

DOING GENDER WHEN HOME AND WORK ARE BLURRED:
WOMEN AND SEX-ATYPICAL TASKS
IN FAMILY FARMING

By

JOLENE D. SMYTH

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the requirements for the degree of

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To the Faculty of Washington State University:

The members of the Committee appointed to examine the dissertation of
JOLENE D. SMYTH find it satisfactory and recommend that it be accepted.

Chair

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IN FAMILY FARMING

Abstract

by Jolene D. Smyth, Ph.D.
Washington State University
August 2007

Chair: Monica K. Johnson

This dissertation is concerned with the production of gender and gender identities among women in a setting, the family farm, where traditional strategies of gender production such as bodily displays and the division of labor are significantly challenged. The first chapter uses both survey data and qualitative interview data to examine how involvement in farming and ranching affects how feminine or masculine women feel they are and how they feel they compare to their perception of society's ideal woman. The results indicate that increased involvement is associated with feeling more masculine and feeling larger discrepancies between self and society's ideal woman. They also reveal that many of the women try to formulate an alternative version of femininity ("capable femininity") that incorporates their farm and ranch work, but are ultimately held accountable for the more traditional version of femininity that has previously been termed "emphasized femininity." The second chapter examines how the farm/ranch women "do gender" in the farm/ranch setting. Both qualitative and quantitative analyses show that they rely heavily on "gender products" to symbolize their femininity even when the "doing" of the tasks that produce them are long past. These findings suggest that the intensive focus by gender scholars on the "doing" has obscured elements that are equally important, and perhaps growing in importance, in the production of gender. The third chapter tests whether gender

mediates previously reported negative relationships between farm/ranch stressors and well-being and positive relationships between social and personal resources and well-being. This chapter also examines how gender is related to farm women's depression and self-esteem. The results indicate that gender has effects on well-being independent of either stressors or resources, and, with a few small exceptions, does not mediate the relationships between these variables and well-being.

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CHAPTER 1

INTRODUCTION AND METHODOLOGICAL APPROACH

The broad topic of this dissertation is gender. While it seems so simple and “natural,” gender is an incredibly important and complex social phenomenon. Along with sex-categorization it provides the basis for one of the most fundamental social divisions among human beings. As such it has been the source of much theorizing and study in sociology. This work has evolved over the years from considering gender to simply be a social attribute of individuals (i.e., the social parallel of biological sex) to seeing it as a system that extends into and organizes various levels of society. In addition to gender at the individual level, we now talk about gender at the interactional level (Ridgeway and Smith-Lovin 1999; West and Zimmerman 1987) and in an even more macro sense, we also now see that entire institutions are “gendered” (i.e., organized along lines of production and reproduction) (Acker 1992). In this sense, gender has come to be recognized as a social process that, while very salient and consequential at the individual level, is much larger than any one individual or even group of people engaged in interaction.

As such, the concept of gender, as it is currently understood in sociology might be compared to a three-dimensional object in the sense that what you see largely depends on the direction and level from which you approach it, but ultimately each vantage point is connected to the others in important ways. At one extreme we can take approaches that focus very much on the individual. At the other we can study gender as a larger organizing and structuring principle for entire institutions. This dissertation fits squarely within the current tradition of studying gender at multiple levels and the linkages between those levels. In particular, it focuses on identity, interaction, and the nexus between these two levels as they pertain to gender production.

The macro aspects of gender are dealt with very minimally, but they are relevant to the extent that they provide important context for understanding the elements of gender explored herein.

The occupation of family farming and ranching provides the context in which gender is examined for this project. This occupation was strategically chosen primarily because it has a number of unique features that I believe can give us leverage to advance the sociological study of gender. In short, it is an occupation in which the production of gender might be challenged by the necessity of doing sex-atypical jobs on a regular basis. Family farming and ranching is also a context in which gender itself has received very little attention. To clarify, there is a growing body of research within rural sociology that examines the contributions that women make to farming and ranching (i.e., their involvement) and another that examines how agriculture is gendered (i.e., organized primarily around masculinity), but there is very little research that takes gender itself as the concept of interest and examines how it is produced and sustained in this setting. My hope is that in addition to contributing to the mainstream sociological understanding of gender, this dissertation will also be the beginning of an effort to fill that gap in the rural sociological research.

This dissertation is arranged around three interrelated research questions, each of which is addressed in its own chapter. Each chapter is written as an independent research paper that can stand alone if needed. However, all three of the chapters arise out of the recognition that the organization of family farming as well as the tasks women often do on their farms and ranches (as identified in the rural sociological literature [Sachs 1983; Rosenfeld 1986]) would seem to impede the production of gender through the primary means for producing it that have been identified in mainstream sociological literature. More specifically, sociologists have found that gender is produced by upholding a gendered division of labor (Berk 1985; Coltrane 1998), by

sustaining a separation between the productive and reproductive spheres, and through the strategic use of bodily displays (i.e., hair, makeup, clothing, etc.) (Herbert 1998). However, rural sociologists tell us that farm and ranch women often perform sex-atypical tasks (Rosenfeld 1986), that the necessity of their performing such tasks precludes them from using strategic bodily displays of femininity (Brandth 2006; Pearson 1979; Silvasti 2003), and that the productive and reproductive spheres are very much blurred in farm families (Adams 1993; Kohl 1976).

Within this context, chapter 2 asks and attempts to answer the question, what is the relationship between work activities and women's perceptions of their femininity and masculinity (i.e., gender identity). In other words, does women's involvement in their farms and ranches in fact challenge their gender identities in the ways that the literature would suggest? To explore these questions, I first look at how the general roles that women fulfill on their farms and ranches are associated with both how feminine/masculine they consider themselves to be (gender self-perceptions) and how much they feel that their femininity/masculinity differs from what they perceive to be society's ideal woman (gender discrepancies). I then look at how the extent to which women are involved in farm/ranch tasks are related to gender self-perceptions and discrepancies and follow that with an exploration of how involvement in particular types of tasks might influence gender self-perceptions and discrepancies. I end the chapter by drawing on interview data to contextualize the previous findings, focusing on how the women define femininity and how they experience the relationship between their farm/ranch involvement and their femininity/masculinity.

Chapter 3 then picks up where chapter 2 left off to address the question of how farm/ranch women attempt to produce gender when the typical ways that the sociological

literature has identified for doing so are challenged by the farm/ranch context. This chapter is situated squarely within interactional perspectives on the production of gender (West and Zimmerman 1987). However, it draws heavily on interview data to attempt to push the interactional perspectives one step further than they have previously been pushed by arguing that the end products (i.e., gender products) of “doing gender” behaviors might be just as important to the production of gender as the behaviors themselves. The chapter ends with a qualitative test of this theory and a brief discussion of the implications of such an extension of previous interactional gender perspectives.

Finally, Chapter 4 addresses one potential reason these things may matter by exploring the linkage between individuals’ gender self-perceptions and their well-being. Previous rural sociological literature has followed the lead of much mainstream sociological literature (House, Umberson, and Landis 1988; Pearlin et al. 1981; Ross and Mirowski 1989) in examining the effects of stressors, social support, and personal resources on well-being outcomes among farm and ranch individuals (Armstrong and Schulman 1990; Melberg 2003; Walker and Walker 1987), but has generally focused on very tangible or overt stressors such as financial strain and role strain. These works have failed to examine how the ability or inability to enact femininity or masculinity in desired ways might be a source of additional stress that affects outcomes (Burke 1991). To address this question I examine the effects of women’s gender self-perceptions and gender discrepancies on both their depression and self-esteem.

METHODOLOGICAL APPROACH

This study was designed to take advantage of the strengths of both qualitative and quantitative data and to use these two types of data together to give the most complete and accurate answers to the research questions as possible. Qualitative data provides an abundance

of context and nuance not available in quantitative data, but it is generally limited in its generalizability. In contrast, quantitative data is relatively weak in terms of its in-depth descriptive capabilities, but affords a high degree of generalizability. Thus utilizing both types of data would seem to be ideal and this is the tactic undertaken here.

In-Depth Semi-Structured Interviews

In-depth semi-structured interviews were conducted with 55 men and women from 14 primarily wheat farm and 14 primarily cattle ranch (non-dairy) families in Eastern Washington State (See map in Appendix A). Seven of the families raised both commodities, but were coded by their primary commodity. The decision to focus on only two commodity groups was a practical one, made to reduce the complexity of Washington agriculture in an appropriate way for a project of this size. The decision to focus on wheat and cattle operations in particular was an attempt to represent both animal intensive and machinery intensive types of agriculture in the state because women's involvement in these types of agriculture is expected to differ (Bokemeier and Garkovich 1987; Simpson, Wilson, and Young 1988). In particular, women might be expected to be more involved in livestock-intensive operations because much of the work that has to be done there is manual (i.e., more people are needed), rather than machine labor. In comparison, they are likely less involved in machine-intensive operations because more of the work can be done by a single person running a large piece of machinery (which is commonly associated with masculinity) (Brandth 2006). In addition, these two commodities in particular represent a substantial portion of Washington agriculture as they represent the 3rd (cattle and calves) and 4th (wheat) largest commodities in the state and together account for nearly 20 percent of state total farm receipts in 2005 (Economic Research Service USDA 2007).

The interviews were conducted from April to November 2006 in the homes of the respondents. Men and women were interviewed separately in the order that was most convenient to them. In only one exception the couple was interviewed jointly because of their other time obligations. The interviews covered a number of topics including: demographics, paths into farming, the division of labor, off-farm employment, decision making, gender perceptions, the farm/ranch lifestyle, marital relationships, child rearing, and leisure activities. For specifics the interview schedule as well as the consent form for participating in the interview can be seen in Appendix A. The interviews ranged in length from 53 minutes to 3 hours 20 minutes with an average length of 1 hour 38 minutes.

Interview respondents were identified through a snowball sampling technique that started with personal contacts in the local farming community and contacts at the state Cattlemen's Association offices. Respondents were first contacted via a telephone call and told from whom I got their name, the general purpose of the project (i.e., a dissertation study on Washington farm families), and what their participation in the project would entail. Upon agreeing to participate, an interview date and time was established and directions to their homes were obtained. Most of the families contacted agreed to participate. Only four families declined, one of which intended to participate, but had to cancel due to a family emergency. Additionally, within all but one of the families both the husband and wife agreed to participate. In the family that was the exception, only the wife participated.

Overall, the interview respondents were relatively well educated with all of them having at least a high school degree and 84 percent of them having pursued additional education beyond high school (35% had a four year degree). Because many contacts were obtained through the state Cattlemen's Association, the interview families also probably tended to be more likely to be

members and actively involved in such commodity associations. They ranged in age from 28 to 78 years old with a mean age of 50 and they operated operations with a median size of 3,250 acres for the wheat operations and 6,000 acres (300 head) for the cattle operations. The large size of the cattle operations can be attributed to many of the families leasing substantial amounts of range land for grazing.

All of the interviews were digitally recorded and extensive field notes were written as soon as possible after each family's interviews. Recorded interviews were then transcribed verbatim and coded for relevant themes. Throughout this process a system of memoing was used to record potentially useful themes and ideas for analyses. Transcription, coding, and memoing were started immediately after the first interviews were completed and continued throughout the interviewing process so that ideas that arose out of the early interview material could be systematically followed up in later interviews. Data coding happened in two steps. First the transcript materials were sorted into large themes (involvement, doing gender, etc.) and then that material was re-coded into more focused themes within the general themes (housework, yard work, appearance, etc.).

Random Sample Mail Survey

Quantitative data was collected through a mail survey of wheat and cattle operations across the state of Washington. The survey sample was obtained from the Washington Field Office of the U.S. Department of Agriculture/National Agricultural Statistics Service. The goal was to sample approximately 1,500 family farms, half of them primarily producing wheat and the other half primarily producing cattle (non-dairy). The sampling frame of cattle and wheat farms was generated based on the following parameters:

1. Exclude WSU educational farms, Indian Reservations, Washington Department of Fish and Wildlife operations, and cooperative agreements.
2. For the wheat stratum, value of sales must be equal to or greater than \$1,000 (USDA/NASS definition of a farm), the primary type of farm was coded as grain farming (grains, oilseeds, dry beans, & dry peas), and the farm must have reported positive wheat acreage.
3. For the cattle stratum, value of sales must be equal to or greater than \$1,000, the primary type of farm was coded as cattle and calves, the farm must have reported positive head of cattle but less than five head of milk cows.

After sorting by county, a systematic sample of operations was selected. 1,080 operations were sampled from the wheat stratum and 1,160 operations from the cattle stratum for a total of 2,240 operations which were then further refined to yield the final sample. Based on the 2002 census of agriculture, operations that were incorporated with ten or more stockholders and those in which the principal occupation was coded as other than farming/ranching were eliminated from the sample in an effort to focus the sample on family farms where farming was a primary concern. In addition, operations with over 150 minutes of USDA survey time in 2006 were eliminated from the sample. After these exclusions the final sample size was 1,475 operations (732 from the wheat stratum and 743 from the cattle stratum).

Since the sample drawn was of farm/ranch operations and many of the operations did not include contact information for both the man and woman in the farm family, the envelopes were addressed to the primary farm operator. The cover letters then specified that the survey was intended for women in agriculture and asked that the primary adult (age 18+) woman in the household complete and return the survey. The title of the survey that was printed on the front

cover of the questionnaire also indicated that the survey was for women. It was titled, “Family Farming and Ranching in Washington: A Woman’s Perspective.”

The survey instrument itself was developed based on early interviews and on adaptations of the instruments of others who have surveyed women in agriculture (e.g., Jones and Rosenfeld 1981 and Rosenfeld 1986). The questionnaire was printed on 11x17 inch paper and then folded booklet style resulting in twelve 8.5x11 inch pages that contained 52 questions. The front cover was printed in color and included the survey title, a color picture, and contact information for the study coordinator. The rest of the survey was printed in grayscale. The final questionnaire and fielding materials can be found in Appendix B. To ensure that the questions and navigational path were clear to respondents and that the survey length was acceptable, the questionnaire was pre-tested with farm/ranch women from Montana (acquaintances of the study author) before it was finalized.

In implementing the survey a number of principles from the Tailored Design Method (TDM) were applied (Dillman 2007). These included blue, ball-point pen hand signatures on all letters; a \$2 token incentive in the first mailing; self-addressed, postage-paid return envelopes with all questionnaires; and specifically timed mailings. All of the mailings were compiled, folded, stuffed, and sealed at the Social and Economic Sciences Research Center (SESRC) at Washington State University. They were then sent to the USDA mail center at the Colorado Field Office of USDA/NASS where the envelopes were addressed and a respondent id number was printed through a cut-out window in the envelope onto the survey inside. The questionnaires were then sent to the Post Office for mailing. The initial survey was mailed with a cover letter, return envelope, and a \$2 incentive on October 3, 2006. It was followed by a postcard reminder sent to the entire sample on October 16th and then a final mailing containing a new letter and a

replacement questionnaire mailed to non-respondents on November 13, 2006. Data collection ended December 31, 2006.¹

Maintaining the confidentiality of the individuals in the sample was of highest priority for officials at the USDA/NASS Washington Field office. The mailing protocol described above ensured that the investigators at WSU never received the sample list and procedures were undertaken to ensure that they also did not receive identifying pieces of returned mail. Mailings that were returned from the Post Office as undeliverable were sent to the USDA/NASS office in Olympia, Washington, via the return address on the outside envelope. Only the completed surveys were sent back to the investigators at WSU (via the return envelope inside the survey packet). Respondent ID numbers were recorded upon receipt of completed surveys and the list of id numbers was then forwarded back to USDA/NASS for sample management for the third mailing. Since the completed questionnaire did not ask for any identifying information and the investigators at WSU did not have access to the sampling list or undeliverable mailings, the only way for the investigators to know who respondents were was if respondents chose to identify themselves in their answers.

In total, 491 of the 1,475 surveys mailed out were returned completed. Of these, 21 were deemed ineligible for the study, some of them because they were mistakenly answered by men and others because the farm/ranch had been sold but the woman filled out the survey anyway as if they were still farming/ranching. Full disposition codes and response rates for the survey can be found in Table 1.1 and descriptive statistics for the survey respondents can be found in Table

¹ The timing of the mail survey and the interviewing overlapped by nearly two months. Women from two of the families who were interviewed during the overlapping time period revealed to me that they had also received and completed the survey questionnaire.

1.2. Data entry was completed at the SESRC by one data enterer. One third of the questionnaires were re-entered in a data verification step to check for data entry quality. Only a very small number of errors were found and these were corrected.

Additional summary data from the survey can be found at <http://www.crs.wsu.edu/1-07-farmranchwa.pdf>.

Table 1.1: Survey Disposition Codes and Response Rates

Completes	491	Response Rate ^a (%).....	33.3%
Refusals.....	19	Completion Rate ^b (%).....	35.8%
Ineligibles (not completed)	86	Eligible Completion Rate ^c (%).....	34.3%
Return to Senders	18		
Non-Respondent	861		
Sample Size.....	1,475		
Eligible Completes ^d	470		

^a Completes / sample size (AAPOR RR1 – Standard Definitions 2006)

^b Completes / (sample size – ineligibles – return to senders)

^c Eligible completes / (sample size – ineligibles – return to senders)

^d Twenty one completed surveys were deemed ineligible because they were either filled out by men or because the farm/ranch had been sold, but the woman completed the survey as if still farming/ranching.

Table 1.2: Survey Respondent Descriptive Statistics

	Mean			Significance Tests					
	Grain (n=194)	Livestock (n=197)	Both (n=66)	Grain vs. Livestock		Grain vs. Both		Livestock vs. Both	
				t	p	t	p	t	p
Age	54.4	57.6	53.9	-2.64	.009	0.35	.725	2.22	.028
Number of Children	2.4	2.5	2.4	-0.78	.436	0.30	.764	0.77	.443
Yrs. Farming/Ranching	34.5	33.6	35.2	0.48	.632	-0.28	.776	-0.57	.568
Years at Current Farm/Ranch	27.8	24.8	26.9	2.01	.046	0.44	.663	-0.95	.345
	Percent			χ^2	p	χ^2	p	χ^2	p
Education									
High School or Less	17.8	26.5	19.7	4.27	.039	0.12	.731	1.24	.266
Some College/ 2 Yr Degree	42.9	49.5	45.5	1.67	.196	0.13	.722	0.32	.570
4 Yr Degree +	39.3	24.0	34.9	10.47	.001	0.41	.523	2.98	.084
Income									
≤ \$39,999	47.0	38.0	54.8	2.86	.091	1.11	.291	5.36	.021
\$40,000 – \$79,999	33.1	41.9	25.8	2.82	.093	1.13	.288	5.07	.024
≥ \$80,000	19.9	20.1	19.4	0.00	.957	0.01	.929	0.02	.898
Married/Partnered	95.9	91.4	95.5	3.32	.069	0.02	.883	1.17	.279
Raised in Agriculture	43.2	45.1	47.0	0.15	.697	0.29	.591	0.07	.795

Notes: 13 respondents did not provide commodity information. T-tests are two-sided.

