

## **Women Non-Operating Landowners: Overcoming Barriers to Increasing Conservation on Leased Farmland Preliminary Report**

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## SUMMARY

In partnership with Rachel's Network and the USDA Economic Research Service and with funding from Rachel's Network, USDA Economic Research Service and The Mosaic Company Foundation, American Farmland Trust (AFT) and Utah State University (USU) have set out to learn as much as we can about women who own farmland and lease it out (women non-operating landowners or WNOLs). Women tend to be deeply committed to healthy farmland, farm families and farm communities. However, limited research indicates that WNOLs face more gendered barriers than male NOLs to managing their land for long-term sustainability. *The long-term goal of our efforts is to enhance resource management on agricultural land by providing information to policymakers and natural resource agencies that will help them design more effective resource management and land protection programs for WNOLs.*

## INTRODUCTION

**People who lease farmland out to production own about 42 percent of U.S. farmland.** NOLs—those who own farmland they often lease out for production—own approximately 42 percent of the U.S. agricultural land base (AELOS 1999). Yet, information on this group of landowners is dated and extremely limited. AFT and USU are interested in learning more about WNOLs—women who own farmland by themselves, or co-own it with a husband, siblings or other relatives. While there is a glaring gap in information on both male and female NOLs, the limited research that exists indicates that WNOLs face more gendered barriers than male NOLs to managing their land for long-term sustainability (Petrzelka and Marquart-Pyatt 2011). These barriers can include dealing with tenants who dismiss their conservation goals (Carolan 2005) and infrequent interaction with resource management agencies (Eells 2008). At the same time, women tend to be deeply committed to healthy farmland, farm families and farm communities, potentially making them ideal partners in conservation if these gendered barriers can be overcome (Bregendahl and Hoffman 2010).

**Many of these non-operating landowners are women (or WNOLs).** WNOLs are a critical group of agricultural landowners whose decisions will be important to determining the future of America's farmland, and USDA needs better information to develop appropriate land management recommendations and materials for this audience. As Parsons et al. (2010) note, 70 percent of the nation's private farm and ranch land will change hands in the next 20 years, with women, absentee and non-farming landlords increasing in numbers. These landownership changes will have a profound impact on farm viability and land stewardship.

**Empowering women in agriculture benefits us all.** Information from multi-year evaluative work in Iowa indicates that WNOLs can have a significant impact on the economic, social and environmental sustainability of agriculture and their communities when they are engaged and empowered. An interagency collaboration between Farm Service Agency (FSA), Natural Resource Conservation Service (NRCS), Iowa State University Extension and others reached out in 2010 to over 300 WNOLs in Iowa with surveys and listening sessions and found that: 1) social support was fundamental to social risk management strategies that women use to act in the best interests of themselves, their families, communities and land; 2) empowering women financially, socially and politically was important to conserving Iowa's land and water; and 3) growing the leadership capacity of women in agriculture benefits the communities in which they live (Bregendahl and Hoffman 2010). WNOLs who had been engaged through structured

learning sessions were more likely to establish or update estate plans, draft or revise leases, create trusts and prepare wills and farm plans, and take on new leadership roles by serving on community-based committees, boards, civic organizations, producer associations and other assorted groups.

**By 2030, older women may own 75 percent of transferred farmland.** WNOLs have been shown to have a strong interest in learning more about (1) their rights as landowners, (2) best management practices, (3) communicating effectively with their tenants, and (4) state and federal conservation programs available to help them. The opportunity to reach this group of women is anticipated to reach a high point over the next decade, as the demographics of farmland ownership change; with male farmers passing away, and women in their 60s, 70s and 80s inheriting farmland. By one estimate, older women will own about 75 percent of transferred farmland in the next two decades (Kohl 1999).

**Helping WNOLS implement conservation on their leased lands increases the sustainability of agriculture.** This research seeks to understand and overcome barriers WNOLs face in implementing conservation on their leased land. We pay particular attention to the landlord-tenant relationship and conservation information needs. Getting more conservation on the ground is particularly critical because 5 percent to 33 percent of cropped acres lack conservation practices to prevent significant loss of soils and nutrients and 46 percent to 62 percent of cropped acres need additional conservation practices to prevent continuing losses of soils and nutrients in regions that USDA has studied so far.<sup>1</sup> Ownership arrangements impact the decision-making behavior of farm operators, affecting production decisions, adoption of technologies and conservation practices that can enhance the productivity of the land (Nickerson et al. 2012). Thus, addressing both the glaring data gap of WNOLs and barriers to conservation implementation on their land is of significant public interest. *The long-term goal of this project is to enhance resource management on agricultural land by providing information to policymakers and natural resource agencies that will assist in the design of more effective resource management and land protection programs for WNOLs.*

**We have identified three key questions to answer.** They include:

1. How does gender and non-operator landownership factor into conservation decision making and behavior on agricultural land?
2. To what extent do gender and non-operator landownership factors vary regionally, in particular with conservation implementation on leased land?
3. How effective are different methods of conservation outreach to WNOLs, does effectiveness differ regionally, and if so, how?

In this white paper, we review the relevant research on NOLs in general and WNOLs more specifically, then detail preliminary research we have conducted thus far.

