving a copy of the results of this study? It would probably be mailed to you sometime next summer.

1 = Yes
2 = No [GO TO CLOSE]

IF Q124 = YES: CONFIRM NAME AND ADDRESS. MAKE CHANGES ON ROC.

CLOSE. Thank you for your time today. Iowa State University appreciates your interest and cooperation with our study.