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CHAPTER 2

THE RELATIONSHIP BETWEEN FARM WORK AND FEMININITY

Women have been involved in agricultural pursuits throughout history, but that involvement went largely unrecognized and unstudied in rural sociology until the 1980s when the first national survey of women in agriculture was conducted (Jones and Rosenfeld 1981; Rosenfeld 1986). Since that first major study, the topic of women in agriculture has blossomed into its own research area that has uncovered women's extensive involvement in agriculture, both in terms of direct involvement in farm/ranch tasks and in supporting and familial roles. While this body of literature has a lot to teach about women's contributions and place in agriculture, it tends to focus primarily on sex (i.e., male/female); the concept of gender itself, and especially femininity, has gone relatively unexplored in rural sociology (for an exception, see Brandth 1994 and for discussions of masculinity see *Rural Sociology*, Special Issue: Rural Masculinities. 65(4); Brandth 1995; Peter et al. 2000).

The story in mainstream sociology is quite different. Here much focus and attention has been devoted to defining sex (i.e., male/female) and gender (masculinity/femininity) relative to one another and to examining both sex-based inequality and gender issues. Further, one significant area of research within mainstream sociology that is missing from rural sociology is the exploration of how gender itself is constructed through daily social interaction (Berk 1985; Coltrane 1998; Herbert 1998; Martin 2003; McMahon 1995; West and Zimmerman 1987). Most of this research, however, has focused on urban women. Very little attention has been devoted to rural women and farm women have all but been ignored.

Although these two bodies of research have not yet formally been brought together, the information that rural sociologists have compiled on how women are involved in agriculture

suggests that farm life may pose major challenges to the enactment of gender in ways mainstream sociologists have identified as important and thus to women's gender identities. Whether or not farm women experience such challenges is the focus of this paper. In other words, the primary question of the paper is: what is the relationship between women's involvement in farming and ranching and how they experience themselves as gendered beings? To address the question of how involvement affects gender self-perceptions, I will use data from a 2006 random sample survey of women in livestock and grain operations in Washington State as well as interview data from 28 Washington cattle ranch and wheat farm families.

BACKGROUND

Gender theorists in sociology have pointed out that gender exists at multiple levels and that there is substantial linkage or interplay between the levels (Ridgeway 1997; Ridgeway and Smith-Lovin 1999). At the macro level gender exists in the form of deep seated ideologies (e.g., natural biological differences are the source of psychological and behavioral differences between men and women – [Bem 1993]). These ideologies provide the foundation and justification for the organization of both our private lives and cultural practices along gender lines (Connell 1987; Sachs 1983) and they obscure the actual social processes and practices that sustain gender differences by making them appear “natural” (i.e., arising out of biology).

Gender can also exist at the individual level as an identity that helps us understand who we are in the social world and it is perhaps one of our most fundamental identities because it cuts across many others (Ridgeway and Smith-Lovin 1999; West and Zimmerman 1987). In other words many of our other identities take their meaning primarily through their interaction with gender. For example, individuals are not simply parents but instead are mothers and fathers. It

is the interaction of gender with parenthood that shapes the parenting identity and subsequent experience (Walzer 1998).

Symbolic interactionists, and specifically, identity theorists tell us that our identities are closely linked to our interactional behaviors in that our behaviors are generally intended to reflect our identities. For example, Burke (1991) argues that if we perceive a disjuncture between our identity and the feedback we are getting from others (reflected appraisals) we will subsequently act in ways intended to eliminate the disjuncture. If we are not able to eliminate the disjuncture we will experience distress and perhaps diminished well-being (Burke 1991).

In closely related ethnomethodological work, West and Zimmerman (1987) argue that we produce gender through everyday interaction. In other words, we “do gender”. By acting in accordance with macro-level gender ideologies in interactions with others we help sustain and reproduce those ideologies. We also help sustain our individual gender identities through such interactional behavior. So, for example, by fulfilling the normative childcare role, a woman (i.e., a mother) both reinforces larger societal norms (Berk 1985) and her own gendered identity; she reproduces gender. However, West and Zimmerman (1987) argue that we don’t always have to live up to normative gender dictates and it is by acting outside of those dictates that we create change in the gender system. But our failure to accomplish gender in normative ways will come at a price as others hold us accountable for it.

In the time since West and Zimmerman (1987) first introduced their theory of “doing gender” a significant number of studies have uncovered interactional behaviors through which we commonly produce gender. One of the primary ways we do so is through the use of strategic bodily displays (Herbert 1998). For example, we style our hair and fingernails in specifically feminine or masculine ways. We strategically wear feminine or masculine clothing. And we

both attempt to shape our bodies in ways considered to be feminine or masculine and to enhance or downplay specific bodily features depending on whether they are considered to be feminine or masculine.

Another primary means sociological research has uncovered for how we do gender is by carefully managing the division of labor. A number of studies have examined how the division of household labor along gender lines helps reproduce gender (Coltrane 2000). For example, Berk (1985) argues that doing household jobs that are considered to be sex-appropriate (i.e., cooking, cleaning, laundry etc. for women; mowing the lawn, vehicle maintenance etc. for men) helps reproduce gender. Through cleaning the house, women are producing both a clean house and femininity.

Other studies have examined how the division of labor in parenthood reproduces gender (McMahon 1995; Hays 1996; Walzer 1998; Dalton & Bielby 2000). As just one example, Walzer (1998) found that mothers and fathers possess cultural images of “good” mothers and “good” fathers that are intricately linked with the ideology of a split between maternal nurturance and availability to babies and paternal economic provision. As a result, men and women both approached parenthood in gendered ways, thus reproducing gendered images of motherhood and fatherhood and the gender system itself. Through their parenting as men and women, they were “doing gender.”

In a related strand, the division of labor with respect to paid employment has also been a method for the reproduction of gender. While women are expected to be housekeepers and nurturers, men are largely expected to be the breadwinners for their families. To the extent that they act in ways that meet these expectations, they are reproducing them and thus reproducing gender. However, even within paid employment, choosing sex-typed occupations such as truck

drivers and elementary school teachers (England 1992; Reskin and Padavic 2002) can help produce and sustain gender.

The ability to do gender through the division of household and paid labor is further bolstered by the physical separation of household and paid labor and of men and women within the labor force (Reskin & Padavic 2002). Such physical separation gives the impression of “his” and “hers” domains, thus reinforcing the ideology and appearance of “natural” gender difference.

Doing gender through bodily displays and through the division of labor, including the separation of work and home, are largely considered in sociology to be the primary means through which gender is produced and sustained. Applying this knowledge to what we know about the farm/ranch setting, however, suggests that some farm/ranch women may have difficulty producing gender or enacting gendered identities. For example, the physical separation of men’s and women’s domains that is central to maintaining the illusion of gender difference is often compromised in the farm setting where the farm workplace and the home are often in the same geographical location (Adams 1993; Kohl 1976). Not only are the farm and home located together, but they also lack mutual exclusivity in terms of functionality as farm work is often brought into the house and housework onto the farm.

In addition, women’s ability to enact gender may also be compromised by both the *way* and the *extent* to which they participate in farm/ranch tasks. Many studies have demonstrated that women can be involved in farming/ranching in different ways. Pearson (1979), for example, identifies four relationships women can have to agricultural production: independent agricultural producers, agricultural partners (i.e., equals), agricultural helpers (i.e., not equals), and homemakers. In another example, Haugen (1998) developed a three part typology of farm women’s roles: traditional (did lots of non-machinery work), professional (fully involved and

likely chose farming as an occupation), and farm managers (managers, not workers). Additional research has shown that the general roles women fulfill in their operations are closely related to their self-concepts (Bokemeier and Garkovich 1987; Brandth 2006; Haugen 1998) and to their task involvement in their operations (Bokemeier and Garkovich 1987). For example, one extreme is women who independently run their own farm operations. These women are the “farmer” on their operation, a label, and perhaps an identity, that is generally reserved for men (Sachs 1983).² They are also highly involved in male-typed work, oftentimes out of choice but also out of necessity (Brandth 2006). These women, it seems, might have the most difficulty aligning their farm/ranch roles with their gender identity, and may, in fact, have to carve out new identities that combine elements of the traditional masculine and feminine spheres (Adams 1991; Haugen 1998).

In contrast, women who fulfill primarily supportive roles in the farm/ranch operation can likely more easily incorporate their roles into a more traditional gender identity, as being supportive is a fundamental element of femininity. Two common examples of this type of involvement are women who are primarily involved in managing the bookwork and financial aspects of the operation and those who are primarily “gophers” (i.e., make special trips to gather supplies or information) (Garkovich et al. 1995).

In addition to the broader role that women play on the farm/ranch, their specific level of involvement in male-typed farm/ranch work may also affect their ability to enact gender.

Women’s participation in such male-typed work would seem to undermine the traditional

² In fact, studies have shown that many women, regardless of their involvement level, hesitate to apply the term “farmer” to themselves because they associate the term with men only (Bokemeier and Garkovich 1987; Sachs 1983).

division of labor, thus undermining the reproduction of gender difference and traditional femininity and masculinity. Research on women's involvement in farming/ranching suggests that while they are primarily responsible for household labor and childcare, they are also frequently involved in sex-atypical work as necessitated by the survival of the operation (Adams 1993; Bokemeier & Garkovich 1987; Garkovich, Bokemeier, & Foote 1995; Jones & Rosenfeld 1981; Kim & Zepeda 2004; Pearson 1979; Rosenfeld 1986; Sachs 1988, 1993; Scott 1996; Simpson, Wilson, & Young 1988).

Aside from undermining the traditional division of labor, women's participation in male-typed farm/ranch work may also curtail the production of gender by undermining their ability to use strategic bodily displays (Pearson 1979). The physicality of this type of farm work as well as the contact with dirt, grease, and manure that it often requires makes it impractical and even dangerous to enact typical bodily displays of femininity (Brandth 2006). For example, in farm work, boots are more practical and safe than pumps, long fingernails and hair can become a liability around moving equipment and parts, and good clothes are likely to be quickly ruined. Additionally, a degree of physical strength and musculature not commonly associated with femininity can be a real asset (Saugeres 2002; Silvasti 2003).

One factor that has been shown to help determine both what roles women play in their operation and how involved they are with specific farm/ranch tasks is the commodity produced on their operations (Bokemeier and Garkovich 1987; Simpson, Wilson, and Young 1988). For example, operations may be grouped into those that are livestock-intensive and those that are machinery-intensive. We might expect women to be more involved in livestock-intensive production because much of the work that has to be done to produce livestock is manual labor (i.e., more hands are needed). In comparison, we would expect women to be less involved

machinery intensive operations such as those that produce small grains because less of the work is manual and more can be done by one person running a large piece of machinery (Simpson et al. 1988). Previous research has supported these expectations in that women are more likely to be involved in livestock producing operations (Bokemeier and Garkovich 1987).

While women may be more likely to be involved in livestock operations, the type of work that is done may be more amenable to a feminine gender identity as it can oftentimes be framed as care work or nurturing (Adams 1993). In contrast, the work that women do in machinery-intensive operations is more difficult to frame as care work. Additionally, the mere association of the women with machinery can be problematic for gender production for women because machinery, especially large machinery, is generally associated with masculinity (Brandth 1995; Brandth 2006; Haugen 1998). Brandth (2006) reported that many of the women in her study were made uncomfortable by the projection of presumably male qualities of the machinery they operated onto themselves (e.g., the expectation that driving a big, heavy, hard machine means you are big, heavy and hard in human relations as well and the expectation of emotional toughness). Many of the women struggled because these projections did not fit their self images. Similarly, Haugen (1998) found that women who operated machinery were met with skepticism, both about the quality of their work and about the appropriateness of their participation in it.

Overall then, examining mainstream sociological work on gender side-by-side with rural sociological work on women in agriculture suggests that women in agriculture may have difficulty producing gender and that the extent to which they have such difficulty may be dependent on 1) the general roles they play in their operations, 2) how involved they are with specific farm/ranch tasks, 3) and what type of commodity the operation produces. Whether or not women truly have difficulty producing gender as the literature suggests, has not previously

been examined in the U.S. context. Additionally, previous research on farm women outside the U.S. has been limited to qualitative work and has not operationalized gender in a way that would allow the effects of women's involvement on their gender self-perceptions to be analyzed quantitatively. In this study the relationship between involvement and gender self-perceptions is analyzed both qualitatively and quantitatively. In particular, gender is measured on a femininity/masculinity scale that allows for the examination of the relationship between farm and ranch women's agricultural involvement and their perceptions of their own gender in a way that has not been possible with existing data.

METHODS AND ANALYTIC STRATEGY

The data for this paper comes from two sources. The first source of data is 55 semi-structured in-depth interviews with men and women from 14 wheat farm and 14 cattle ranch (non-dairy) families in Eastern Washington (7 of the families had some of both commodity, but were coded by their primary commodity). The choice to focus on these two commodity groups was a practical one made to reduce the complexity of all Washington agriculture, but also to represent the major types of agriculture: animal intensive and machinery intensive. The interviews were conducted from April to November 2006 at the homes of the men and women interviewed and they covered topics such as demographics, the respondents' paths into farming, the division of labor, off-farm employment, decision making, gender perceptions, the farm/ranch lifestyle, marital relationships, child rearing, and leisure activities. The men and women were interviewed separately in the order that best fit their schedule and, with only one exception, both the husband and wife in each family participated in the interviews. The interviews ranged in length from 53 minutes to 3 hours and 20 minutes with the average interview lasting one hour

and 28 minutes. All interviews were digitally recorded and later transcribed verbatim and coded into relevant themes.

Sampling for the interviews was done using a snowball method and resulted in a sample with a mean age of 50 years (range 28-78) and an average of 2.8 children. The respondents were relatively highly educated as all of them had at least a high school education and 84 percent of them had more than that. Thirty five percent had a four-year degree. The median farm/ranch size was 3,250 acres for the wheat operations and 6,000 acres and 300 head for the cattle operations (many of the cattle operations leased substantial amounts of range land for grazing). All in all people were quite willing to participate in the interviews. Only four families declined, one of which scheduled an interview but then had to withdraw from the project due to a family tragedy.

The second source of data is a survey mailed to 1,475 cattle (743) and wheat (732) operations in Washington State and returned completed by 491 women for a response rate of 33 percent. Twenty-one of the completes were deemed ineligible (e.g., recently sold the farm, but completed the survey anyway as if they were still farming), reducing the eligible completes to 470. The statewide sample was obtained using systematic random sampling (sorted by county) from the USDA/National Agricultural Statistics Service (NASS) list of farms and ranches in Washington State. Since the goal was to sample wheat and cattle family operations where the farm/ranch was central to the family's life, several stipulations were placed on the sampling frame and sample. To be included in the sampling frame, operations had to have at least \$1,000 of farm sales and be coded as primarily either a grain farm with positive wheat acreage or a cattle and calves operation with positive head of cattle but less than five head of milk cows.

Washington State University educational farms, Indian Reservations, Washington Department of Fish and Wildlife operations and cooperative agreements were excluded from the sampling

frame. Incorporated operations with ten or more stockholders and those in which the principal occupation was coded as other than farming/ranching were also eliminated from the sample in an additional effort to focus on primarily family farming operations.

The questionnaire was designed based on early interviews and on adaptations of the instruments of others who have surveyed women in agriculture. It was a 12 page, 8½ x 11 booklet style questionnaire containing 52 questions. In implementing the survey, a number of principles from the Tailored Design Method (Dillman 2007) were applied including blue ball-point pen hand signatures on all letters, a two dollar token incentive in the first mailing, the provision of self-addressed postage-paid return envelopes, and three mailings specifically timed for effectiveness. The data collection period ran from October 3, 2006 to December 31, 2006.

The average age of all respondents was 56 years but livestock-only producers were significantly older (58 yrs) than both grain-only producers and those who produced both commodities (54 yrs). Livestock-only producers were also significantly less educated than grain-only producers with more of them having a high school degree or less (27% vs. 18%) and fewer having a four year degree or more (24% vs. 39%). Despite their lower education, livestock producers were less likely to be in the lower income group and more likely to be in the middle income group than were both grain-only producers and those who produce both commodities. Respondents reported an average of 2.4 children and 35 years of their lives spent in farming/ranching with no significant difference across commodity for either of these variables. However, there was a significant difference in the mean number of years spent on the current farm/ranch between the livestock-only respondents (25 yrs) and the grain-only respondents (28 yrs). Across all respondents the average years spent on the current farm/ranch was 26.4.

The analyses that follow will proceed in four steps; the first three are based on the survey data and use Ordinary Least Squares Regression and the fourth is based on interview data. The first step looks at the association between the general roles that women fulfill (i.e., *how* they are involved) on their farms and ranches and their perceptions of their gender. The second looks at the relationship between women's involvement level in farm/ranch tasks and their gender. The third takes a more specific approach to involvement levels, examining how specific types of involvement are related to gender. Finally, the fourth step turns to the interview data and attempts to both contextualize some of the survey findings and extend them in ways that only such descriptive interview data can. Before proceeding to the first step of the analyses, I will first summarize the measures to be used from the survey data.

MEASURES

Gender Self-Perceptions and Gender Discrepancies

Survey respondents were provided with the scale seen in Figure 2.1 and asked to mark on the line where they thought they landed, where society's ideal woman would land, where their spouse/partner landed, and where society's ideal man would land. Where the women placed themselves on the scale represents how feminine/masculine they feel. A woman's *gender self-perception* is measured as the number of millimeters from the completely feminine endpoint of the scale to where she placed her mark. This variable can range from zero to 152 millimeters with higher values representing women feeling more masculine and lower values representing women feeling more feminine.

A second dependent variable which I will call "*gender discrepancies*" accounts for the difference (in millimeters) between where the woman placed herself on the scale and where she placed society's ideal woman. This variable can range from -152 to +152. In the gender

Figure 2.1: Gender Self-Perception Scale



discrepancy scale negative values represent women who felt more feminine than they thought society's ideal woman is and positive values represent those who felt more masculine than the ideal. The larger the absolute value of a woman's score, the larger the difference between their locations. Women with a score of zero in this scale felt they were the same as society's ideal woman in terms of femininity and masculinity.