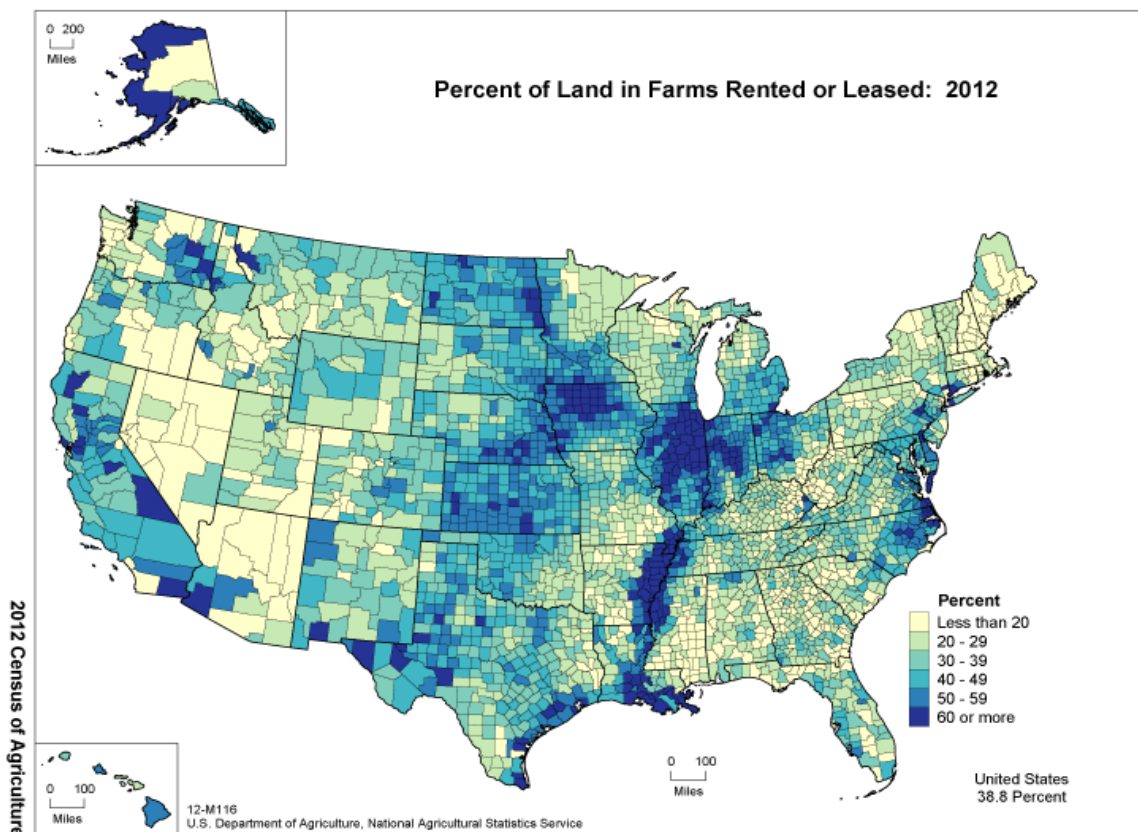
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<sup>1</sup> USDA NRCS Conservation Effects Assessment Project national assessments are available at [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/ceap/?cid=nrcs143\\_01414](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/ceap/?cid=nrcs143_01414)

## WHAT WE KNOW ABOUT LEASED FARMLAND AND ITS OWNERS

### *Understanding Non-Operating Landowners (NOLs)*

**Leased Land is particularly prevalent in the Corn Belt.** Figure 1 shows the proportion of U.S. farmland rented or leased by county. Several concentrated areas have a majority of farmland that was operated by someone other than the owner in 2012. Yet, data on NOLs who lease their land is much less available than information about owner-operators of farmland. The Census of Agriculture focuses on farms and farm operators, and only captures land tenure information from owner-operators (full- and part-owners). An alternative source of national data on agricultural landowners in the United States is provided by the Agricultural Economic Land Ownership Survey (AELOS), which collected information from both landowners and tenants. However, the most recent AELOS surveys were conducted in 1988 and 1999 as follow-ups to the periodic Census of Agriculture (in 1987 and 1997, respectively). AELOS findings in 1999, although dated, show more than half of U.S. landlords were over 65, and three fourths were over 55. Those 65 and older provided 50 percent of all leased farmland in the United States and female landlords were more likely than male landlords to lease out a larger fraction of the land they own (Jackson-Smith and Petzelka forthcoming).



**Figure 1**

**Most of our information on NOLS comes from Iowa.** More detailed and recent analyses of land tenure patterns are only available for a few smaller geographies. The Iowa Land Ownership Survey has collected panel data from a representative statewide sample of land parcels and landowners in Iowa since 1949 (Arbuckle, 2010; Duffy and Johanns 2012). While national trends suggest that the total proportion of farmland that is owner-operated land has hovered near 60 percent since World War II, the Iowa study shows a pronounced decline in the proportion of land under owner operator status (dropping from 55 percent in 1982 to 40 percent in 2012). This is partly because of the aging of the farmland owner population in Iowa, where individuals more than 75 years of age owned 30 percent of Iowa farmland in 2012, and individuals over 65 years of age owned 56 percent of the farmland. This change in owner operator status is also due to the increased importance of female landowners in the state. In 2012, 49 percent of the agricultural landowners in Iowa were WNOLs (Duffy and Johanns 2012). They owned 47 percent of Iowa's farmland and leased 52 percent of all acres. Comparable information on WNOLs in other states does not exist, a critical gap in the data on agricultural landowners.