The gender self-perception scale allows us to determine how farm/ranch roles and involvement are related to women's overall assessment of their gender. In comparison, the gender discrepancies variable allows us to examine how involvement is related to how the women see themselves as differing from what they think they ought to be by societal standards. In other words, the gender discrepancy scale captures an element of normative gender pressures.

Women's Farm/Ranch Roles and Involvement

Two questions in the survey were designed to measure how women are involved in their farms and ranches. The first asked them to indicate whether or not each of six descriptions described their role in the operation. The six roles and their descriptions were as follows:

- Independent agricultural producer – I manage the farm/ranch pretty much single handedly.
- Full agricultural partner – I share equally in all aspects of work and decision making.

- Business manager – I do bookkeeping, information gathering, and financial records.
- Agricultural helper – I participate in agricultural production mainly during busy times.
- Farm/ranch homemaker – I run errands and do traditional homemaking chores.
- Farm/ranch financial supporter – I provide support through off-farm employment.

These roles are not mutually exclusive and the women were allowed to indicate that multiple roles described them. The six roles are coded as six dichotomous variables indicating whether or not the women endorsed them.

The second measurement of women's involvement was a question asking if they regularly, occasionally, or never do each of 20 types of farm/ranch work (See Figure 2.2). A "does not apply" option was also provided for those from operations where a specific type of work was not done by anyone. Involvement levels for the first 18 of the 20 tasks are first averaged to form an overall involvement scale ranging from 0 to 3 ($\alpha = 0.88$). The last two tasks are left out of the scale because they are not explicitly farm/ranch tasks. In the second set of models below, gender self-perceptions and gender discrepancies are regressed on this 18-item involvement scale.³

The tasks are then grouped into four separate involvement scales based on task-type to explore the extent to which different types of tasks may differentially affect gender self-perceptions. A factor analysis indicated that 14 of the 20 tasks load heavily on four underlying

³ The involvement scale includes the don't know option so 0 means the job is not even done on my operation (i.e., don't know), 1 means it is done on my operation, but I don't do it, 2 means I occasionally do it, and 3 means I regularly do it. Calculating the scale in this way avoided the situation where a woman who is regularly involved in only one or two tasks would be scored similarly to a woman regularly involved in all of the tasks. Calculating the scale without the don't know option does not significantly alter the results.

Figure 2.2: Types of Farm/Ranch Work

Plowing, disking, planting, or harvesting	Branding, dehorning, or castrating cattle
Applying fertilizers, herbicides, or insecticides	Running farm/ranch errands
Driving large trucks	Fixing or maintaining equipment
Doing fieldwork without machinery	Making major equipment purchases
Caring for horses	Marketing products
Doing farm/ranch work with horses	Bookkeeping, records, finances, or taxes
Checking cattle	Supervising the farm/ranch work of others
Calving/pulling calves	Caring for garden or animals for family use
Feeding cattle	Caring for children or elderly family members
Vaccinating cattle	Working on another family/in-home business

factors (see Appendix C). Based on these results, four scales ranging from zero to three were formed by averaging women's involvement level across scale items. The first of these is a cattle scale made up of the following tasks: checking cattle; calving/pulling calves; feeding cattle; vaccinating cattle; branding, dehorning, or castrating cattle ($\alpha = 0.96$). The second scale reflects involvement with horses and contains two items, caring for horses and doing farm/ranch work with horses ($\alpha = 0.82$). The third, a fieldwork scale, contains the following four items: plowing, disking, planting, or harvesting; applying fertilizers, herbicides, or insecticides; driving large trucks; and doing fieldwork without machinery ($\alpha = 0.70$). The final scale reflects involvement in financial matters and contains three items: making major equipment purchases; marketing products; and bookkeeping, records, finances, or taxes ($\alpha = 0.69$). These scales become the independent variables in the third set of regression models below.

Control Variables

Control variables included in the regression equations are age, education, income, presence of children, and employment status. Age is measured by subtracting respondent's birth year from the interview year. Education is a variable consisting of 8 categories: 8th grade or less; 9-11th grade; high school or equivalent; some college (no degree); vocational or technical school graduate; associates degree (A.A.); college graduate (B.S., B.A); and post-graduate training.

Income represents total net family income from all sources before taxes and was measured using six categories that increased in increments of 20,000 dollars each (Less than \$19,999 - \$100,000 or more). The children variable is a dummy variable indicating whether or not the respondent had any children. Finally, employment status is measured by three dummy variables marking those who are currently employed in an occupation made up predominantly of women (>50% female), those employed in an occupation that is predominantly male in make-up (>50% male), and those for whom the sex composition of the job could not be ascertained. Those who are not employed off-farm form the omitted group. To create these employment variables the jobs that respondents reported in an open-ended question were first coded using the Standard Occupation Classification System. These codes were then used to determine the sex-composition of the job across the United States. Table 2.1 shows the study variables and their descriptive statistics by commodity.

FINDINGS

Farm/Ranch Roles

The results in Table 2.1 indicate that women from livestock operations are significantly more likely to consider themselves independent agricultural producers (18% vs. 5%) or full agricultural partners (50% vs. 20% for grain and 37% for both) than women from operations that produce grain or grain and livestock. Approximately 70 percent of respondents in all three commodity groups reported that they were business managers and at least 90 percent in each commodity group reported being a farm/ranch homemaker. Over half of the respondents in each group reported being an agricultural helper with women from operations producing both livestock and grains being slightly more likely to do so (not significant). Similarly, over half of respondents in each group reported being a farm/ranch financial supporter.

Table 2.1: Study Variables and Descriptive Statistics by Commodity

	Means (x) or Percents (%)			Significance Tests						
	Grain	Live-	Both	Grain vs.		Grain vs.		Livestock vs.		
	n=194	stock	n=66	Livestock	Both	Both	Both	test	p	
		n=197	n=66	test	p	test	p	test	p	
Dependent Variables										
Gender Self-Perception .x	41.3	45.7	53.0	-1.53	.126	-2.73	.007	-1.68	.094	
Gender Discrepancies....x	5.6	10.3	17.2	-1.50	.135	-2.43	.016	-1.46	.146	
Independent Variables										
Farm/Ranch Roles										
Independent ag.										
producer.....%	4.7	17.8	4.9	14.63	.000	0.01	.940	6.01	.014	
Full agricultural										
partner.....%	20.4	50.0	36.5	33.16	.000	6.48	.011	3.38	.066	
Business manager	67.8	72.3	69.2	0.89	.346	0.05	.827	0.22	.637	
Agricultural helper.....%	56.1	54.9	65.0	0.05	.829	1.46	.227	1.85	.173	
Farm/ranch										
homemaker	90.9	94.0	90.6	1.25	.263	0.00	.946	0.84	.360	
Farm/ranch financial										
supporter	61.5	53.6	51.7	2.27	.132	1.82	.177	0.06	.800	
Overall Involvement.....x	1.1	1.8	1.9	-11.06	.000	-9.86	.000	-1.32	.189	
Involvement Types										
Working with cattle ...x	--	2.0	2.0	--	--	--	--	0.27	.785	
Working with horses..x	0.7	1.2	1.4	-4.79	.000	-5.86	.000	-1.91	.058	
Fieldwork.....x	1.3	1.3	1.6	0.50	.615	-3.59	.000	-2.91	.004	
Financial Work	1.7	1.9	1.9	-2.99	.003	-2.14	.033	0.06	.954	
Control Variables										
Age.....x	54.4	57.6	53.9	-2.64	.009	0.35	.725	2.22	.028	
Education	5.3	4.8	5.2	2.93	.004	0.48	.634	-1.65	.100	
Income.....x	3.0	3.2	3.0	-0.95	.341	0.16	.870	0.87	.386	
Has Children.....%	92.3	85.8	93.9	4.19	.041	0.20	.652	3.07	.080	
Employment Status										
Majority female										
occupation.....%	41.8	28.9	34.9	7.03	.008	0.98	.323	0.82	.366	
Majority male										
occupation.....%	10.8	8.1	9.1	0.83	.361	0.16	.690	0.61	.806	
Unknown sex										
composition	4.1	5.1	3.0	0.20	.653	0.16	.690	0.48	.491	

Notes: x indicates that mean values are reported. % indicates that percent distributions are reported (i.e., dichotomous variables). Where mean values are reported, the significance tests are two-sided t-tests. Where percent distributions are reported, the significance tests are chi-squared tests.

Table 2.2 shows the results of four models in which women’s gender self-perceptions are regressed on these farm/ranch roles. For each of the farm roles, positive coefficients can be interpreted as the number of millimeters away from the feminine endpoint and toward masculine

endpoint that the women placed themselves if they endorsed the role compared to if they did not. Negative coefficients can be interpreted as the number of millimeters closer to the feminine endpoint that they placed themselves if they endorsed the role. The first two models include all respondents and they indicate that women who considered themselves to be Full Agricultural Partners or Agricultural Helpers felt significantly more masculine than women who did not endorse these roles. In both instances they moved their mark about half a centimeter toward the masculine end of the scale. In contrast, women who endorsed the role of Farm/Ranch homemaker reported themselves as significantly less masculine, moving their mark just shy of a centimeter and a half more toward the feminine end of the scale than those who did not consider themselves to be Farm/Ranch Homemakers.

The control variables (Model 2) indicate that women rated themselves as less masculine the older they were, the higher their family income (moderately significant), if they were currently employed in a predominantly female job, and if they had children (moderately significant). The controls also altered some of the relationships among the farm/ranch role variables and gender self-perceptions. Specifically, the control variables suppressed the effect of being a full agricultural partner so that it only approaches significance. They also reduce the magnitude of the effect of being an agricultural helper, although this variable remains significant when the control variables are present. The exact reason for this suppressor effect is unclear although additional analyses in which the controls are entered individually and in groups (not shown) suggest that the suppressor effect stems in large part from the combination of the income variable, the feminized job variable, and the children variable. It is possible that the suppressor effect is due to these variables picking up on differences across grain and livestock commodities.

Table 2.2: Effects of Farm/Ranch Roles on Gender Self-Perceptions

	Model 1	Model 2	Model 3	Model 4	Coefficient Difference Test
	<u>All</u>	<u>All</u>	<u>Grain</u>	<u>Livestock</u>	<u>F(1, 264)</u>
Independent Ag. Producer	3.40 (5.38)	4.48 (5.29)	-5.79 (13.06)	12.67* (6.41)	1.57
Full Agricultural Partner	7.06* (3.20)	5.55+ (3.19)	-7.69 (6.55)	8.24+ (4.61)	3.89**
Business Manager	0.54 (3.07)	0.73 (3.02)	0.14 (4.67)	1.11 (4.92)	0.02
Agricultural Helper	7.03* (2.89)	5.62* (2.85)	7.53+ (4.49)	3.58 (4.50)	0.39
Farm/Ranch Homemaker	-13.83** (4.61)	-14.36** (4.53)	-23.45** (8.01)	-9.04 (6.66)	1.89
Farm/Ranch Financial Supporter	0.22 (2.89)	2.83 (3.62)	-0.01 (5.79)	5.39 (5.31)	0.47
Age		-0.44*** (0.13)	-0.44* (0.22)	-0.24 (0.19)	0.50
Education		-0.39 (0.81)	0.85 (1.26)	-0.62 (1.32)	0.65
Income		-1.63+ (0.96)	-2.04 (1.53)	-2.57+ (1.47)	0.06
Majority Female Job		-8.43* (3.97)	-20.61*** (6.18)	0.51 (5.72)	6.25**
Majority Male Job		4.16 (5.15)	-6.86 (8.10)	14.55+ (7.87)	3.58+
Unknown Sex Ratio Job		-2.60 (9.47)	-13.04 (15.85)	4.04 (11.90)	0.73
Children		-9.02+ (5.02)	-5.51 (8.98)	-12.61+ (6.77)	0.39
Constant	50.67*** (5.10)	92.66*** (11.18)	100.68*** (19.42)	77.32*** (16.25)	0.84
Observations	346	346	140	152	
R-squared	0.06	0.13	0.19	0.16	

Standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%; ***significant at .1%

The last two models in the table show separate regression models for women from grain operations (Model 3) and women from livestock operations (Model 4). The intent of calculating these two models is to test for differences in effects across grain and livestock operations. The final column contains an F-test statistic for the difference between the coefficients. The differences were calculated by first running a pooled regression model and then administering a Wald test for each pair of coefficients⁴.

This analysis shows that the effect being a full agricultural partner has on gender self-perceptions differs for women depending on the commodity their operation produces. Full agricultural partners from grain operations placed their mark nearly four fifths of a centimeter closer to the feminine endpoint than their counterparts who did not endorse this role. In contrast, full agricultural partners from livestock operations placed their mark just over four fifths of a centimeter further from the feminine endpoint, indicating that they feel more masculine, than their counterparts.

The effects of two of the employment control variables also differed across commodities. Women from grain operations who were employed in feminized jobs reported feeling less masculine. Such employment did not have a significant effect on women from livestock operations. In contrast women from livestock operations reported feeling significantly more masculine if they were employed in non-feminized jobs. Employment in non-feminized jobs did not have significant effects on the gender self-perceptions of women from grain operations.

⁴ Including interaction terms may be a more conventional way to test for commodity differences, but doing so resulted in significant variance inflation (multicollinearity) so the pooled regression method was used instead.

Table 2.3: Effects of Farm/Ranch Roles on Gender Discrepancy

	Model 1	Model 2	Model 3	Model 4	Coefficient Difference Test
	All	All	Grain^a	Livestock	F(1,258)
Independent Ag. Producer	-0.18 (5.92)	1.82 (5.83)	-17.18 (15.71)	8.32 (6.85)	2.33
Full Agricultural Partner	8.75* (3.55)	7.18* (3.54)	-2.44 (7.87)	9.40+ (4.99)	1.67
Business Manager	-2.81 (3.40)	-2.53 (3.35)	-1.84 (5.67)	0.30 (5.27)	0.08
Agricultural Helper	8.27** (3.20)	7.16* (3.16)	7.72 (5.42)	5.95 (4.87)	0.06
Farm/Ranch Homemaker	-12.56* (5.07)	-12.58* (5.00)	-7.89 (9.65)	-13.72+ (7.10)	0.24
Farm/Ranch Financial Supporter	4.29 (3.21)	5.53 (4.04)	12.37+ (7.08)	4.78 (5.73)	0.70
Age		-0.55*** (0.14)	-0.40 (0.26)	-0.51* (0.20)	0.12
Education		-1.19 (0.90)	-1.10 (1.55)	-0.91 (1.42)	0.01
Income		-0.08 (1.07)	0.19 (1.86)	-0.96 (1.58)	0.23
Majority Female Job		-8.53+ (4.44)	-17.77* (7.56)	-2.53 (6.20)	2.46
Majority Male Job		7.83 (5.70)	-3.81 (9.81)	14.21+ (8.40)	1.96
Unknown Sex Ratio Job		2.79 (10.44)	-15.76 (19.12)	13.22 (12.71)	1.64
Children		0.77 (5.53)	6.71 (10.80)	-0.81 (7.21)	0.34
Constant	13.06* (5.63)	51.00*** (12.40)	32.57 (23.42)	47.11** (17.48)	0.25
Observations	340	340	138	148	
R-squared	0.06	0.12	0.11	0.17	

Standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%; ***significant at .1%

^a Full model not significant (F = 1.20, p = .288)

Table 2.3 shows the results of regressing *gender discrepancy* on the farm/ranch role variables. Again Model 1 contains the equation for all respondents without the control variables, Model 2 contains the full equation with control variables for all respondents and Models 3 and 4 contain the full equation but for grain-only and livestock-only respondents respectively. The final column contains the test of the grain-only and livestock-only coefficients. Since there are no significant differences in coefficients between the two commodities, discussion here will be limited to the first two columns.

The results indicate that women who reported being full agricultural partners and agricultural helpers reported larger gender discrepancies (in the direction of more masculine) than those who did not endorse these as descriptions of themselves. These women had an additional seven millimeters between where they placed their mark and where they thought society's ideal woman landed on the gender scale. Women who reported being farm/ranch homemakers, on the other hand, experienced less discrepancy than those who did not. Their marks were about 12.6 millimeters closer together. Each additional year of age is also associated with reduced discrepancy as is having a majority female job (although only moderately significant).

Women's Overall Involvement

Table 2.1 shows that on average, women from grain operations marked themselves 41 millimeters from the "completely feminine" endpoint of the scale depicted in Figure 2.1. Women from livestock operations marked themselves 46 millimeters from the feminine endpoint and women from grain/livestock operations marked themselves the furthest from the endpoint at 53 millimeters indicating that these two latter groups felt successively more masculine. The difference between the grain women and the livestock women is not significant ($t=-1.53$, $p =$

.126), but those producing both commodities do rate themselves significantly more masculine than those producing grain only ($t=-2.73$, $p = .007$) and the difference between them and livestock women approaches significance ($t=-1.68$, $p = .094$). Women from grain operations also reported the smallest gender discrepancy (5.6) followed by women from livestock operations (10.3), although the difference between them did not reach significance. Women from operations producing both grain and livestock reported the largest gender discrepancy (17.2)⁵. A parallel pattern occurred with respect to overall involvement levels as women from grain operations were the least involved (1.1) followed by women from livestock operations (1.8) and then women from operations producing both commodities (1.9). Thus, the patterns in the data appear to support the hypothesis that greater involvement (by commodity) challenges gender production making those who are more involved feel more masculine and widening the gap between their perceived gender and where they think society's ideal woman would be. However, multivariate analyses are needed to fully test this relationship.

The effects of women's overall involvement levels in farm/ranch tasks on *gender self-perceptions* can be seen in Table 2.4. Again, the Models 1 and 2 contain all respondents and Models 3 and 4 contain grain-only and livestock-only respondents respectively. The final column displays the F-test value for the difference between the grain and livestock coefficients. For the involvement variable the F-test is not significant indicating there is no statistically significant difference across commodity groups in the effects of overall involvement on gender

⁵ The difference in gender discrepancy by commodity is driven by how women rated themselves on the scale rather than how they rated society's ideal woman as there was no significant difference in the rating of society's ideal woman by commodity. On average, grain respondents marked the ideal woman at 35.9 mm, livestock respondents placed her at 36 mm, and those producing both commodities placed the ideal woman at 36.6 mm.

self-perceptions. As a result I will focus the discussion here on the full model containing all of the respondents (Model 2).

Table 2.4: Effects of Overall Farm/Ranch Involvement on Gender Self-Perceptions

	Model 1	Model 2	Model 3	Model 4	Coefficient Difference Test F(1, 273)
	<u>All</u>	<u>All</u>	<u>Grain</u>	<u>Livestock</u>	
Involvement	12.75*** (2.55)	11.12*** (2.56)	7.99 (5.42)	13.07** (4.32)	0.54
Age		-0.37** (0.13)	-0.44* (0.22)	-0.17 (0.18)	0.89
Education		-0.34 (0.80)	0.23 (1.26)	-0.71 (1.25)	0.28
Income		-1.49 (0.95)	-1.33 (1.53)	-2.41+ (1.45)	0.26
Feminized Job		-5.22 (3.20)	-17.06*** (4.92)	2.17 (4.86)	7.72**
Non-feminized Job		7.89 (4.82)	-1.60 (7.43)	16.56* (7.29)	3.04+
Unknown Sex Ratio Job		0.68 (9.01)	-10.88 (15.33)	9.49 (11.11)	1.15
Children		-8.55+ (4.98)	-3.43 (8.86)	-12.70+ (6.56)	0.70
Constant	25.15*** (4.20)	63.06*** (11.33)	69.31*** (19.54)	52.16** (16.85)	0.44
Observations	345	345	140	151	
R-squared	0.07	0.12	0.13	0.15	

Standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%; ***significant at .1%

The results indicate that as women become increasingly involved in their operations they perceive themselves as less feminine and more masculine. Women who were minimally involved in their operations (i.e., had an involvement score of one on the zero to three scale) placed their mark over a centimeter more toward the masculine endpoint than their counterparts

who were not involved at all. Those who were most involved (i.e., an involvement score of three) placed their mark 3.3 centimeters more toward masculine than those who were uninvolved and about 2.25 centimeters more toward masculine than the minimally involved.

The results for the control variables in these models very closely mirror those reported for the models in Table 2.2 with grain respondents in feminized jobs feeling significantly less masculine and livestock respondents in non-feminized jobs feeling significantly more masculine.

Table 2.5 shows the results of regressing gender discrepancy on overall involvement levels. The first finding to note is that there is no significant difference in the effects of any of the variables between grain and livestock respondents. Second, as involvement increases, so too does the amount of discrepancy between how the women view themselves and how they view society's ideal woman. Each additional level of involvement increases this discrepancy over a centimeter. This effect is not affected by the inclusion of the control variables, but these variables do reveal that each additional year of age reduces the discrepancy but women who work in majority male jobs report higher discrepancies than those who do not work off-farm.

Since the dependent variable here, gender discrepancy, has both positive and negative values, understanding what these effects really mean can be a bit confusing. To help interpret them, Figure 2.3 plots the effects of involvement on gender discrepancy holding all other variables at constant levels.

In each of the three lines on this graph, one of the significant variables from the full model in Table 2.5 is varied. The slope of the lines, which is the same in all three, represents the effects of involvement on gender discrepancy. The solid line shows this effect for a 30 year old who is not employed off the farm. This hypothetical woman always feels more masculine than she thinks society's ideal woman is, although at extremely low levels of involvement her ratings

Table 2.5 Effects of Overall Farm/Ranch Involvement on Gender Discrepancy

	Model 1	Model 2	Model 3	Model 4	Coefficient Difference Test
	<u>All</u>	<u>All</u>	<u>Grain^a</u>	<u>Livestock</u>	<u>F(1,267)</u>
Involvement	12.64*** (2.86)	11.41*** (2.89)	6.20 (6.48)	12.84** (4.82)	0.69
Age		-0.48*** (0.14)	-0.46+ (0.26)	-0.41* (0.20)	0.03
Education		-1.08 (0.89)	-1.40 (1.53)	-0.84 (1.34)	0.08
Income		0.12 (1.06)	0.83 (1.83)	-0.92 (1.56)	0.53
Feminized Job		-3.46 (3.59)	-8.27 (5.89)	-0.37 (5.34)	0.99
Non-feminized Job		12.46* (5.32)	4.92 (8.84)	16.31* (7.78)	0.94
Unknown Sex Ratio Job		8.93 (9.93)	-4.28 (18.20)	19.14 (11.86)	1.20
Children		1.13 (5.49)	9.52 (10.53)	-1.59 (7.00)	0.80
Constant	-10.20* (4.71)	21.96+ (12.68)	22.25 (23.24)	16.76 (18.72)	0.03
Observations	339	339	138	147	
R-squared	0.05	0.12	0.07	0.14	

Standard errors in parentheses

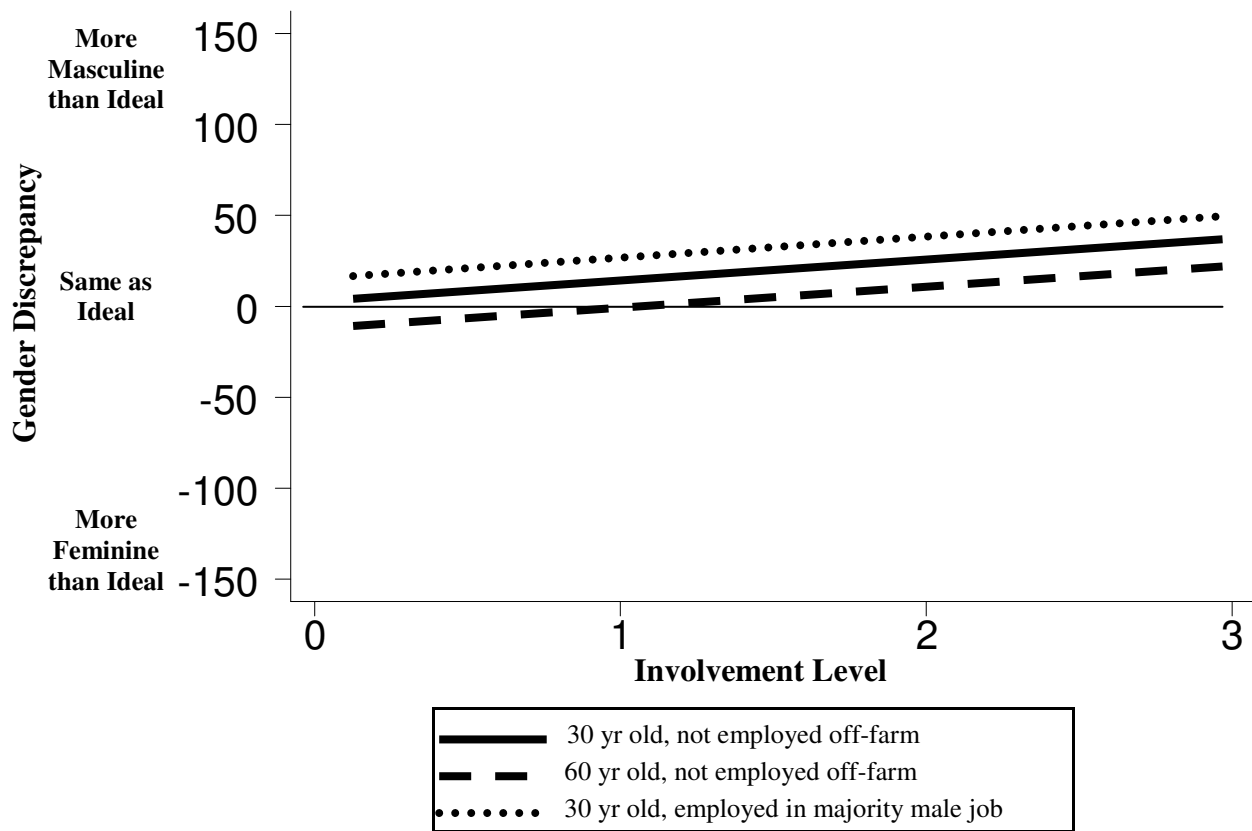
+ significant at 10%; * significant at 5%; ** significant at 1%; ***significant at .1%

^a Full model not significant (F = 1.15, p = .334)

come into close alignment and at higher levels of involvement she feels increasingly more masculine. The situation is quite different for the hypothetical 60 year old woman (again, not employed off the farm) represented by the dashed line. This woman's line crosses the zero point, meaning perceptions of self and the ideal woman are aligned, at an involvement level of 1.08. For any one item in the involvement scale, this value would mean essentially that the task is done on her operation, but she doesn't do it. For the entire scale (i.e., average of 18 items), it means that she is minimally involved. At any level of involvement less than 1.08 this woman feels

more feminine than society's ideal, but at levels of involvement over 1.08 she feels more masculine, and increasingly so the more she is involved. The final line on the graph, the dotted line, represents a 30 year old woman who is employed in a majority male job. The effect of being employed in such a job shifts the line upward such that at any level of involvement this woman will feel more masculine than what she thinks society's ideal woman is. As with the other hypothetical women, the amount that she feels more masculine increases with higher involvement levels.

Figure 2.3: The Effects of Overall Farm/Ranch Involvement on Gender Discrepancy



Women's Involvement by Task Type

The effects of women's involvement levels in different types of tasks on gender self-perceptions can be seen in Table 2.6. Since there are no significant differences across commodities for the task-type involvement variables, I will focus here on the models including all respondents.

These results indicate that some types of tasks have significant effects on gender self-perceptions while others do not. The more women are involved with horses and the more they are involved with financial aspects of their operations, the more masculine they feel. Women who are minimally involved with horses (i.e., a score of one) moved their mark just over half a centimeter closer to the masculine end while those who reported being highly involved with them (a score of three) placed their mark 1.7 centimeters closer to the masculine mark. The results are very similar for financial involvement with women who are minimally involved placing their mark half a centimeter closer to the masculine end of the scale and women who are highly involved placing their mark about 1.5 centimeters closer to the masculine end.

In the full models, women's gender self-perceptions did not vary significantly based on their involvement levels with livestock or with fieldwork. In analyses not shown, both involvement with livestock and fieldwork were associated with significant shifts toward masculine when the other involvement variables were not included in the models; however, including involvement with horses and financial aspects of the operation mediates these effects. For involvement with livestock this mediating effect is likely due to the fact that most, but not all, farm/ranch work done with horses these days involves moving or sorting cattle. Once again, the results among the control variables mirror those reported above.

Table 2.6: Effects of Farm/Ranch Involvement by Task Type on Gender Self-Perceptions

	Model 1	Model 2	Model 3	Model 4	Coefficient Difference Test
	<u>All</u>	<u>All</u>	<u>Grain</u>	<u>Livestock</u>	<u>F(1, 262)</u>
Livestock	0.24 (1.51)	-0.09 (1.51)	-0.73 (3.67)	-2.52 (3.74)	0.12
Horses	6.10*** (1.53)	5.62*** (1.54)	2.32 (2.85)	7.40*** (2.08)	2.09
Fieldwork	4.12 (2.59)	3.05 (2.65)	3.91 (5.52)	0.14 (3.59)	0.33
Financial	4.94* (2.40)	4.98* (2.37)	3.84 (3.64)	9.51* (3.80)	1.16
Age		-0.30* (0.13)	-0.37 (0.24)	-0.12 (0.18)	0.73
Education		-0.55 (0.81)	0.27 (1.29)	-0.97 (1.22)	0.49
Income		-1.41 (0.96)	-1.32 (1.56)	-2.68+ (1.44)	0.41
Majority Female Job		-5.38+ (3.21)	-17.21*** (5.01)	3.80 (4.88)	9.03**
Majority Male Job		7.54 (4.83)	-1.15 (7.58)	14.33* (7.23)	2.19
Unknown Sex Ratio Job		-0.41 (9.04)	-9.95 (15.66)	6.62 (10.92)	0.76
Children		-8.59+ (4.98)	-2.53 (9.04)	-12.86* (6.40)	0.88
Constant	23.73*** (4.52)	58.69*** (11.67)	60.89** (21.60)	52.75** (16.47)	0.09
Observations	339	339	138	148	
R-squared	0.11	0.15	0.14	0.23	

Standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%; ***significant at .1%

Table 2.7 shows the results of models in which women's gender discrepancy is regressed on the task-type involvement variables. Again, there are no significant differences by commodity in the last three columns of this table so discussion will be limited to the Models 1

and 2. These models reveal that increasing involvement with horses or in fieldwork increase the gender discrepancy the women report, but that involvement with livestock and financial aspects of the operations do not have significant effects on gender discrepancy.

Table 2.7: Effects of Farm/Ranch Involvement by Task Type on Gender Discrepancy

	Model 1	Model 2	Model 3	Model 4	Coefficient Difference Test
	<u>All</u>	<u>All</u>	<u>Grain^a</u>	<u>Livestock</u>	<u>F(1,257)</u>
Livestock	0.43 (1.68)	0.24 (1.68)	-4.82 (4.25)	-2.87 (4.45)	0.10
Horses	5.64*** (1.71)	5.06** (1.71)	7.51* (3.31)	4.50+ (2.36)	0.56
Fieldwork	8.55** (2.85)	8.99** (2.91)	7.00 (6.40)	6.68+ (3.97)	0.00
Financial	1.84 (2.65)	1.25 (2.61)	2.10 (4.23)	5.42 (4.28)	0.30
Age		-0.37* (0.15)	-0.24 (0.27)	-0.37+ (0.20)	0.14
Education		-1.44 (0.90)	-1.64 (1.52)	-1.05 (1.35)	0.09
Income		0.32 (1.06)	0.75 (1.82)	-1.27 (1.58)	0.71
Majority Female Job		-3.56 (3.55)	-8.80 (5.84)	0.83 (5.43)	1.46
Majority Male Job		13.16* (5.30)	4.96 (8.79)	17.13* (7.93)	1.06
Unknown Sex Ratio Job		10.35 (9.90)	-2.73 (18.13)	20.14+ (11.98)	1.14
Children		1.48 (5.46)	12.67 (10.47)	-1.77 (7.03)	1.35
Constant	-11.84* (5.02)	14.56 (12.82)	0.86 (25.01)	20.89 (18.19)	0.43
Observations	334	334	136	145	
R-squared	0.09	0.15	0.12	0.17	

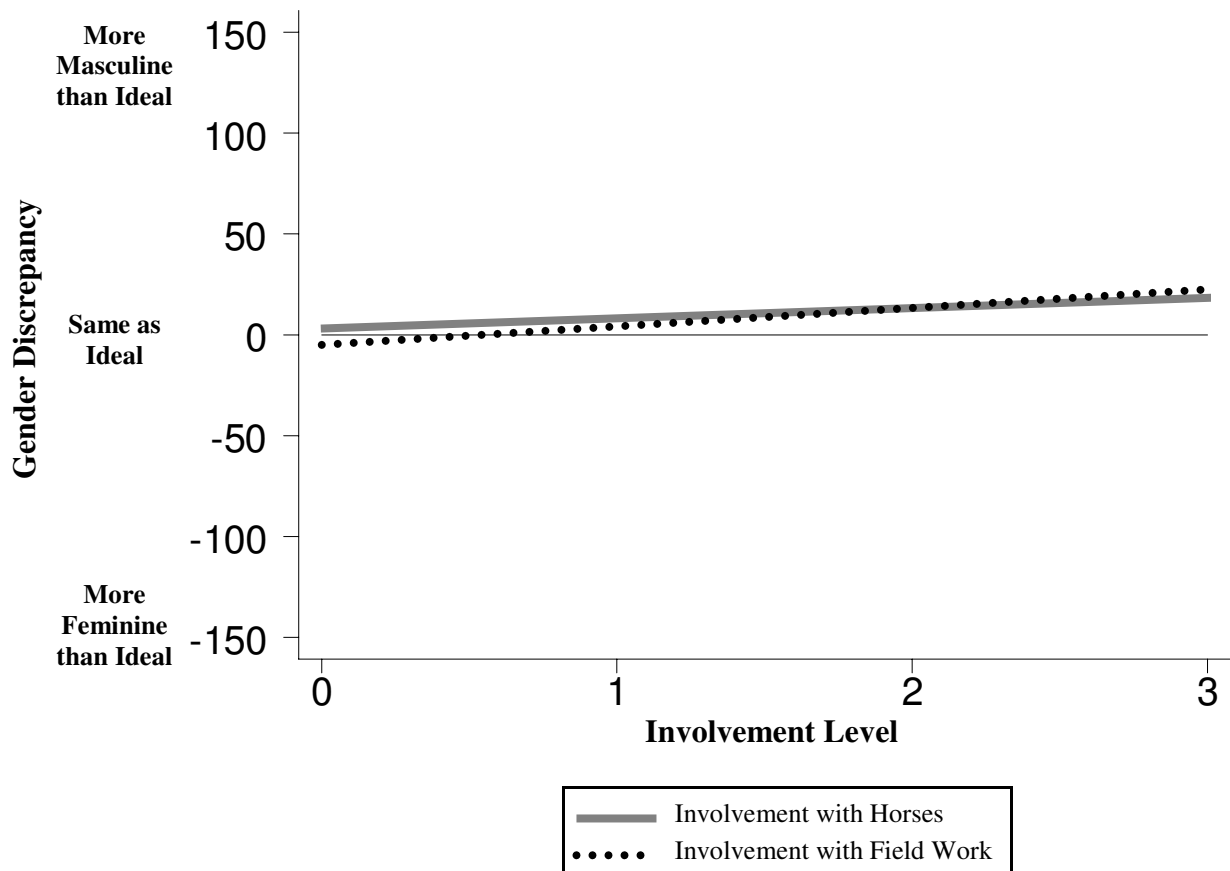
Standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%; ***significant at .1%

^a Full model not significant (F = 1.47, p = .151)

Figure 2.4 shows these effects visually. In this graph the solid grey line represents the effects of involvement with horses with other variables held constant and the dotted black line represents the effects of involvement in fieldwork with other variables held constant. These lines show that at higher levels of involvement gender discrepancies increase, but the effect is steeper for fieldwork than it is for working with horses. In both lines, age is set at its mean (55.87 yrs). Reducing the age would shift both lines upward and increasing it would shift them downward. Likewise, the lines for women with a majority male job off the farm would shift upward.

Figure 2.4: The Effects of Involvement with Horses and Fieldwork on Gender Discrepancy



Survey Results Summary

The survey results tell us several things about the relationship between women's involvement in their farming and ranching operations and how they view themselves with respect to their gender. First, somewhat contradictory to expectations, being an independent agricultural producer is not significantly related to gender self-perceptions or discrepancies. This is somewhat surprising in that this is the role most closely fitting the mold of the "farmer" which is generally associated with masculinity (Sachs 1983). It is possible that there is some social explanation for this lack of significance (i.e., a different definition of what it means to be feminine), but it is also possible that it is due to the small number of women who fulfill this role. Further testing is needed to determine what is really happening here.

The rest of the findings with regard to women's farm/ranch roles are as we might expect them. Roles that connect women, in terms of both identity and involvement, with farm work result in them feeling more masculine and at a greater distance from society's ideal women. Differences in the effect of being a full agricultural partner across grain and livestock operations, however, suggest that this role may be defined differently across these commodities. On the flip side, roles that can be classified as supportive either had no significant effect on the outcomes or, as in the case of the most female specific role – farm/ranch homemaker – made the women feel more feminine and more similar to the ideal woman. Overall then, it appears that the way in which women are involved in their operations does impact how they view themselves at the level of one of their most fundamental identities.