#### *Landlords and Conservation Decision Making*

**Understanding how landlords and tenants interact is important.** With the large amount of farmland rented, the non-operating landlord-tenant relationship clearly plays a significant role in U.S. agriculture. Understanding land tenure, the different ways people have rights to the land (Gilbert and Harris 1984), has social, economic and environmental implications, such as uneven power relations among the landlord, co-owners, and tenants, rental rates which may not reflect the value of the land asset, and reduced land stewardship.

**How decisions are made about practices on leased lands varies.** Harris (1974) and Mooney (1983) argued that on leased agricultural land, landlords exert substantial control over tenants, and have the decision-making power. Harvey (1982) and Neocosmos (1986) disagreed, and argued that there is frequently total separation of the landlord from control over the land, with the landlord removed from a position of power. Gilbert and Beckley (1993) studied decision-making authority (their proxy for power), by interviewing farmland owners and their tenants in two Wisconsin townships. They found landlords and tenants overwhelmingly agreed that the latter were primary decision makers for conservation decisions on the farm such as application of particular soil conservation practices. Constance, Rikoon and Ma (1996), in their Missouri study of landlords' involvement in decision making on rented agricultural land found landlords were most likely to be involved in conservation program participation decisions, least likely to be involved in pesticide decisions (75 percent of both NOLs living on and off their farmland gave this decision-making control to the tenant); and overall, less involved in all of the agricultural decision-making practices. They also found landlords who had a share lease with their tenant versus a cash lease were significantly more involved in decision making, similar to work by Rogers and Vandeman (1993) who, using the 1988 AELOS data, found those landlords who were more involved in decision making had past farming experience, lived closer to the land and rented on a crop-share basis rather than a cash rent basis. The above research findings that show the tenant as the primary decision maker on the leased land are consistent with the nationwide 1999 AELOS findings (AELOS 1999).

## HOW GENDER AFFECTS ON-FARM DECISIONS ABOUT CONSERVATION

### *Gender and Conservation Decision Making*

**NOLs may relate differently to their tenants depending on gender.** Effland et al. (1993), using the 1988 AELOS data, looked specifically at gender and conservation decision making. They examined differences in involvement in farm management decisions and found that female landlords were less likely to make farm management decisions than male landlords. Rogers and Vandeman (1993) found younger landlords, both male and female, more involved in on-farm management decisions and female landlords less likely than male landlords to participate in choices of fertilizer and chemical practices on leased land. Gilbert and Beckley (1993) argued that what may be occurring is a situation of a dominant tenant-subordinate landlord relationship. More explicitly, they suggested those being dominated include “retired farmers, small landowners and widows” (Gilbert and Beckley 1993, p. 578) and argued for more attention to be given to this perspective, both conceptually and empirically.

**WNOLs in the Midwest often feel excluded from farm decision making.** Recent research has more directly examined gender in on-farm conservation decision making. For example, in his Iowa study of WNOLs, Carolan (2005) found that female landlords would self-censor and were reluctant to discuss implementation of sustainable agricultural practices with their tenants, fearing they would “scare away good tenants” (p. 396). Carolan (2005, p. 402) stated, “all of the female landlords described inequitable power relations between themselves and their male tenants. Specifically, they expressed feelings of exclusion [and] alienation [from the farm decision making].” In her study of Iowa women farmland owners, Eells (2008) found deception of female landlords occurring by some tenants, particularly in terms of potential soil conservation measures, which would be presented to the female landlord by the male tenant most often in “an authoritative way as not being very practical or effective” (p. 67). Eells also found that conservation and stewardship values of the women can be silenced when the tenants are relatives, and environmental concerns are subdued in order to maintain “peace within the family,” suggesting, “... it may be possible that women with non-kin tenants could exert more influence [over their tenant] when asking for conservation practices” (p. 68).

**Additional obstacles to conservation decision making.** A quantitative study of the role of gender in conservation decision making in four Great Lakes counties found WNOLs less likely to be involved in conservation decision making on their land if they were older, retired, inherited the land, co-owned the land with a sibling or rented to a farmer not related to them. By contrast, for male landlords, involvement in conservation decision making on the land was reduced only when a non-relative farmed the land (Petrzelka and Marquart-Pyatt 2011), indicating a much more complicated situation for WNOLs involvement in conservation decision making than for male NOLs.

### *Regional Differences in Landlord-Tenant Decision Making*

**Indications of regional differences in how NOLs interact with tenants exist.** The limited research on NOLs also suggests regional differences may exist in involvement in decision making. For example, Rogers and Vandeman (1993) found landlords in the Midwest and West to be more actively involved on their rented land than those in the South and Northeast. This

is partially explained in the literature by noting differences in labor and land tenure in the historical development of farming regions. In California and the South, land tenure relationships have been portrayed as coercive (Wells 1987), while Midwestern landlord-tenant relations have typically been complementary and harmonious (Salamon 1992).

**But the studies do not consider the role that gender might play.** However, these studies do not systematically examine the landlord-tenant relationship by gender. It may be in the Midwest, as Carolan (2005) and Eells (2008) argue and our preliminary findings (detailed below) suggest, women feel uncomfortable talking to family members or tenants about making changes in farm management practices. Women often “inherit” a tenant along with farmland. This tenant may be a neighbor, friend or family member, who goes to church with the landowner and is part of her community. Thus, there may be tremendous social pressure to forego questions or problems that arise related to farm management and express or imply criticism of the tenant (Eells and Adcock 2012). These social obstacles, which have economic and environmental implications, may or may not be present in other regions of the country. For example, Pfeffer (1983) details the social origins of differing systems of farm production in various U.S. regions, noting while the Northern Plains and Midwest region were historically very much “family farming,” in California the system is that of corporate farming, while in the South, the dominant system was that of share cropping. These differences in farm production systems may result in differing landlord-tenant relations, with region specific constraints faced by both the WNOL and the tenant varying with the system of farm production (Pfeffer 1983). For example, there may be less social pressure on WNOLs in California to maintain harmonious relations with their tenant. Due to the lack of attention to this possible variability, existence of regionally gendered differences in the landlord-tenant relationship as they relate to conservation remains unknown.

#### *WNOLs and Conservation Outreach*

**WNOLs are less likely to interact with conservation professionals.** Research by the project team and others has found NOLs are less likely to have personal contact with local extension and natural resource agency staff, leading to lower levels of resource management knowledge about local environmental conditions (e.g. Redmon et al. 2004; Petrzelka, Buman, and Ridgely 2009). This lack of contact is even more pronounced among WNOLs (Petrzelka 2012, 2014). This is problematic given the percentages of elderly women owning land are expected to rise over the next decade as more women inherit farmland from spouses and parents (Eells and Adcock 2012).

**Midwestern WNOLs lack the information and confidence to implement conservation practices.** Although WNOLs in the Midwest have consistently indicated strong conservation values in surveys, they report a lack of information and confidence in implementing conservation practices, often reporting that they feel intimidated or ignored when they ask tenants or agency staff questions about land management or conservation (Eells and Adcock 2012). In 2007, women over the age of 65 owned over one-fourth of Iowa’s farmland and women 75 years or older owned 10 percent of Iowa’s farmland (Duffy and Smith 2008). Eells (2008) found that conservation materials used by Iowa conservation outreach agencies and organizations do not appeal effectively to this demographic; for example, none of the photos in the brochures are of older women and the language tends to be technical and full of unfamiliar

terms and acronyms. Thus there are gendered barriers to participation in conservation outreach—and female landowners provide unique challenges to those promoting land conservation goals. Little is known about whether these patterns are also found in other regions.

**Targeted outreach to WNOLs can result in women taking action.** The Women, Food and Agriculture Network (WFAN<sup>2</sup>) has developed and used participatory, women-only learning circles in the Midwest to deliver information that informs WNOLs about conservation concepts and options and empowers WNOLs to take conservation action (WCL 2014). Since 2012, AFT has collaborated with WFAN to extend learning circles into Illinois and Indiana. AFT is also part of a recent USDA NRCS Conservation Innovation Grant that has enabled WFAN to provide training and resources to conservation professionals to expand this work into Nebraska, Minnesota, Wisconsin and Missouri as well as Iowa, Illinois and Indiana. Research in adult education shows that adult learners of both genders are most likely to take action when information is offered in this setting, and when they feel comfortable asking questions and sharing information with one another, as opposed to traditional classroom presentation-style methods of information delivery (e.g. Brookfield 1986; Wenger 1988). Of 45 WNOLs who participated in the WFAN pilot project in Iowa in 2009, 50 percent took at least one conservation action within the following year. In the following years, WFAN completed 15 learning circles with 118 WNOLs in Iowa, Nebraska and Wisconsin who each owned, on average, 330 acres of farmland. Fifty-two percent of the women made at least one change in farm management to improve soil and water conservation within 6 to 12 months of the learning circle (Adcock 2012). While the learning circles have been shown to be an effective outreach tool and a means of learning more about the concerns and needs of WNOLs, the program has had limited use outside the Midwest region and to what extent Midwest WNOLs are similar or different to WNOLs elsewhere is unknown. AFT recently started testing the approach in Virginia and Maryland. Other farming regions may have different obstacles to conservation implementation that may require different approaches to help WNOLs achieve conservation goals on their leased farmland.

## OUR PROJECT

### *Ongoing Activities by Project Personnel*

**We are starting to secure the information to begin empowering WNOLs.** Over the last year, our team has conducted preliminary research on WNOLs and barriers to conservation implementation on their land, with funding obtained from Rachel’s Network, USDA Economic Research Service and The Mosaic Company Foundation. We have completed and are currently testing a draft WNOL survey. Detailed survey questions focus on conservation activities and decision-making authority and the nature of the landlord-tenant relationship, with a specific focus on types of lease arrangements, quantity and quality of communication with tenant, and degree of landlord-tenant involvement in operational and conservation decision making on the land. In addition, we include questions on types and level of interest in educational activities, sources of conservation information and preferences on methods of conservation outreach. The survey benefited from significant input from our Advisory

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<sup>2</sup> A nationwide group whose mission is to link and empower women to build food systems and communities that are healthy, just, sustainable, and that promote environmental integrity (wfan.org).