The results also indicate that the extent to which women are involved in actual farm/ranch tasks is significantly related to both involvement and gender discrepancy. The more involved they are, the more masculine the women feel and the more different they feel from what

they think society's ideal woman is. Perhaps the most striking finding with respect to involvement levels though is that among all of the women, it takes very little involvement in farm/ranch tasks to make them feel more masculine than they perceive society's ideal woman to be. The older the woman is, the more of a cushion she has before she begins to feel more masculine than the ideal, but even for an older woman, the involvement level at which she begins to feel more masculine is quite low.

The final set of analyses indicate that certain types of farm/ranch tasks are particularly strongly related to gender self-perceptions and discrepancies. In particular, higher involvement with horses and financial aspects of the farm/ranch are both linked to feeling more masculine. Involvement with horses and fieldwork are also associated with larger gender discrepancies. The bulk of the evidence suggests that it is the women's perceptions of themselves, not of society's ideal woman, that change with their involvement levels. The one exception is in the case of involvement with fieldwork. That this variable is not significantly related to perceptions, but is significantly related to discrepancies suggests that women who are more involved in fieldwork may rate society's ideal woman differently (i.e., more femininely) than those who are less involved in fieldwork. Indeed, additional analyses (not shown) supported this assertion. However, this was the only area through the entire analyses where such a discrepancy appeared which suggests that women's judgments of society's ideal woman's gender position was fairly consistent across involvement levels and instead it was their self ratings that vary with involvement.

While these analyses of the survey data are very informative about the relationship between involvement and how the women see themselves in terms of their gender, they also leave a number of questions unanswered. For example, the survey methodology did not allow

the women to provide their interpretation of what the gender scale means. As such, we don't know what the women thought of when they read "completely feminine" or "completely masculine" so we don't know how they were anchoring their responses. Another question left unanswered is whether or not the women consciously make the connection between their involvement and their views of themselves as feminine or masculine. Finally, the cross sectional nature of the survey data make it impossible to determine causality. It is possible that pre-existing gender self-perceptions drive involvement rather than involvement influencing how feminine or masculine the women perceive themselves to be. Each of these issues can be addressed by turning to the interview data.

Evidence from the Interviews

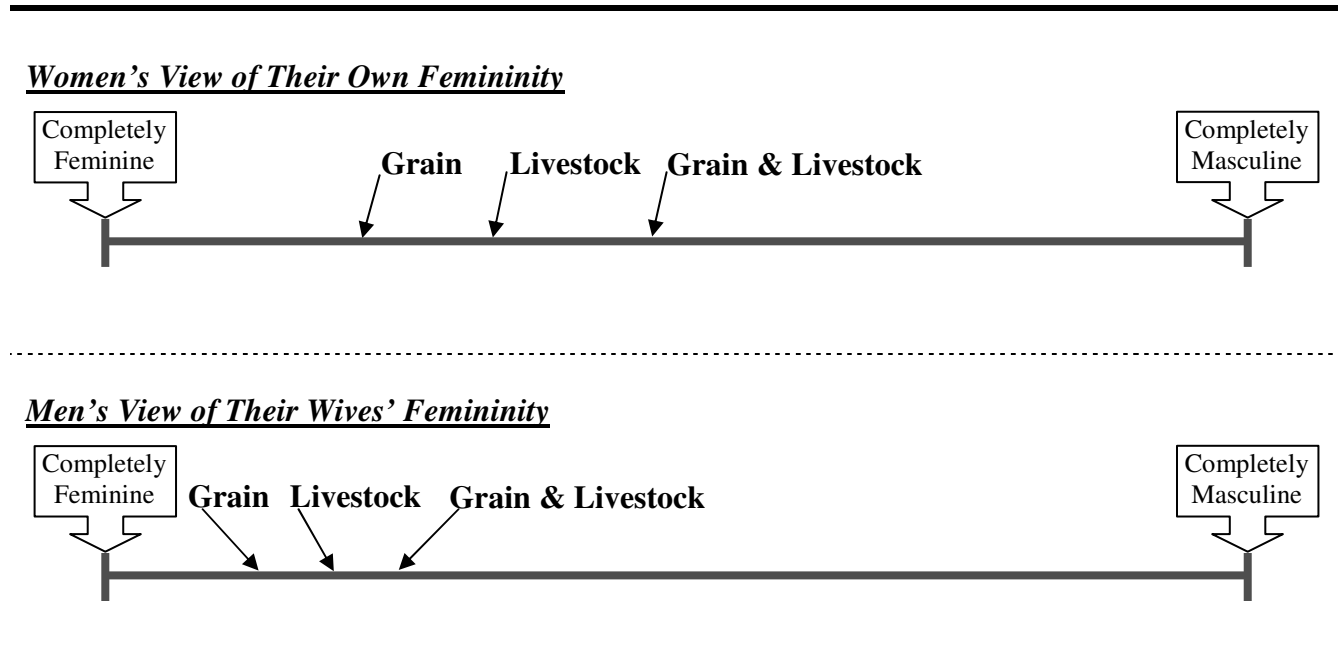
Interview respondents, both men and women, were presented with the same gender scale as the survey respondents and, like the survey respondents, were asked to place themselves, other family members, and society's ideal man and woman on the scale. In addition to these exercises, the interview respondents were also asked to reflect on what the labels "completely feminine" and "completely masculine" meant to them, how they and their spouses differed from these endpoints, and how they differed from others they put on the scale. This exercise provides interpretive information for the regression results reported above by showing how respondents typically defined the endpoints of the scale and by illustrating some of the reasons they placed themselves where they did on the scale.

Overall the women defined femininity in fairly typical ways, describing a "completely feminine" woman as what several respondents referred to as "the Barbie" version. For example, 81 percent of the women said that a completely feminine woman would have a kept up appearance such as always having her hair, makeup, and fingernails done, having an appropriate

body weight, and wearing nice clothing. About one in five of the women also mentioned being a caretaker, having social graces, and being squeamish or prissy as fundamental elements of being completely feminine.

Figure 2.5 shows where the women placed themselves and where their husbands placed them on the gender scale. These results mirror the survey findings in that women from grain operations were placed closest to the “completely feminine” endpoint (33mm) followed by women from livestock operations (51mm) and then women from operations producing both grain and livestock (73mm). Further, this pattern occurred in both the women’s judgments of their own femininity (top panel of Figure 2.5) and in their husbands’ judgments about the women’s femininity (20mm, 30mm, and 39 mm) (bottom panel of Figure 2.5).

Figure 2.5: Interview Respondents’ Gender Self-Perceptions



As Figure 2.5 shows, for the most part both the women themselves and their husbands moved the women away from the completely feminine endpoint. In fact, only one of the women placed herself right on the endpoint and only three of the men placed their wives there. The most common reasons cited by both the men and the women for moving their mark away from the feminine endpoint was being outdoorsy, physically active, and/or involved in farm work. Eighty five percent of the women and about half of the men cited these as reasons. Other reasons provided were that the women were sensible (2 women and 2 men) and that they were outspoken (e.g., “I would say that she has some traits that are just a little bit on the masculine order [like] laying down the law to someone that is being a wise ass or something like that.”) (5 men).

Interview conversations with Marge and Sally⁶ provide illustration of the relationship between gender self-perceptions and farm involvement. After marrying into her husband’s family’s cattle operation as a young adult, Marge, who is now 54 years old, became and stayed very involved in nearly all aspects of the ranch. She often rides horses, moves cows, feeds hay, fixes fence, and operates equipment. She is also responsible for the bulk of the record and bookkeeping for the operation as well as the majority of the household responsibilities and keeping a garden.

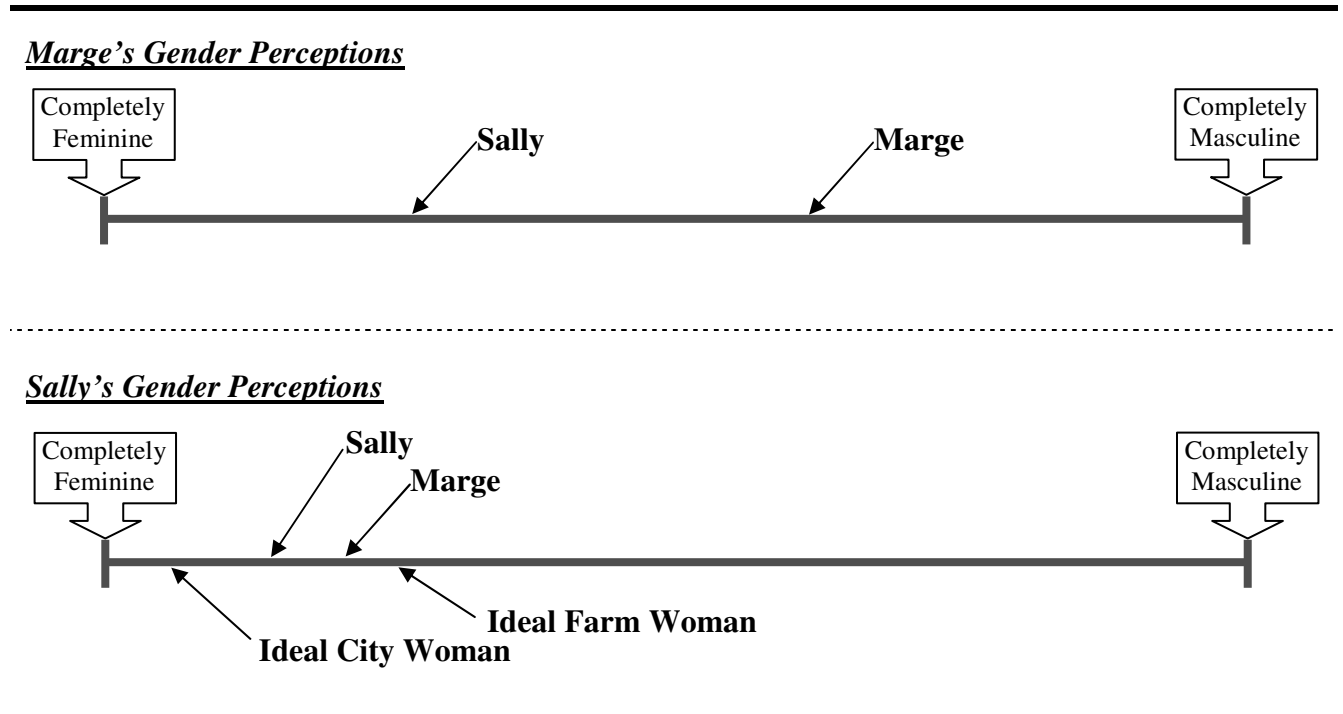
Marge and her husband raised two sons on their ranch and one of them, Jonathan, returned to the ranch seven years ago after college to run it in partnership with Marge and her husband. While away at college Jonathan met and married Sally who is now 30 years old. Sally and Jonathan have two young children of their own that they are now raising on the ranch. In the seven years that she has been on the ranch, Sally has remained relatively uninvolved. She felt that her role was watching the kids and keeping them occupied while everyone else did farm

⁶ To protect the identities of the interview participants pseudonyms are used in place of their actual names.

work. She explained that she could help a little bit if it was really needed, but that it was difficult working with two little kids.

Sally and Marge are unique among the interview respondents in that they are the only mother/daughter-in-law pair that was interviewed; however, the connections they draw in the excerpts that follow between farm work and gender self-perceptions were very common. Marge and Sally’s placement of themselves and each other on the gender scale can be seen in Figure 2.6.

Figure 2.6: Marge and Sally’s Gender Perceptions



Interviewer: What I would like you to do is mark somewhere on that scale where you think you land.

Marge: I feel like I would have to be, “I can’t get dirty; I can’t have a hair out of place.”

That’s what [completely feminine] means to me. Completely masculine would be,

you know, that end of the scale so I would say I was somewhere in the middle. But completely masculine, there's a lot of things I can't do that the guys can do. I can lift a lot more than you think and I do things, but not exactly what they would do. So I would put me right here...I'm kind of more maybe towards the masculine part.....

Interviewer: And where would you put your daughter-in law?

Marge: I would put her right here....She's not completely feminine. In my opinion, what I think completely feminine is, but she doesn't do all that I do.

Interviewer: So what I want you to do first is mark on there where you would put yourself.

Sally: Myself? I'm not half and half. I'm more, I would say, right here.

Interviewer: And where would you put the ideal woman?

Sally: The ideal woman. I don't know. I think, well I think the ideal farm woman would be more here and the ideal city woman would be here.

Interviewer: Okay what's the difference between the ideal city and the ideal farm woman?

Sally: Well, I think that the farm woman has to be tougher. They have to be more willing to get down and get dirty and get stuff done outside and work. They need to know how to do manual labor whereas the ideal city woman doesn't necessarily need to know how to....I mean...they can obviously do their yard and stuff like that, but they don't have to work cows in the dust and get their mouth full of dust and their hair and their ears and everything...When I picture a city woman I just picture them done up all the time. Generalized I should say.

Interviewer: And where would you put Marge on the scale?

Sally: Oh, she would definitely be more towards the farmer end.

Interviewer: Okay and why?

Sally: Why? I think she is concerned about what she looks like and stuff, but she would never spend money on nicer clothes or shoes...And just the fact that she's such a hard worker out there. I mean, if there's anybody that will get down and dirty, it's Marge.

Both Marge and Sally clearly decided where to place themselves and where to place each other based on how much they are each involved in the ranching operation. It is also noteworthy that Sally referred to the "completely masculine" endpoint as the "farmer end," thus equating the role of farmer with masculinity and further reinforcing the link between farm work and gender.

Some of the types of work that made women feel less feminine are illustrated by Jenny, a 40 year old cattle ranch woman. As Jenny placed her mark well over the midpoint of the scale toward the "completely masculine" endpoint she explained that this placement was because of the things she does that most women wouldn't do. When I asked her what types of things she was referring to, she explained:

Well, when we brand calves now we use the chute and I'm the one that pushes the calves individually down that chute line, which is, I mean, it's a lot of work. And when we had pigs, you know, I castrated all the pigs. And you should see eyebrows raise when I used to tell people. Matter of fact, I worked in town at that time at another place and worked with some guys and I mean they were intimidated because I knew how to castrate a pig [laugh]....Snip snip, it's not a big deal guys! Um, but yeah. And sometimes we'll put up

hay and I'll drive the loader and, you know, load the trucks and stuff so. And yeah, most of the gals I know don't. They wouldn't even dream of doing that so, so yeah, that's why I'd say that.

The interviews also illuminated two features of the relationship between involvement and gender self-perceptions that were not apparent in the survey data. The first is that farm/ranch work has an enduring effect on gender self-perceptions meaning that farm/ranch tasks that one undertook in the past, sometimes years in the past, still influence gender self-perceptions in the present. The second is that sex-atypical activities seem to have stronger effects on gender self-perceptions than sex-typical tasks.

Both of these points are illustrated by a conversation with Diane, the wife of a wheat farmer. Diane met and married her husband in college and they moved onto his parents' farm. She is now 46 years old and since coming to the farm her husband has taken over primary operation from his parents. Diane herself has stayed relatively uninvolved with the farm and instead she fulfilled the role of a stay at home mom while her children were young and has obtained off-farm secretarial employment in more recent years. When I asked her why she didn't place herself on the "completely feminine" endpoint of the scale she answered:

Because I think of some people right now that just really are more, don't want to get dirty. Something that comes to my mind is we used to butcher chickens and stuff. And it wasn't pleasant to me, but heck I could do that. I don't feel like a lot of folks I know wouldn't be caught dead cutting chickens' heads off. That kind of thing.

While Diane spent the vast majority of her time doing what we might consider to be typical feminine activities like housework, childcare, and working in a feminized occupation, the event that stood out in her mind when asked how feminine she feels was the farm task of butchering chickens, a task that she hadn't done for years. Diane was not alone in this respect. Although Jenny is currently quite involved in their operation, in the excerpt above she cited the act of castrating pigs as one reason she moved herself away from the feminine endpoint, but she and her husband had sold the pig portion of their operation years ago.

What is clear from these interviews and from the survey data is that women's farm/ranch involvement poses serious challenges to their ability to see themselves as feminine in a socially desirable way. The model of femininity that these farm women report having trouble achieving is what Connell (1987) terms "emphasized femininity." According to Connell, emphasized femininity is based on the ideas that compliance, nurturance, and empathy are womanly virtues. This model of femininity is expressed, according to Connell, as sexual receptivity (e.g., through bodily displays) and through motherhood. An excerpt from an interview with Lilly, who was one of the rare respondents who reported feeling very feminine, illustrates emphasized femininity. After being asked what "completely feminine" means to her, Lilly answered:

I want my nails done all the time. I'm always thinking of girl things....shopping things. And my shoes have to match my purse and my outfit everyday...that kind of stuff, you know. Sequins and sparkly things...For me it's not about sense, it's about fashion...I don't care if the shoes hurt my feet. They look good!

Incidentally, aside from preparing and delivering meals during harvest time, Lilly was almost entirely uninvolved in her family's wheat operation and she held a full-time clerical job off the farm.

That they were not able to attain emphasized femininity does not mean, however, that these farm/ranch women live somehow void of femininity. Rather, nearly half of the women interviewed offered up an alternative version of femininity that I will call "capable femininity." For example, Krystal, a 48 year old wheat farm woman, explained about herself and her daughter:

I think we have maybe a different vision of what feminine is because we live on a farm and because we've always been involved. You know when the kids were little they just hung out with [my husband] in the shop a lot of times...[My daughter] wore pink, but she was out there...So I think we have a little different perception maybe of what that means.

Capable femininity eschews the strong dependency implied by emphasized femininity, replacing it instead with an ideal of independence and capability; it values women's ability to act independently and their capability to do tasks we often don't think women can do. At the same time though it maintains the view of women as sensitive and as nurturers, thus differentiating it from masculinity. As such, the women are able to incorporate their farm/ranch work into their view of themselves as feminine women. This is illustrated by the following comments from Anita, a 42 year old cattle ranch woman:

I think the coolest woman looks good and gets dirty at the same time. She can read a cow and buck bales. I think that farm and ranch women are what women should be, not the Hollywood Barbie doll and what the magazines and movies make women out to be. Ranch and farm wives are the best there are in the world. (Anita)

The women who were able to articulate this different version of femininity drew a lot of strength and empowerment from it as illustrated by Sally's response to the question of what she thinks of living the farm lifestyle as a woman:

You feel like you've accomplished something most everyday. And I think it stretches what I feel like my bounds are. Cause a lot of times when I was little I was kind of weenie and I feel stronger and tougher being able to work out here and do things and lift things I never thought I would be able to lift, or fix things I never thought I would be able to fix. You know, there's times when I'm here all by myself and I HAVE to. I HAVE to fix it or I HAVE to do whatever it is when I never thought I would be able to. I think that, in that way I think it's lived up to. I don't know, that image of the strength of the farm wife, you know.

Finally, another comment from Sally illustrates how much the women valued, and even revered, women who were able to fully live up to the model of capable femininity, although they themselves may not have been willing or able to fulfill it so well:

[Marge] is amazing because she's an enormous worker on the farm. I told [my husband], "I'll never be Marge." I just am not interested in doing everything that she does. I mean she's the third man in their party. I mean, she does just as much as they do, I think, and she's pretty amazing.

Similarly, in an interview that took place after having attended a gathering of ranch families, Ruth, a 70 year old cattle ranch woman, commented:

I pointed out the one lady that lost her husband, and she still does a lot of the work. But she always worked with her husband. They had a very successful ranch, and I certainly take my hat off to her because she was just a, and she still is, a phenomenal person....She drives big trucks with the cattle and all of that and she drives the tractors and she does a lot of those things. I admire a person who can do that.

There is some evidence in the literature that such alternative versions of femininity have long existed among farm women and their families (Adams 1991). But Connell (1987) tells us that versions of femininity and masculinity exist in hierarchical relationships. Emphasized and capable femininity do not peacefully coexist. In fact, in many respects they are in direct competition with each other and emphasized femininity has emerged as the primary standard against which women are judged (and ultimately the standard to which they hold themselves when asked), even if they don't explicitly endorse it themselves. Thus while it appeared at numerous points in the interviews that many of the women were able to take strength and empowerment from being independent capable women, they also, as illustrated above, expressed

some distress or discomfort at other points about not being able to achieve emphasized femininity. This tension was particularly poignant in conversations with Krystal. Although she recognized that she and her daughter may have a different vision of what femininity is and she took great pride in how capable they are on the farm, she was also quite aware of how others perceived her:

I consider myself very, you know, completely feminine, but I'm not sure I'm perceived that way because if you see me in my coveralls and whatever. And I'm much more masculine in some of the things I do than a lot of women would consider....I mean it's not the norm for me to be out driving equipment or helping fix a combine or, you know, doing whatever I do.

This excerpt demonstrates what seemed to be the case with most of the women. Within their own farms/ranches and sometimes even within their close friendship circles with other farm/ranch families, capable femininity was respected and even revered. But when the women left their farms and ranches or when others came onto their operations, the standard of emphasized femininity ascended once again to the top and the farm/ranch women I interviewed found themselves challenged by the very involvement they take so much pride in.

At the same time though, there is some evidence that the ideal of capable femininity is not just a phenomenon among farm women; rather, it may be becoming somewhat of a standard society wide. Consider for example, the following conversation with Ethan, a 32 year old wheat farmer:

Interviewer: What do you think our society's pressure is for a woman right now to be?

Ethan: That's a good question. I would say society wants women to look like Barbie doll but ready to play for the Detroit Lions. Um, you better be 5 foot 10, 85 pounds, but be able to run a marathon, be able to play rugby. You know, it's weird, guys are, to me society puts guys in a spot. Society puts women, they're supposed to fulfill this broad spectrum, you know. They want super models that could play WNBA.

Interviewer: Okay. Do you see women struggle with that do you think?

Ethan: Oh of course they do. Oh yeah. I see guys struggle to a point, but I see women struggle with it all the time. Uh, I think society makes women change their hair every 3, 4 months. I think society makes women go buy new clothes all the time, uh, eating disorders, uh psychological disorders. Yeah. Worse thing, they need to burn magazines, not bras. Get rid of the magazines.

In his comments, Ethan removes the capable femininity model from the farm setting and shows how it may be being applied in other settings. What is also noteworthy about Ethan's points, however, is that when he talks about how women struggle with societal pressure he returns his focus to emphasized femininity, a shift that highlights the continued ascendance of this model of femininity despite the challenge that capable femininity seems to be waging.

CONCLUSION

The overarching goal of this paper was to examine how farm/ranch involvement is related to women's gender self-perceptions. In doing so, the paper bridges two literatures, the rural sociological literature that has looked in depth at women's involvement in farming and ranching but largely ignored the concept of gender itself (especially in the U.S. setting) and the

mainstream sociological gender literature that has focused on the production of gender but has largely ignored farm and ranch women. The answer to the question of how involvement affects gender self-perceptions is somewhat complex.

On the one hand, both the survey data and the interview data indicate that farm/ranch involvement poses significant challenges to femininity as it is commonly defined in society (i.e., emphasized femininity). Examining women's roles reveals that women from livestock operations who reported being full agricultural partners reported feeling less feminine as did all women who reported being agricultural helpers. Those who reported being farm/ranch homemakers, however, reported feeling more feminine. Moreover, both the analysis of women's task involvement and the interview data show a positive relationship between involvement levels and feeling more masculine. The interviews further reveal that more sex-atypical tasks have larger effects on gender self-perceptions and that the effects of farm/ranch involvement endure over long periods of time.

On the other hand the farm and ranch women offered up a competing model of femininity that may be gaining a foothold society wide and that is similar to views offered by women farmers in Norway (Brandth 1994). Capable femininity maintains the view of women as nurturers but also emphasizes their usefulness in other pursuits. It values women's ability and willingness to "get their hands dirty" with tasks that may be gender-atypical. The farm/ranch work that the women did fit very well into the model of capable femininity and many of the women expressed pride and took strength in fitting this model. Others admired those they knew who fit it well.

Although capable femininity provided the women in this study with a way to integrate their farm and ranch work into a positive view of themselves and of each other as women, in the

end the reality for all of them is that emphasized femininity is still the gold standard to which women are held. And when they were asked explicitly to define femininity it is the model they described.

Previous rural sociological research on women in farming/ranching has focused on how women are excluded from certain aspects of agriculture (e.g., operating large machinery) and relegated to others (i.e., housework and gardening) (Rosenfeld 1986; Sachs 1983; Silvasti 2003). Studies such as these that focus on how agricultural occupations are gendered shed some light on the division of labor between men and women, but their explanations are partial. The current study suggests a dimension to the explanation that has previously gone mostly unexplored; farm/ranch women may police their own farm/ranch involvement, in part to maintain their gendered identities and appearances. Women in similarly masculine-typed occupations likely walk a similar line between valuing their capabilities and emphasizing their “femininity.”

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CHAPTER 3

PRODUCING AND MAINTAINING FEMININITY IN THE FARM AND RANCH SETTING

As constructivist theories of gender have developed in mainstream sociology, two related strategies have emerged as fundamental to the production of gender in everyday life: maintaining appropriately feminine or masculine bodies (i.e., hair, makeup, clothing, etc.) and maintaining a gendered division of labor both in paid employment and house work (Berk 1985; Coltrane 2000). In certain situations, however, these strategies may not be available. For women, one setting in which these strategies may be challenged is on family farms. Here women often perform tasks considered to be sex-atypical (Rosenfeld 1986) and in which traditional feminine bodily displays are impractical (Silvasti 2003). In fact, previous research has shown that as women's involvement in farm and ranch tasks increases they perceive themselves to be more masculine (Smyth 2007).

The purpose of this paper is to uncover additional, perhaps more subtle, tactics women might use to produce gender by examining the practices and strategies farm and ranch women use to produce and maintain their femininity in light of the challenges that their farm/ranch involvement poses. In other words, it attempts to answer the question, how do women "do gender" when known strategies are partially or fully unavailable to them. The data used in the paper come from 55 interviews conducted in the summer and fall of 2006 with men and women from cattle and wheat farm families in Eastern Washington and from a 2006 random sample survey of women from Washington State livestock and grain operations.

BACKGROUND

Perhaps the most well known constructivist perspective on gender, and the one I draw on in this paper, is the “doing gender” perspective advanced by West and Zimmerman (1987). One of the major contributions of this perspective was to recast gender as an ongoing, routine social production rather than a set of static roles that women and men fulfill. According to the doing gender perspective, gender is constantly created and recreated within everyday interaction. In other words, it is not something that we inherently possess as men and women, nor is it automatically built into the roles we fulfill. Rather, we “do” gender in the process of undertaking daily tasks and interactions. Moreover, the extent to which we are judged to be competent members of society depends greatly on our success at doing gender.

Since gender is produced through social interaction, its production is not free from social influence. To accomplish gender, one must know pre-established standards of attitude and behavior for men or women. Thus, it is a “socially organized achievement” (West and Zimmerman 1987:129). But gender is not always achieved by living up to these standards. Failing to live up to standards of femininity or masculinity can also reproduce gender as it provides a site for gender assessment and accountability. In being held accountable for doing gender properly or poorly, one helps reinscribe proper femininity or masculinity. Thus a fundamental aspect of the interactional project of producing gender is holding ourselves and others accountable for its achievement.

A number of studies have taken the doing gender perspective as their framework and explored how gender is produced in interaction, or what strategies individuals use to do gender. A recurring theme in these studies is that gender is at least partially achieved through bodily displays (Herbert 1998; Sheppard 1989; Thorne 1993). One example that is particularly fitting

here is a study of women in the military, aptly titled *Camouflage Isn't Only for Combat*. In this study, Melissa Herbert (1998) finds that in trying to avoid being perceived as too masculine because of the work they do, 30 percent of female respondents reported consciously and strategically using bodily displays to appear more feminine. These bodily displays included wearing makeup, scents, long hair, earrings, pumps instead of flats, and skirt uniforms instead of pant uniforms. Some even reported breaking military dress regulations (e.g., skirt length among other things), at the risk of punishment, to display their femininity. However, too much emphasis on bodily displays of femininity resulted in many women being critiqued for prioritizing their appearance over their soldiering work. Farm women can be said to face many of the same challenges as military women in that they too walk a fine line between being judged as too masculine because of the work they do (which inhibits feminine bodily displays) or incompetent if they prioritize their appearance over their work.

Another recurring theme in the gender literature is how gender is produced through the division of labor. A number of studies of non-farm families have shown how doing or not doing paid labor, housework, and childcare are avenues for creating and maintaining gender. In *Gender Factory*, Berk (1985) argued that as people attempt to reconcile the demands of the work that needs to be done with normative gender dictates on a daily basis, work and gender become intricately linked such that in the process of establishing and maintaining a division of labor, individuals are also establishing and maintaining gender. While their gender helps determine their work, through the work that people do or don't do they also reproduce and uphold their gender. Thus, Berk argues that in cooking dinner and washing clothes women are producing both household products and gender. Further, the linkage of work to gender allows the division

of labor to appear natural and to be taken for granted, giving the perception of fairness despite evidence of significant inequality.

Bittman et al. (2003) found further evidence for the linkage between the division of labor and gender using the National Survey of Families and Households. They found that the more money women contribute to the family from outside employment the less housework they do and the more their husbands do. However, when women begin to contribute over half of the family income, men's housework contributions decline significantly. These findings suggest that the loss of the main provider role as a signifier of masculinity leads men to do gender by not doing housework. In another study using National Longitudinal Survey data, Artis and Pavalko (2003) found that women who had divorced or became widowed but who had at least one other person still living in their household significantly decreased their responsibility for household labor. The absence of a male spouse reduced the need for the women to maintain gender distinctions through housework, thus allowing them to reduce the amount of housework they do.

Other researchers have studied how gender is reproduced through the specific work of motherhood. McMahon (1995) focused on the reproduction of gender at the level of personal identity as well as at the interactional and macro levels. In particular, she argued that the experience of motherhood produced a gendered sense of self in women that was distinctly different from identities attributed to their partners. In pursuing what they perceive to be very private and personal life decisions, to become pregnant and carry the child to term, the women in her study were not simply expressing gender; they were reproducing it. Having children altered women's sense of self in ways that reaffirmed ideals of womanhood (and what manhood was not) for both themselves and others.

Using interview data from 38 mothers of two to four year old children as well as textual analysis of best-selling contemporary child-rearing manuals, Hays (1996) also articulates the argument that the gender system is reinscribed by mothering. In particular, she focuses on what she calls the ideology of “intensive mothering” or the combined ideas that the mother is the primary caregiver and that to be a good mother a woman must elevate the children’s needs above her own. The ideology of intensive mothering, Hays (1996) argues, binds women to childcare roles and in doing so re-inscribes distinctions between the home and the outside world and between women and men. Through their active utilization or rejection of the ideology, women are constantly defining and redefining what is appropriate mothering and thus either maintaining the gender system or challenging it.

While McMahon (1995) and Hays (1996) focus their work primarily on women and motherhood, Walzer (1998) focuses her research on both mothering and fathering. She argues that motherhood and fatherhood are constructed in relation to each other and that ignoring one leads to an incomplete picture of the other. To examine motherhood and fatherhood she interviewed 25 couples in upstate New York about their experiences of having a child together and found that mothers and fathers possess cultural images of “good” mothers and “good” fathers that are intricately linked with the ideology of a split between maternal nurturance and availability to babies and paternal economic provision. As a result, men and women both approached parenthood in gendered ways, thus reproducing gendered images of motherhood and fatherhood and the gender system itself. Through their parenting as men and women, they were “doing gender.” The gendering of parenthood was further reinforced by gendered structural characteristics of paid employment such as the wage gap and differential access to benefits

(England 1992; Reskin and Padavic 2002), which discouraged new parents from altering the traditional division of paid and childcare labor.

Taken all together, this research shows that the processes of dividing up and doing work among family members are also gender processes. They affirm for both ourselves and others that we are competent men and women. To a large degree, these gender processes depend on ideological and physical separation between the household and the workplace and now, since women are increasingly entering the labor force, gendered separations within the labor force (i.e., gender typed occupations such as truck drivers and elementary teachers) and within individual workplaces (i.e., male doctors, female nurses) (England 1992; Reskin and Padavic 2002). By relegating women and men to different types of work and different places in which to do their work, the appearance of “natural” gender difference is maintained (Coltrane 2000).

However, there are situations in which these strategies might be challenged yet gender is still produced quite successfully suggesting that there are as yet unidentified strategies that people use in addition to bodily displays and the division of labor. Examples might include occupations where men and women regularly perform sex-atypical tasks. The family farm in particular would seem to provide a great setting for studying gender production because on the farm, women are often involved in gender atypical tasks (Rosenfeld 1986; Smyth 2007) and oftentimes farm/ranch work is not compatible with feminine bodies (Brandth 2006) or bodily displays (Silvasti 2003). As one of my respondents put it, “they don’t make nice clothes for farm work.” The problem is bigger than the unavailability of nice clothing, however. Typical bodily displays such as long hair and fingernails or dangling jewelry can be dangerous around moving equipment and parts and clothing made to display femininity often lacks the durability and

protective qualities needed for physical farm work. Moreover, choosing practical rather than pretty shoes is a matter of safety and utility, not just taste or availability.

Herbert's (1998) military women faced a similar challenge in that their work sometimes conflicted with the strategy of using bodily displays to symbolize their femininity, although perhaps not to the same extent as on a farm because the military provides female uniforms. However, these women differed in that at the end of the day or the end of their duty period they left their work behind and went home or to social events where they could employ body display strategies, and many of them reported doing so, to manage their feminine image. One unique feature of farm families, however, is that their workplace is not separate from their home (Adams 1993; Kohl 1976). They are generally located in the same geographical location and ideologically are seen as part of the same operation so that even when farm family members go home, they don't leave the workplace. Further, farm men and women are always on call and their farm work and housework often blend together as when newborn calves are brought into the house to be warmed up in the winter and when meals are delivered to the fields during harvest time. This lack of separation has been documented by others (Kohl 1976; Sachs 1983) and it was echoed in the voices of many of the women who participated in the current project:

You live it. I mean, we never get away from it unless we go away for a week or something like that. Some people can walk out the office and walk away from their job, and he doesn't. He doesn't walk away from it. I don't walk away from what I do... You never really get out of it, get away from it. (Jessica, 43, Wheat)

You don't go to and from work – it's always there. (Survey Respondent)

We have livestock. They don't care if it's xmas [sic], softball game or fair...We live it – 24/7. (Survey Respondent)

You don't leave your life to go to work. This type of work is your life. (Survey Respondent)

The farm and its needs take president [sic] over everything....No farm family's life is separate from work. (Survey Respondent)

Even when we are both home together, since we live on the farm, my husband is still at his worksite and there are always jobs to do. (Survey Respondent)

As a result of some of these challenges, many farm women report feeling more masculine than they feel they should be and the more these women are involved in their farm operations, the more masculine they report feeling (Smyth 2007). Yet in spite of the challenges, gender, in this case femininity, is still successfully produced to some degree on family farms and ranches. The purpose of this paper is uncover some of the more subtle strategies women may use in addition to those already documented to produce femininity by exploring how, in light of the challenges posed by their occupation, farm and ranch women are able to produce femininity. In other words, how do farm and ranch women do gender when they also have to do farm work and when they cannot rely on the same separation between work and home that helps non-farm families maintain the appearance of gender difference?

METHODS

The analyses that follow proceed in two steps. In the first, a number of themes that arose in in-depth semi-structured interview data from cattle and wheat families in Washington State are presented using the respondents' comments as support where possible. Throughout this analysis the respondents' names are replaced with pseudonyms to protect their confidentiality. In the second step, a series of OLS regression models are estimated using data from a random sample of Washington State cattle and wheat farm women to examine whether the arguments made with the interview data are supported by data from the more generalizable survey.

Since Washington is a remarkably diverse state agriculturally, it was impractical, both economically and analytically, to include all types of agriculture in this study. As a result, the study was limited to one animal intensive commodity, cattle (non-dairy), and one machine intensive commodity, wheat, based on the expectation that differences in the production processes within these two broad commodity types might raise different challenges to farm women's gender-production (see Smyth 2007).

The interviews were conducted in the summer and fall of 2006 with men and women from 14 wheat farm and 14 cattle ranch operations in Eastern Washington. All in all, a total of 55 interviews were conducted in the homes of the families with men and women being interviewed separately and in the order that was most convenient for them. There was only one exception in which both parties were interviewed together due to their time constraints. The interviews covered such topics as demographics, pathways into farming, the division of labor, off-farm employment, decision making, gender perceptions, the farm/ranch lifestyle, marital relationships, child rearing, and leisure activities. A pre-set list of questions was used to guide the discussion, but a lot of flexibility and discretion was used in ordering the questions,

administering follow-up questions, and pursuing appropriate lines of inquiry. The interviews ranged in length from 53 minutes to 3 hours and 20 minutes (average 1:28). All interviews were digitally recorded and later transcribed verbatim and coded into relevant themes.