Committee<sup>3</sup> and several Rachel’s Network members who critically reviewed and commented on our drafts. We are convening focus group meetings with WNOLs in all 10 USDA production regions to test the survey and learn more about these women (see page 18). So far, we have pilot tested the survey with focus groups of WNOLs in Medina, North Dakota<sup>4</sup> (n=5), Harrisonburg, Virginia<sup>5</sup> (n=8) and Lebanon, Indiana<sup>6</sup> (n=6). After administering the survey, we engage in a two-hour discussion with the WNOLs regarding the survey (including length, confusing questions, regionally appropriate terminology and specific obstacles to conservation implementation) as well as land management issues and concerns the women have.

## PRELIMINARY FOCUS GROUP RESULTS

**Focus group results from Virginia, Indiana and North Dakota.** The preliminary data is based on a sample of three focus groups in Appalachia, the Corn Belt and the Northern Plains. This data helps identify trends across these different regions, allowing for the eventual creation of more targeted conservation outreach strategies. Among the three regions similarities exist but the data also reveals stark difference, and therefore, an impetus to develop targeted outreach strategies. The following sections examine WNOLs’ “Demographic and Land Characteristics,” “Decision Making on Land,” “Conservation Decision Making,” “Enrollment in Conservation Programs,” “Lease and Tenant Characteristics,” “Relationship with Renters” and “Interest in Land Management Information Activities.”

### *Demographics and Land Characteristics*

**Regional differences show up in income, acreage, number of owners and use of the land.** Table 1 includes selected demographics and land characteristics of the respondents. Across all three regions preliminary data revealed that WNOLs in Appalachia have higher rates of household income compared to those in the Corn Belt and Northern Plains, with those in the Northern Plains having the lowest household income rates. Although there is not a significant difference in average age, those in the Northern Plains tend to be slightly younger. Average acreage differed dramatically, with those in the Northern Plains owning more than four times as much land as those in Appalachia and twice as much as those in the Corn Belt. Interestingly, WNOLs in the Corn Belt tend to purchase their land, while in Appalachia and the Northern Plains there is a more even split between WNOLs that purchase and inherit their land. There is more sole ownership of agricultural land in Appalachia than the other regions, and more non-resident ownership of land in the Northern Plains and Corn Belt than Appalachia. Appalachia WNOLs were much more likely to identify as a farmer (all eight indicated they consider themselves to be farmers) while only half of the WNOLs in the Corn Belt and Northern Plains identified themselves as a farmer. There is a definite split in the type of activity done on the land (Appalachia WNOLs only use the land for recreation, and Corn Belt and

<sup>3</sup> Bruce Ahrens, Farmers National Company, De. Nelson Bills, Cornell University, Dr. Allison Borchers, USDA ERS, Ed Cox, Drake University Agricultural Law Center, Jennifer Dempsey, AFT Farmland Information Center, Dr. Mike Duffy, Iowa State University, Ginger Harris, USDA National Agricultural Statistics Service, Dr. Larry Redmon, Texas A & M University, Jamie Ridgely, Agen, and Kathy Ruhf, Land For Good. John Philip Wyek, Strategies Consulting, has provided facilitation services.

<sup>4</sup> Representing the Northern Plains USDA Production Region.

<sup>5</sup> Representing the Appalachia USDA Production Region.

<sup>6</sup> Representing the Corn Belt USDA Production Region.

Northern Plains only use the land for production). Lastly, nearly all WNOLs gave some importance to renting their land as a source of income for the household.

<b>Table 1. Demographics and Land Characteristics<sup>‡</sup></b>			
	<b>Appalachia</b> (n = 8)	<b>Corn Belt</b> (n = 6)	<b>Northern Plains</b> (n = 5)
<b>Household Income</b>			
≤ \$25,000	1	0	1
\$25,001 - \$75,000	0	1	1
\$75,001 - \$125,000	3	2	1
\$125,001 - \$175,000	1	0	0
≥ \$175,001	1	1	1
<b>Average Age</b>	71	72	69
<b>Average Acreage</b>	179	475	912
<b>Method of Acquisition of Land</b>			
Purchased	4	5	2
Inherited	3	1	3
Marriage or divorce	1	0	0
<b>Indicated own land with others</b>	0	3	2
<b>Indicated Identify as Farmer/Rancher</b>	8	3	3
<b>Production activity on land</b>	0	6	4
<b>Recreational activity on land</b>	5	0	0
<b>Importance of rented farmland as source of income for household</b>			
Not at all important	1	1	0
Slightly to somewhat important	3	1	0
Important to very important	4	4	5
<sup>‡</sup> For complete survey results, please contact the authors at <a href="mailto:peggy.petrzelka@usu.edu">peggy.petrzelka@usu.edu</a>			

*Decision Making on Land*

**Whether tenants or WNOLs make decisions about specific practices varies.** Examining how WNOLs make decisions regarding their land reveals interesting trends (Table 2). For the most part, across all three regions, each landowner considered themselves to be the primary decision maker for the land. However, when asked about specific decisions, WNOLs very rarely see themselves as the sole primary decision makers. For example, in Appalachia regarding “tillage & harvesting practices,” “crop varieties/rotations,” and “livestock decisions,” WNOLs see their operator as the primary decision maker. It is only with “crop inputs,” “conservation practices,” and “maintaining and repairing fences” that WNOLs see themselves as decision makers but this is still a shared duty with their operator. In both the Corn Belt and Northern Plains, WNOLs leave “crop inputs,” “tillage and harvesting practices,” and “crop varieties/rotations” as the sole responsibility of their operator. Interestingly, the only decision that is shared between operator and the WNOLs amongst all three regions are decisions made regarding “conservation practices.”