The interviewed couples were located through a snowball sampling method starting with a personal contact of the interviewer and a representative of the state Cattlemen's association. The people who were contacted to participate in the interview portion of the study were quite willing to participate with only four families declining (one of which agreed to participate but then had to cancel due to a personal family emergency). The sample ranged in age from 28 to 78 years old with a mean age of 50 years. The families had an average of 2.8 children and as a group they were relatively highly educated with all of them having at least a high school education and 84 percent of them having pursued education beyond high school (35% had a four year degree). The median farm/ranch size was 3,250 acres for the wheat operations and 6,000 acres (300 head of cattle) for the cattle operations. The large size of the cattle operations can be attributed to many of the families leasing substantial amounts of range land for grazing. Throughout this paper pseudonyms are used rather than real names to protect the confidentiality of the respondents.

The survey data used in the analyses was collected in the fall and winter of 2006 using a mail survey sent to a random sample of 1,475 cattle (743) and wheat (732) operations in Washington state. While the survey was sent to the farm operation, it was targeted to women and was returned by 491 of them (33% response rate). After data cleaning 470 of the completes were determined to be eligible for the study (21 were ineligible for reasons such as having sold the farm but completed the survey anyway as if they were still farming). The sample was obtained from the United States Department of Agriculture/National Agricultural Statistics

Service (through the Washington State field office) list of all farms and ranches in Washington using systematic random sampling (sorted by county). To be included in the sampling frame, operations had to have at least \$1,000 of farm sales and be coded as primarily either a grain farm with positive wheat acreage or a cattle and calves operation with positive head of cattle but less than five head of milk cows. Washington State University educational farms, Indian Reservations, Washington Department of Fish and Wildlife operations and cooperative agreements were excluded from the sampling frame. Incorporated operations with ten or more stockholders and those in which the principal occupation was coded as other than farming/ranching were also eliminated once the sample was drawn. These stipulations were established because the goal of the sampling was to access family farms and ranches where farming was central to family life.

The questionnaire was a 12 page, 8 ½ x 11 booklet style questionnaire containing 52 questions. Determination of what questions to include was based on early interviews and on adaptations of the instruments of others who have previously surveyed women in agriculture. The survey was implemented using a number of principles from the Tailored Design Method (Dillman 2007) including hand signatures, a two dollar token incentive in the first mailing, self-addressed postage-paid return envelopes, and three mailings specifically timed for effectiveness. Table 3.1 shows descriptive statistics for the survey respondents. The average age of respondents was 56 years, but livestock-only producers tend to be a little older (58 years) than the other groups. Over all groups, respondents reported an average of 2.4 children. Livestock-only producers were significantly less educated, with more of them having only a high school degree and fewer having a four year degree or more. However, despite their lower education levels, they were more likely to be in the middle rather than lower income group than grain-only

producers and those producing both commodities. Respondents reported spending 35 years of their lives in farming/ranching with livestock producers spending 25 of those years and grain-only producers spending 28 of them on their current operation. In the analyses and discussion that follows, I will provide the details about variables used where appropriate.

Table 3.1: Survey Respondent Descriptive Statistics

	Mean			Significance Tests					
	Grain (n=194)	Livestock (n=197)	Both (n=66)	Grain vs. Livestock		Grain vs. Both		Livestock vs. Both	
				t	p	t	p	t	p
Age	54.4	57.6	53.9	-2.64	.009	0.35	.725	2.22	.028
Number of Children	2.4	2.5	2.4	-0.78	.436	0.30	.764	0.77	.443
Years in Farming	34.5	33.6	35.2	0.48	.632	-0.28	.776	-0.57	.568
Years at Current Farm	27.8	24.8	26.9	2.01	.046	0.44	.663	-0.95	.345
	Percent			χ^2	p	χ^2	p	χ^2	p
Education									
High School or Less	17.8	26.5	19.7	4.27	.039	0.12	.731	1.24	.266
Some College/2 Yr Degree	42.9	49.5	45.5	1.67	.196	0.13	.722	0.32	.570
4 Yr Degree or More	39.3	24.0	34.9	10.47	.001	0.41	.523	2.98	.084
Income									
≤ \$39,999	47.0	38.0	54.8	2.86	.091	1.11	.291	5.36	.021
\$40,000 – \$79,999	33.1	41.9	25.8	2.82	.093	1.13	.288	5.07	.024
≥ \$80,000	19.9	20.1	19.4	0.00	.957	0.01	.929	0.02	.898
Married/Partnered	95.9	91.4	95.5	3.32	.069	0.02	.883	1.17	.279
Raised in Agriculture	43.2	45.1	47.0	0.15	.697	0.29	.591	0.07	.795

Notes: T-tests are two-sided.

FINDINGS

Although the farm/ranch challenges women’s ability to rely on their own appearance and the division of labor to do gender, the women in this study still sought those strategies out, perhaps to smaller degrees than their non-farm counterparts might. I start by discussing these strategies and some of the difficulties involved with them. I then turn to other strategies farm/ranch women use to do gender in light of the challenges that their occupation poses.

While I focus on the condition of women and their establishment of femininity throughout this work, it is important to remember that femininity and masculinity largely take their form and meaning in the context of one another; they are relational. This was the reason for interviewing both men and women. So where it is appropriate, to help illustrate the production of gender the voices of the men will also be brought into this text.

Bodily Displays and Leaving

One of the most salient elements of femininity for the farm/ranch women was appearance. For most of them it was the first thing they mentioned when I asked them to define femininity and almost all of them thought that keeping up their own appearance was important. Through the interviews with both the women and the men there was a general consensus on the fact that appearance was more important to the women than it was to the men.

Dorothy: He doesn't care about what he looks like. He doesn't care what people think of him.

Interviewer: And how about you in that respect?

Dorothy: Oh I want to present myself clean and stuff. When I'm farming, when you're out there for hours, that doesn't come into the issue, but when you go to town you want to look your best. I mean I wouldn't dress up, but I have clean clothes and try and comb my hair. (60, Cattle)

He tends to be a little bit more lax about dressing up for certain things because he doesn't think it's nearly as important. I've always had kind of the theory for the most part that better to be overdressed than underdressed....He'll go to certain meetings that I think he

should at least wear khaki pants and he wears his jeans and boots. (Krystal, 48, Wheat & Cattle)

[My wife] probably worries about it more than I do...I could be a bum...If I didn't go to town very often I'd be just tickled to death. But [my wife] always wants to look good when she goes to town. It's important for her to get her hair done in the morning and stuff. But if we're busy and I need her help she's not afraid to throw a pony tail in and run out the door. (Ryan, 41, Cattle)

It's real important to her and it's not so important to me [laugh]. She can't stand going to town with dirty clothes on and stuff like that. (Adam, 55, Wheat & Cattle)

In fact, a few of the women even viewed keeping up their appearance as an integral part of who they were.

I wear makeup....I always wear makeup....Makes me feel better about myself. I don't mind not wearing it, but I guess I feel frumpy....It's kind of like it just completes me I guess. (Betty, 46, Wheat)

Still others made a more direct connection between their appearance and femininity.

Interviewer: So what is it about dressing up that you enjoy so much?

Lilly: Makes you feel feminine! (37, Wheat)

However, an even more common theme than these was the struggle many of the women felt in maintaining a feminine appearance. Many of them told of feeling like they should dress more feminine, but for various reasons did not. For example, Emma, a 54 year old from an operation that produced both wheat and cattle explained:

I can be very feminine when I want to get dressed up and fix my hair and put makeup on and look gorgeous, but yet that's not what I want. I'm not into looking like that all the time. I should be more, and I usually am. Like if I go somewhere, I always comb my hair out and makeup on, but [not] around here anymore. I used to put my makeup on every morning and do my hair, and I don't do that anymore. But I can be if I have to be. Like I don't have my nails on. Usually I wear acrylic nails because I've got big ugly man hands.....I should not be a slob, but sometimes I like to be a slob.

Emma's words show how appearance can be strategically used to do gender (e.g., "I can be very feminine when I want to get dressed up...") and even how elements of appearance can be used by women to undo or cover up masculine traits (e.g., "Usually I wear acrylic nails because I've got big ugly man hands."). They also show, however, a real struggle between what Emma does in her daily life and what she feels like she *ought* to be doing.

This struggle with feminine appearances was not uncommon among the women. In most cases it traced back to working on the farm. For example, Julia, a 52 year old cattle ranch woman, juxtaposed her situation to that of a friend from the Seattle area by telling about their visits to one another's houses.

The first time I saw her I was, “you cannot wear those shoes here!” She forgot to get tennis shoes. I mean she was wearing heels. I mean she’s city. And when I go over there she helps put me together and when she comes here she doesn’t complain. But I couldn’t live her life...I can’t even keep my nails done when I’m doing sprinklers.

Julia’s story about her friend tells us two things. First, certain elements of feminine appearance, in this case high heel shoes and manicured fingernails, are not conducive to ranch life or ranch work. Second, it is when she goes to the city and can enact femininity using these strategies that she is “put together,” a terminology that implies that she is somehow un-whole with her less feminine appearance at the ranch. This terminology echoes Betty’s comment that wearing makeup “completes” her.

As another example that highlights the conflict between the practical demands of farm work and the desire to dress femininely, consider the following conversation with Anne, a 67 year old from a cattle ranch:

Interviewer: What types of activities make you feel feminine?

Anne: Oh, things like going to a play with my friend, and maybe going out to someplace nice.

Interviewer: What is it about those two things do you think that make you...

Anne: That make me feel more feminine?

Interviewer: Yeah.

Anne: Because I’m not grunging around in a corral [Laugh]. Cleaning up and utilizing some social graces.... And probably because we haven’t done a lot of those kinds of things,

sometimes if it's a highly socialized thing I might feel a little uncomfortable anymore just because I'm out of tune with some of the graces. You see what I'm saying? You get in a routine of working around the ranch and doing that kind of stuff I think sometimes. But you know Cattlemen, Cattlewomen conventions and stuff like that, I find that as an opportunity to feel more feminine because I'm not wearing jeans or shorts or something like that and I can dress up and socialize more.

Since being on the farm/ranch inhibited feminine bodily displays by making them impractical, many of the women took pleasure in leaving the farm/ranch and going places that were more conducive to gender production. Fully three quarters of the women reported at least somewhat regularly leaving without their spouse for extended days or overnight outings where they were most often accompanied by female friends or relatives (mothers and sisters). In contrast, nearly 60 percent of the women reported that their husbands never or rarely left the farm/ranch for such outings.

Whereas farming and ranching allowed the men to express their masculinity, leaving allowed the women to enact bodily displays of femininity and to socialize with other women in ways that were not possible on the farm/ranch. This strategy was captured best by Sally who, when asked how she felt about being a woman on the farm answered, "I like it. I think that I can be a girly girl when I want to be and go leave, and I can be a more masculine woman here too."

One of the most common reasons the women gave for leaving was for recreation and socializing. For example, Anne explained,

Occasionally I'll go up to see my mother who is 93 and living on their farm...I have one day of the week that I golf. I golf every Tuesday with the local ladies....and this coming weekend my little homemaker's group and I are going to go to Lopez Island for two days.

When asked if there are times when her husband leaves, Anne answered, "No, he never goes anywhere." Sandy, a 53 year old from a cattle operation, had a similar experience in that her husband also rarely left the ranch, but she made it a point to get away. She explained:

When the kids were little, I used to take them and go and [my husband] would not. We used to go to the beach every summer with my mom and my sister. And he could kind of justify that it was okay to do that and he wasn't expected to go because it was just the girls...You know, we weren't leaving him out. We'd love for him to come, but he didn't. So there were a lot of things that we did without him in those years...We'd go and he'd stay home and work....And the other thing too, if I want to spend time with him, I have to go with him. I have to do his work. I wish we had something that we did together that wasn't work related and we don't....[My husband's] hobby is the ranch so a perfect day for him is for me to go with him. And if I want to spend time with him I have to go.

For other women, off-farm employment provided a regular opportunity to leave the farm/ranch. Just over 54 percent of the women held off-farm jobs. For many of the families these jobs were a necessity because they provided additional income as well as benefits that are difficult for farm/ranch families to obtain such as health and dental insurance. But most of the "working" women were quick to point out other benefits of working off the farm/ranch as well.

I like the people I work with... We're more like just a bunch of friends that come to work every day. And that part I would miss. I like interaction with people and I don't think staying home would give me that. (Sandy, 53, Cattle)

It's been fun for me to go to work. I get to dress up. You know, when I'm out here, I love it out here, but I don't really have a reason to dress up. And the other thing is I'm interacting with people. (Betty, 46, Wheat)

When I go to work it's kind of fun to wear nice clothes and get cleaned up, or get dressed up a little bit....It's just nice. I'm glad that I have that kind of [job]. I have a couple of friends who are gardeners. I love gardening here, but I just kind of like being able to just sit in my outfits where it's nice and cool and visit with people. (Diane, 46, Wheat)

As these excerpts demonstrate, leaving was very important for the women as it provided them with an opportunity to express their femininity. Leaving was not as important, however, for the men and, in fact, the wife's need to leave and the husband's desire to stay on the farm/ranch caused some tension for some of the couples. For example:

It's hard for him to sometimes understand that I need time away with my friends....He doesn't enjoy that kind of stuff. He's more of a home body. (Lilly, 37, Wheat)

Money has always been a thing with him. Like, "That's gonna cost too much." or...you know, "gotta pay those bills so you can go run around." (Emma, 54, Wheat & Cattle)

Such misunderstandings went the other way as well. A number of the women spoke of trying to get their husbands to take up a non-farming/ranching hobby or go out and socialize. In most instances, these efforts were met with apathy. For example, Dorothy, a 60 year old cattle ranch woman was determined to get her husband, George, a hobby:

We got to see if we can't find him a hobby. He doesn't have a hobby and it drives me nuts.... He needs something to think about instead of putting so much thought into the place. I mean he thinks about the place all the time....There's a friend of mine, her son teaches photography and I think he does it the spring quarter. And I think I'll sign us both up. I've got to do something....give him more to think about instead of just the place.

George, on the other hand, was not as concerned with getting a hobby. When asked what Dorothy would want him to do to be the best husband he could be, he answered, "Get a hobby. That's what she thinks I should do is get a hobby....The farm's a job and a hobby and everything else." (58, Cattle)

Others talked about trying, unsuccessfully, to get their husbands to go out and socialize with other guys.

He hasn't really gone...And I would totally encourage him to do it if he wanted to. It's just, it hasn't happened that much....And sometimes we've pushed the guys and said you guys ought to go do this. He was thinking about taking [our son] and a couple of his friends and their dads up to the lake...And I know he would just have a blast, but I think

sometimes it's just doing it and making the arrangements. I don't know. (Charlotte, 42, Wheat)

For other women, however, the strategy of leaving was either less of an option or was not an option at all because of their rural, and oftentimes very isolated, locations. These women emphasized that they just don't have the occasion to dress up because the nearest towns were either too far away or too small to offer many "dress-up" venues.

I just don't go that many places that are dress up...I guess if I was in the city things might be different, but I'm out here. (Ruth, 70, Cattle)

One thing about living out here, there's not a lot of places you can wear a lot of clothes...But I like to have some and I do like to go places when you get to dress up. (Sydney, 49, Wheat)

I would like to dress up more but I have no reason. I mean I go to ball games and I go to the grocery store and that's about it. (Erin, 50, Wheat)

The lack of opportunity to dress up meant for some of the women that they didn't feel comfortable or competent to do so when an occasion did occur. As a result, a handful of them sought the help of friends and relatives for fashion advice as relayed by Marge, a 54 year old woman from a cattle operation:

I have a heck of a time with clothes. I like to look nice, but I don't like to shop. If it's not jeans and a t-shirt, what am I gonna wear? So my sister who lives in [a nearby town] is really good. I'll say, "I got this thing I gotta go to. Can you help me find something?" She's my fashion consultant.

Taken all together, the interviews indicated that having and maintaining a feminine appearance was important to the women. This meant being cleaned and well groomed as well as wearing nice clothing. The men, however, as a group were considerably less concerned with their own cleanliness and with wearing nice clothing. By taking these attitudes and behaving accordingly, both the women and men were able to use their appearance to symbolize their gender (and their allegedly natural difference). In other words, as previous research has shown, appearance is a significant tool in gender production (Herbert 1998).

Despite the importance the women put on appearance, many of them found feminine bodily displays were not practical in the farm setting and therefore had trouble achieving them. As a result, some of them (e.g., see the excerpt from Dorothy at the beginning of this section), had to adjust their expectations so that appearance only mattered outside the farm setting. Others actively sought off-farm experiences to give them the opportunity to dress up and be feminine. However, a significant portion of the women reported that they did not have many occasions outside the farm setting to dress up and put on makeup because they live too far from towns large enough to offer those opportunities. As a result, while appearance is a tool for the production of gender, it is not always a reliable tool for farm and ranch women. They had to employ other methods as well.

The (Re-framed) Division of Labor

Just as maintaining a feminine appearance was difficult for the farm/ranch women, so too was maintaining an “appropriately” gendered division of labor. However, as has been found in other studies (Bush 1982; Garkovich, Bokemeier, and Foote 1995; Kohl 1976; Scott 1996), any crossing-over into gender atypical tasks that occurred was largely done by women. The men rarely did household work. For example, in 25 of the 28 (89%) families interviewed the women were primarily responsible for household and childcare tasks and received only minimal assistance from their spouses in those domains. In addition to these tasks, and consistent with previous studies on the family division of labor (Rosenthal 1985), the farm/ranch women also largely served the role of social organizer in maintaining kinship and friendship networks for the family. In this role they were responsible for organizing and coordinating activities and interactions with extended family and friends.

I'm also the social secretary, you know, making sure the birthday gifts get out to relatives and cards and you know a lot of those things....I take care of the family stuff. I mean it's like Thanksgiving dinner...We're just gonna do a smaller Thanksgiving this year, but we've been making the arrangements, my mother-in-law and I. And that seems kind of trivial but trying to keep track of all that family stuff and keeping the connections on some of that, it takes time. (Krystal, 48, Wheat & Cattle)

In addition to their responsibility for household and family upkeep, in 17 of the 28 families the women contributed significantly to the farm/ranch work that took place.

The same pattern in the division of labor was found among the surveyed women. Table 3.2 shows that the great majority of the women reported that they have primary responsibility in their family for grocery shopping, cooking, dishes, laundry, cleaning, and clothing shopping. At the same time, less than one percent of the survey respondents reported not being involved in any of 20 types of work done on their farms/ranches (See Figure 3.1). On average the surveyed women reported at least occasionally doing 12 of the 20 (61%) tasks (Smyth 2007).