<b>Table 2. Decision Making on Land</b>			
	<b>Appalachia (n = 8)</b>	<b>Corn Belt (n = 6)</b>	<b>Northern Plains (n = 5)</b>
<b>Primary decision maker for land</b>			
Myself	8	5	4
Child(ren)	0	1	0
Sibling(s)	0	0	1
<b>Indicated primarily responsible for following decisions</b>			
Crop inputs (e.g. chemicals, seed)	0	1	0
Tillage & harvesting practices	1	1	0
Crop varieties/rotations	1	1	0
Conservation practices	3	1	0
Maintain & repair fences	3	2	0
Livestock decisions (e.g. stocking rate, rotational grazing)	1	3	0
<b>Indicated tenant primarily responsible for following decisions</b>			
Crop inputs (e.g. fertilizer, seed, chemicals)	2	4	4
Tillage & harvesting practices	5	4	4
Crop varieties/rotations	4	4	4
Conservation practices	1	2	2
Maintain & repair fences	0	1	1
Livestock decisions (e.g. stocking rate, rotational grazing)	4	3	1
<b>Indicated WNOL and tenant share following decisions</b>			
Crop inputs (e.g. fertilizer, seed, chemicals)	5	1	1
Tillage & harvesting practices	1	1	1
Crop varieties/rotations	1	1	1
Conservation practices	4	3	2

	<b>Appalachia (n = 8)</b>	<b>Corn Belt (n = 6)</b>	<b>Northern Plains (n = 5)</b>
Maintain & repair fences	4	0	2
Livestock decisions (e.g. stocking rate, rotational grazing)	1	0	1

*Conservation Decision Making*

**Many considerations factor into decision about conservation.** When making conservation decisions regarding their land, all three regions strongly agree that it is important to consider “soil quality” and “future availability of land for agriculture” (Table 3). While Appalachia and the Corn Belt respondents also strongly agree it is important to consider water quality, the Northern Plains diverge slightly and believe it is important to consider “need for income from the land” when making conservation decisions. For the most part, all three regions agree that all of the considerations are important but “neighboring landowners” and “surrounding communities” tend to be lower priorities. “Needs of the tenant” also differ among all three regions, as WNOLs in Appalachia do not feel it is as important to consider needs of their tenant (compared to those in the Corn Belt and Northern Plains) when it comes to conservation decisions.

	<b>Appalachia (n = 8)</b>	<b>Corn Belt (n = 6)</b>	<b>Northern Plains (n = 5)</b>
<b>When making conservation decisions regarding my land it is important to consider<sup>‡</sup></b>			
Soil quality	<b>1.57</b>	<b>1.33</b>	<b>1.4</b>
Water quality	<b>1.43</b>	<b>1.4</b>	1.5
Future availability of land for agriculture	<b>1.75</b>	<b>1.33</b>	<b>1.4</b>
Need for income from the land	1.88	1.83	<b>1.4</b>
Needs of the tenant	3	2	1.8
Wildlife habitats	2	1.5	2.2
Biodiversity	1.86	2	2.75
Endangered species	2.14	2	2.4
Neighboring landowners	2.38	2.5	2
Surrounding communities	2.57	2.33	2
<sup>‡</sup> On a scale where 1 = Strongly Agree to 5 = Strongly Disagree			

*Enrollment in Conservation Programs*

**Enrollment of leased land for conservation cost-share funding is low.** The preliminary data in Table 4 indicates that WNOLs in Appalachia are enrolled in conservation programs or have received financial or technical support in the past five years at a slightly higher rate than those in the Corn Belt and Northern Plains, with the Northern Plains having the lowest participation levels. Across all three regions, “Conservation Reserve Programs” have the highest participation amongst WNOLs while “Cost Shares” have the lowest. The data seems to support the thrust of the overall study, as enrollment, financial or technical support dealing with conservation programs never goes above half of the respondents for any region.

Table 4. Enrollment in Conservation Programs <sup>‡</sup>			
	Appalachia (n = 8)	Corn Belt (n = 6)	Northern Plains (n = 5)
<b>Number indicating enrolled or have received financial or technical support in past five years in:</b>			
Conservation Reserve Program	4	2	2
Cost Share	2	2	0
Planning Assistance	3	3	0
Conservation Easements	3	2	1
Received assistance but do not recall name	2	2	0
<sup>‡</sup> Number represents respondents indicating “yes”			

*Lease and Tenant Characteristics*

**Most leases are cash rent and the WNOL’s relationship to her tenant varies.** Regarding lease agreements, it is most common for there to be a cash rent with a fixed payment for all three regions, although two respondents in each region have verbal lease agreements (Table 5). The predominant type of lease is written. Again, while there is some variability across all three regions, the most typical type of lease agreement is year to year. The relationship that the WNOL has to their tenant reveals a bit more variability among regions. In Appalachia, relationship to the tenant is split evenly amongst “family members,” “friends of the family,” “neither a relative or friend” and “other.” But in the Corn Belt, the most common relationship WNOLs have with their tenant is one of being a “friend of the family,” while this relationship does not exist for WNOLs in the Northern Plains. Unsurprisingly, nearly all tenants are male.

<b>Table 5. Lease and Tenant Characteristics</b>			
	<b>Appalachia (n = 8)</b>	<b>Corn Belt (n = 6)</b>	<b>Northern Plains (n = 5)</b>
<b>Lease Agreement</b>			
Cash rent with fixed payment	7	2	4
Cash rent with flexible payment	0	1	0
Crop share	0	1	0
Cash rent and crop share	1	0	0
Other	0	2	1
<b>Type of Lease</b>			
Written	5	4	3
Verbal	2	2	2
<b>Duration</b>			
Year to year	6	6	3
Every two years	0	0	1
Every three years	2	0	1
<b>Relationship to Tenant</b>			
Family member	2	1	2
Friend of family	2	4	0
Neither relative or friend	2	1	2
Other	2	0	1
<b>Tenant Gender</b>			
Male	8	6	4
Female	0	0	1

*Relationship with Renters*

**WNOLs look for similar qualities in their tenants.** WNOLs tend to assess qualities of current or potential renters in similar ways, regardless of the region, with all regions agreeing that every quality is at least “important” (Table 6). All regions agree that “trustworthiness” is a very important quality, and at least two regions agree that “ability to avoid contaminated waterways” and “that they care about my land” are very important. The Northern Plains differ slightly in that they more unanimously agree that “trustworthiness,” “ability to avoid contaminated waterways,” “ability to maintain soil productivity,” “reliability in paying rent on time,” “that they care about me” and “that they care about my land” are very important qualities, while the other two regions do not display this much unanimous agreement. The one quality that each region agreed on as being less important is the “length of time the

tenant (or their family) has rented” from the WNOL. Another slight difference in the data is that WNOLs in Appalachia place less importance on “ability to maintain wildlife habitat” than those in the Corn Belt and Northern Plains.

<b>Table 6. Qualities of current or potential renters</b>			
	<b>Appalachia (n = 8)</b>	<b>Corn Belt (n = 6)</b>	<b>Northern Plains (n = 5)</b>
<b>Important qualities when evaluating current or potential renters<sup>‡</sup></b>			
Trustworthiness	4	4	4
Length of time they (or their family) have rented from my family	2	2.83	2.4
Ability to avoid contaminated waterways (chemicals, nutrients, etc.)	3.86	4	4
Ability to maintain soil productivity	3.63	3.83	4
Reliability in paying rent on time	3.5	3.6	4
That they care about me	3.25	3.67	4
That they care about my land	3.88	3.67	4
Ability to avoid soil erosion	3.86	4	3.67
That I like them as a person	3.88	3.83	3.6
Amount of rent they will pay per acre	3.25	3.4	3.6
Ability to maintain wildlife habitat	2.86	3	3.25
<sup>‡</sup> On a scale where 1 = Not at all important to 4 = Very important			

**How often WNOLs communicate with their tenants varies.** While low across all regions, Appalachia WNOLs communicated with their tenant specifically about conservation more than the WNOLs in the other regions (an average of four times a year compared to less than two times for Northern Plains WNOLs and two times a year for Corn Belt WNOLs). This may be due to the types of agricultural activity going on in the various regions (crop production in the Northern Plains and Corn Belt while grazing of cattle in Appalachia) or due to the differing farming cultures where the social pressure to, as one Corn Belt WNOL stated, “be nice to your tenant and not demand things” is not as prevalent in Appalachia.

*Interest in Land Management Information Activities*

**WNOLs want to connect with their peers and receive more information.** Across all three regions, when asked about their level of interest in six types of land management information activities, “Belonging to a network of women farmland owners who face similar challenges as you do” received the highest ranking, followed by “Having access to educational materials developed expressly for women like you” (Table 7). Additionally, WNOLs in Appalachia and the Northern Plains indicated that “Participating in free discussions with your peers on a regular basis to compare notes/chat with women conservation professionals” was something



they were interested in. Lastly, for all three regions “Working with a private business that specializes in providing conservation services targeted to women landowners” was the least important of the types of information activities offered.

Table 7. Level of Interest in Land Management Information Activities			
	Appalachia (n = 8)	Corn Belt (n = 6)	Northern Plains (n = 5)
<b>Indicated interest in the following activities<sup>‡</sup></b>			
Access to education materials developed expressly for women like you	3.63	3	3.4
Working with a private business that specializes in providing conservation services targeted to women landowners	2.75	2.33	2.6
Working with a government agency in providing conservation services targeted to women landowners	3.13	2.83	3
Belonging to a network of women farmland owners who face similar challenges as you do	3.63	2.83	3.6
Participating in free discussions with your peers on a regular basis to compare notes/chat with women conservation professionals	3.25	2.5	3.6
<sup>‡</sup> On a scale where 1 = Not at all interested to 4 = Very interested			

**CONCLUSIONS SO FAR**

**WNOLs are regionally distinct.** The analysis of preliminary data revealed that WNOLs in Appalachia, the Corn Belt and the Northern Plains have distinct characteristics. When examining demographics and land characteristics Appalachian WNOLs tend to have higher rates of household income, use the land for recreation, have sole ownership of agricultural land, and identify as farmers compared to the Northern Plains and Corn Belt WNOLs. Regarding decision making on the land, all three regions tend to share responsibilities with their tenants, as very few WNOLs indicate they are the primary decision maker for particular decisions. Interestingly, when asked in general terms whether they consider themselves to be the primary decision maker on the land, WNOLs in all three regions indicate themselves as so, most notably regarding conservation practices. For each region WNOLs tend to agree that priority should be given to decision making regarding conservation on their land. WNOLs in the Northern Plains diverge slightly though in believing that “need for income from the land” is an important consideration when making conservation decisions. All considerations regarding conservation are important but all three regions tend to agree that “neighboring landowners” and “surrounding communities” tend to be less important priorities.

**Participation in conservation programs is low.** Although there are differences, the preliminary data suggests that all three regions have low enrollment in conservation programs, as well as financial or technical support, with WNOLs in Appalachia having a slightly higher

participation rate. Lease and tenant characteristics tend to be relatively uniform across all three regions. The predominant type of lease is a written cash rent with a fixed payment renewed on a year to year basis, almost exclusively to male tenants. The most common relationship for WNOLS to have with their tenant in the Corn Belt is one of being “friend of the family,” which is not the case for WNOLS in Appalachia and the Northern Plains. WNOLS also agree on the qualities they use to evaluate current or potential renters, with “trustworthiness” being the most important quality, followed by “ability to avoid contaminated waterways” and “that they care about my land” although the Northern Plains tend to have more unanimous agreement than the other two regions. Lastly, all regions have a high interest in participating in land management information activities.

**Hints of regional differences may indicate a need for region-specific outreach strategies.** A vast amount of similarities exist between all three regions, but the preliminary data also reveals trends that indicate interesting differences. This suggests that as more data is collected different conclusions may be drawn that will allow for the development of specific conservation outreach strategies, targeted to each region.

**Next steps.** We plan to convene seven more focus groups before September 2014 to complete our sampling of WNOLS in the 10 USDA Production Regions (Figure 2). AFT and USU, along with Iowa State University and the Women, Food and Agriculture Network have a proposal pending with USDA National Institutes of Food and Agriculture that will enable us to survey WNOLS in 10 states in five of the USDA Production Regions.

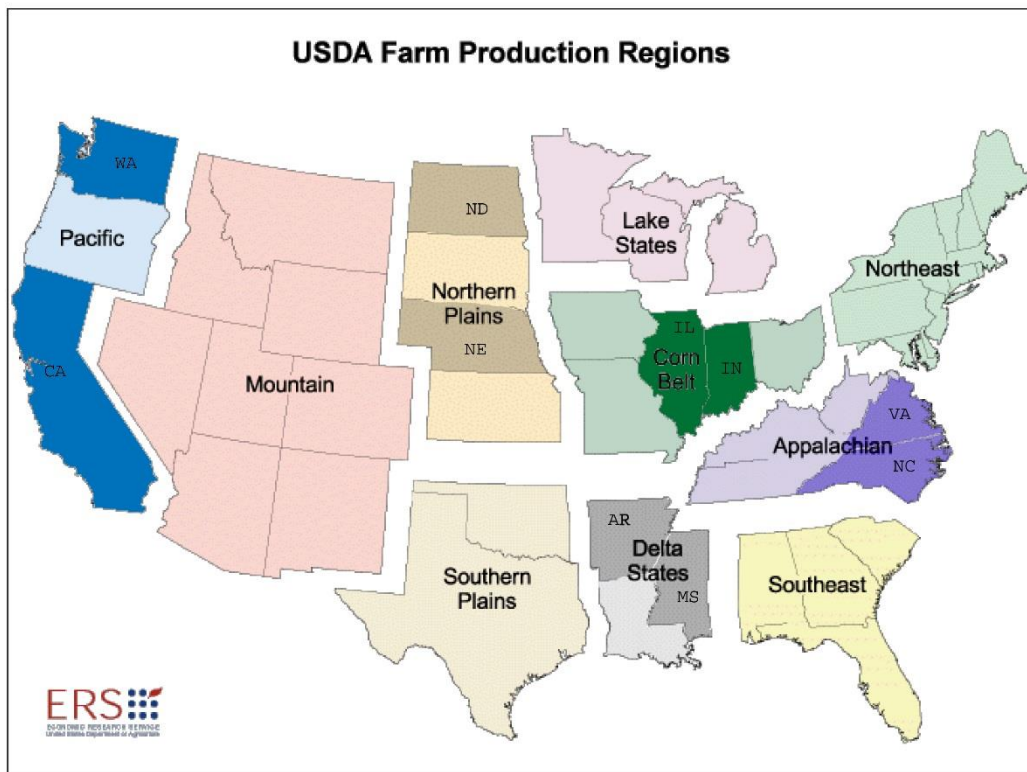


Figure 2

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