Table 3.2: Percentage Distributions of Primary Responsibility for Major Household Tasks

<u>Household Task</u>	<u>Primary Responsibility for Task Belongs to...</u>			
	<u>Female Respondent</u>	<u>Male Spouse/Partner</u>	<u>Both Equally</u>	<u>Other</u>
Grocery Shopping	81.1	3.9	14.8	0.2
Cooking	82.4	5.2	12.0	0.4
Dishes	76.6	4.1	17.8	1.5
Laundry	87.0	2.4	9.8	0.9
Taking out Garbage	40.7	31.3	23.5	4.6
Cleaning	86.1	2.2	10.7	1.1
Clothing Shopping	84.4	2.4	12.8	0.4
Caring for the Yard	47.2	17.0	33.6	2.2

Notes: Due to rounding, rows may not sum to 100%.

Figure 3.1: Types of Farm/Ranch Work

Plowing, disking, planting or harvesting	Branding, dehorning, or castrating cattle
Applying fertilizers, herbicides, or insecticides	Running farm/ranch errands
Driving large trucks	Fixing or maintaining equipment
Doing fieldwork without machinery	Making major equipment purchases
Caring for horses	Marketing products
Doing farm/ranch work with horses	Bookkeeping, records, finances, or taxes
Checking cattle	Supervising the farm/ranch work of others
Calving/pulling calves	Caring for garden or animals for family use
Feeding cattle	Caring for children or elderly family members
Vaccinating cattle	Working on another family/in-home business

With respect to what is typically considered to be “women’s work” the families were largely able to maintain a traditional division of labor. However, women regularly crossed traditional gender boundaries by participating in farm work, thus undermining the traditional division of labor. Since many families could not maintain a traditionally gendered division of labor and since they could not easily compartmentalize work and home (i.e., leave the gender-atypical activities at the workplace at the end of the day and go home), they tended to reframe or recast their actual farm/ranch work into traditional gender terms. In this way, they could artificially create the appearance of a properly gendered division of labor.

One of the most common methods of doing this was to avoid referring to the women’s activities as “farming” or “ranching” and to instead refer to them as “helping” their spouse/partner (i.e., the real farmer/rancher, man). This tendency has been found in previous research (Bokemeier and Garkovich 1987; Fink 1986, 1988; Jellison 1993; Sachs 1983) and was ubiquitous throughout the interviews for this research. For example, in her family’s farm, Dorothy (60, Cattle) did more than half of the work, including operating and fixing large equipment and implements, but when asked to sum up her role she answered, “I just help as much as I can.” Similarly, Sydney, who was only minimally involved in her family’s wheat operation, explained her participation in the following terms:

[I’m] kind of like the little hired girl. If he needs me to pilot him home or help him move a pickup or anything that he needs me to help him do, I’m usually right there...I’m kind of his little side kick. (49, Wheat)

As a general rule the men also referred to women's farm/ranch work as helping (Scott 1996), regardless of how extensive that work was. For example, when asked about his wife's (Anne) involvement in the ranch, Andrew answered:

[She does] anything that I ask her to do, that I need help with. I mean if I need somebody to bale hay she'll bale hay. If I need to move cows, she's very good with the cows 'cause she's very very quiet and has an understanding and has more patience than I do...I'll come in and say I need some help putting this gated pipe together and she never questions it, she just goes and does it whether she likes it or not. She can run any piece of equipment that we got on the place. (70, Cattle)

By framing women as helpers and sidekicks the women and men are able to deemphasize their gender-atypical tasks and actually frame them in very traditional gendered terms. The women simply provide support (a very female thing to do) for the real farmers/ranchers. Her femininity and his masculinity are thus left intact.

Another method for recasting their work in gender terms is to encapsulate farm/ranch work under the umbrella of caretaking work. A common way of doing this that has been identified in other studies is to view farm/ranch work as care work (Adams 1993) such as in the following comment from a survey respondent: "Livestock breeding/care does well under a woman's hand." The same type of reasoning is apparent in Andrew's explanation above of why Anne is very good with the cows. However, this type of reframing can also be done in more subtle ways as demonstrated by the following comment from Marge:

Today my husband is farming up in town, seeding grass and alfalfa. My job today basically is to watch the boys and we went down and fed the fat cows. We feed our own calves out so we have our own feed lot down there. So we fed the fat cattle and fed the horses and then came back up here. (54, Cattle)

In this depiction Marge clearly gave priority to her caretaker role and cast her ranch work as secondary activities that took place *within* that caretaker role. By talking about her work in this manner it is as if feeding the cattle and the horses are a part of watching the boys, rather than ranch tasks that are done day in and day out regardless of whether her two and four year old grandsons are with her.

By discursively reframing themselves as helpers and supporters and by recasting their farm/ranch work as part of their caretaking responsibilities, the women (and the men) were able to contribute to the *appearance* of an “appropriately” gendered division of labor in spite of the reality of the women’s actual performance of what might typically be considered male tasks. These tactics have been reported by others as well (Adams 1993; Bokemeier and Garkovich 1987; Fink 1986). However, reframing and recasting one’s work in these ways can only go so far, and ultimately the women still face the challenges that their farm/ranch involvement poses to their and others’ perceptions of them as feminine. As a result, many of the women employed yet another strategy for producing gender that is more amenable to the farm/ranch setting; they produced gender products.

Gender Products

In their theories of gender, both Goffman (1976a) and West and Zimmerman (1987) focus almost exclusively on the behavioral aspects of gender. Goffman does this through his use

of the concept “Gender Display.” Defining gender as “culturally established correlates of sex” and display as a formalized act or behavior that can be used across contexts to signify a specific meaning, leads him to the concept of “Gender display” which can be defined as formalized behaviors that signify the culturally established correlates of sex (p. 69). Displays in general are important, according to Goffman, because they provide evidence of the actors’ positions vis-à-vis one another to provide context for the interaction that is to follow. In other words, they help one anticipate the expectations and positions (i.e., in Goffman’s terms, the “alignment”) of others in the interaction. In our society, establishing one’s sex (i.e., male or female) is fundamental to determining one’s alignment, but since biological evidence of sex is generally hidden from direct view we rely on masculine or feminine gender displays to communicate what we would like others to believe about our sexual “natures” (Goffman 1976a; Ridgeway and Smith-Lovin 1999).

According to Goffman, displays occur in statement-response pairs such that one person’s display evokes a response from the other person in the interaction. Goffman argues that such statement-response displays are generally scheduled so as not to interfere with the real work of the social interaction. They may occur at the beginnings and endings of interactions (with the real work happening in the middle) or they may overlay the interaction without interfering with the actual intended work (e.g., Goffman provides the examples of a military salute vs. a military member standing at attention throughout an encounter with a superior) (p. 70).

West and Zimmerman (1987) draw on certain aspects of Goffman’s depiction of gender in that they too emphasize the importance of interactional behavior for establishing gender. However, they also push it further by arguing that gender affects many human activities and is “not merely something that happens in the nooks and crannies of interaction, fitted in here and there and not interfering with the serious business of life” (p. 130). West and Zimmerman take

the stance that gender is more ubiquitous in interaction and they emphasize the importance of exploring gender production as an “*ongoing* activity embedded in everyday interaction” (p. 130 – emphasis mine).

As summarized above, many researchers have shown how doing everyday activities as men and women serves the function of producing gender. However, Goffman and West and Zimmerman’s sole focus on behavior and its carryover into the work that has come out of their perspectives has obscured another potentially important element of gender production, the material products that are produced through gendered activities – that is, the *gender products*. In other words, both the behaviors and the material outcomes of the behaviors signify femininity and masculinity with an important difference being that the gender products have an enduring quality that can oftentimes outlive the behavior itself.

In the case of farm/ranch women gender products take on additional importance in the production of gender precisely because typical gender behaviors are not as readily available to women as they are in other settings. As an example, a farm/ranch woman can undertake the “womanly” behaviors of cleaning and decorating the house and fixing a meal. Those behaviors, in and of themselves, signify her femininity to any observers at the time she is doing them. It is the products of those behaviors (an inviting house and good food), however, that signify her femininity when, along with those working alongside her, she returns to the house for lunch in dirty jeans, muck boots, and a flannel shirt after vaccinating and branding cattle all morning. At a moment such as this when her bodily gender display is undependable, the house and the food can stand in to signify that she is fundamentally feminine (and therefore female) despite the current necessity of her dressing and working in ways we typically associate with masculinity (i.e., “like a man”). In fact, even if there are no witnesses to her actually cleaning the house and

preparing the food (which is often the case), the products themselves can represent those behaviors and thereby her femininity. The material products, therefore, take on very important social significance.

One of the places in the interviews where the importance of gender products became quite obvious was when the women were asked what, in their view, it takes for them to be the best wife they can be. Some answers included:

I chose my role to be to make sure the house is in order, the cooking is done, and the yard is nice. (Anne, 67, Cattle)

Oh, I guess, well if there's good nutritious food and there's some semblance of order and the kids are independent and mature functioning adults. (Samantha, 59, Cattle)

Make sure to keep this place as calm as possible so he has a place to come home to that's stress free. (Jenny, 41, Cattle)

Um, probably an ideal wife would have dinner ready every night, have a clean house, be very organized, and there for your husband. (Betty, 46, Wheat)

Few would argue the point that being a good wife is a large part of being a good woman for those who are married. It is notable, however, that in their descriptions, these women focused on the end products of the work they felt they had to do to be a good wife rather than focusing on the act of doing the work itself. Their focus, in these quotes, on the end products

attests to the importance of these products in doing gender. These quotes also begin to suggest what some important gender products are.

The House. As indicated in the example above, a clean house can be a gender product and thus serve as a symbol of a woman's femininity. In the interviews there was a general consensus among the women that the actual work that they put into house cleaning is not enjoyable. In fact, many of the women said that housework was their least favorite task; there were only a few exceptions in which women said they did not mind doing housework, and none listed it as their favorite task. While they did not particularly enjoy doing housework, the women, by and large, recognized it as primarily their job, not their husbands', and believed that having their house appear clean (i.e., the end product) was very important. For example, consider the following remarks made by Jenny, a 41 year old from a cattle operation.

I just hate cleaning the house....It just bugs me when people think I'm a slob. And I'm not a slob, but I'm not spotless...But when I have company I want it at least to look clean.

Jenny's remarks show the connection between the cleanliness of her house and how she thinks people judge her as a person. They also, however, show a common tendency to use the house as a display (more specifically, a gender display) to tell others something about oneself. Her comment that she wants it "at least to look clean" betrays that it is not the act of cleaning the house that matters, but the perception of cleanliness on the part of her guests. After all, they are the ones who will judge her and as West and Zimmerman (1987) point out, we are not simply held accountable for our actions, we are held accountable for our actions as men and women. In

Jenny's case, the clean house represents her success as a woman. Seeing only the end product also, incidentally, allows the guests to ignore the sometimes unfeminine work that goes into producing a clean house.

Similarly, Sydney, a 49 year old from a wheat operation stressed the contradiction she faces between her dislike of cleaning and appreciation for the end product of cleaning. As her comments show, Sydney takes much pleasure from the end product, but not the process of getting to it, presumably because it is the end product, not the process, that reflects her success.

I love it when it's clean and I've worked my butt off to get it clean, but there's a few between parts where eeew....I don't like to dust that much, but when I do it, I do love it when it's done. Just like hating to fold the clothes...I hate the folding part, but I love it when it's done. (Sydney, 49, Wheat)

Cleanliness is perhaps the most universal element of the house in terms of symbolizing femininity, but having a well decorated house reflects on one's femininity as well. Fewer of the women directly acknowledged the importance of having a decorated house, although nearly all of them had clearly put significant effort into their decorations. Further, when asked, nearly all of the women claimed that decorating the house was their job and for most of them the decorations were meant to provide a warm and inviting space (the men were more in charge of large construction /remodeling projects).

Interviewer: I notice you have a lot of decorations. Is that something that you do, something that you are really into, or is it the girls or is it him that's into it?

Jessica: No, it's probably more me. I like color.

Interviewer: What about decorating does it for you?

Jessica: I like to look at stuff and different things will bring back memories. I can't say that I like things necessarily to match, but in here I like red and my living room I like to make kind of a warm and cozy and peaceful place. That kind of thing. I like pretty.
(Jessica, 43, Wheat)

I'm the house decorator....In fact I'm way overdue to change that window. I have my wheat picked and I'm gonna chop [it] down, put it in mason jars and stuff. I just change with the seasons or when I get bored of what it looks like in here...It just makes it homey. (Brooke, 30, Wheat)

While most of the women simply saw keeping the house clean and decorated as one of their responsibilities, a few directly linked the cleanliness and décor of their homes to their femininity. Consider, for example, the following conversation about Erin's perception of her femininity.

Interviewer: What moves you so far inward off of completely feminine?

Erin: Well, a lot of things that most women are interested in, I'm not. You know, like scrapbooking is really big and you can get into the class where all the mothers get together and scrapbook, and that's really boring. And of course I'm a horrible housekeeper and I can't decorate. I just don't have the knack and they all have their houses all decorated perfect and nice. (50, Wheat)

Likewise, in talking about the effect her off-farm job had on her activities around the house, Sydney (49, Wheat) implicitly linked a clean house to her womanhood: “I’m not a *superwoman*. I did my mail route well, but you know, the house lacked” (emphasis mine).

Even some of the men made explicit connections between a clean and decorated house and femininity, both for themselves and for their wives as in the following conversation with Ethan (32, Wheat and volunteer EMT).

Interviewer: Are there other things that make you feel like you slide to the middle or is it just being in touch with her?

Ethan: I would say being in touch with her...The medical interest is a lot of it. I am very open to females. I don’t ever feel like I can’t talk to a female...and a lot of female friends ask me questions because they think that I’m a doctor...I like stuff decorated nice. When I was a bachelor, which was a very short time, it wasn’t a normal guy’s, beer cans piled high and cable spools for tables. So I think that’s what puts me in the middle....

Interviewer: And when you think of completely feminine, what does that bring to mind?

Ethan: Completely feminine is, [my wife] takes the time to make sure she’s pretty, done up, tends to herself. The house is always straight. These decorations change once a month. There are boxes and boxes of stuff.

Many of the women also expressed the belief that having a clean and decorated house was of more concern to them than it would be to their husbands. In addition, they were quite

reluctant to give up control over the cleanliness or décor of the house, mostly because they felt that their husbands would not produce as nice of an end product.

A lot of the stuff I do I think is important but I don't think it would be as important to him to keep the yard and the house up like I do...I don't want to say that what I do is not important because I think that it is. (Diane, 46, Wheat)

I just would rather do [housework] myself than to see him do it a different way. I would just as soon do it myself and have it done right. (Lilly, 37, Wheat)

Finally, as one additional piece of evidence that it is the end product that matters to these women, several indicated that the most and best housework gets done in the absence of their husbands. At these times, there is nobody to witness the actual doing of the task, and the only evidence is the end product, a clean house, that their husbands come home to.

Interviewer: And then are there times when he takes off to do things?

Rachael: Oh he goes hunting...And I enjoy that when he's gone....Oh see, I'm planning already how I'm gonna have the house just shining when he gets back [laugh]. I love it when I'm not interrupted. I can make a great big mess and just leave it and go to bed and get up in the morning and attack it again. But if he's here see I have to have everything picked up. So, yeah, I like it when he goes and does his thing. (69, Cattle)

If he's out for an afternoon, I'm thinking I can clean house. (Megan, 28, Wheat & Cattle)

The Yard and Flowers. Evidence from the interviews suggests that women's yards can also be products that, in their "finished" state, symbolize femininity. Interestingly, many of the women talked about doing yard work itself as not being feminine (although most still really enjoyed doing it). When asked what completely feminine means to her, for example, Sandy (53, Cattle) answered, "It means somebody that doesn't even want to get their hands dirty...and wouldn't begin to do yard work or plant flowers or ride a horse or brand calves." Yet at the same time many of the women felt that having a nice yard was part of homemaking:

When I did stay home [instead of working off-farm] I felt like I had to have dinner on the table every night. The house had to be spotless. The yard had to be perfect. (Lilly, 37, Wheat)

When I was a kid I hated having to work in the garden...We had this garden out behind the house...I hated to go out in the garden because I'd just get all stuffed up. And we got married and we had like the whole thing. We had to have a raspberry patch and all these things that I didn't really like so much growing up. But I think when I finally had my own house, I just loved it. (Charlotte, 42, Wheat)

Many of the women also indicated that they are the ones who care about having a nice yard and that the yard is not as high of a priority for their husbands. For example, Amanda (61, Cattle) took primary responsibility for her family's immaculately landscaped yard, but when asked what would happen if she were gone, answered, "He'd probably plant alfalfa up to the back door." In other words, he would convert the yard to a hay field. The same theme marked

Sydney's (49, Wheat) response to the same question, but she drew a much more explicit connection between the yard and femininity:

Oh goodness, I'm not sure. I mean he would be okay I think. He can do the house stuff. That wouldn't be a big deal. The yard thing...he would have to downsize because I got a lot of *little girly things* going that he just wouldn't need...I've got 63 roses. (emphasis mine)

In this comment Sydney clearly indicates that she considers the landscaped plantings and the flowers to be feminine items ("girly"). Later in the interview Sydney returned to the topic of her yard:

I like yard working. It is sometimes real hard and tiring, but it really makes me feel good because nothing is prettier than that garden in full bloom. We had our son married out here...and my roses cooperated so nicely. I was very proud of them and I took very good care of them and they bloomed beautiful...So nothing is more...good for my soul than that garden.

As with housekeeping, the yard took on additional importance when others were present to see it. For the guests, the beautiful blooming of the roses presumably served as testament to Sydney's care and nurturing of them. Like Sydney, many of the women indicated that they fixed up their yards when they were expecting company. Finally at the very end of the interview the following exchange with Sydney took place:

Interviewer: Do you think that your roses and your flowers and stuff, do you think they influence how you feel about yourself in terms of femininity or masculinity? Or is that unrelated?

Sydney: I think it's perhaps related. I almost said no, but I do love those roses and they do, just looking at them makes you feel pretty I guess. I'm real proud that I grow them. I mean they're pretty. They're good by themselves, but goodness when I do take like extra care of them they're like "hi!" They're really good. I think so. I think probably it does...I do love my flowers and I think that it's the feminine part of me. And it does kind of make me feel a little more feminine.

Thus, although the work required to maintain a nice yard is difficult and tiring, the final product has the added benefit of enhancing the perception that one is feminine and thus her own feeling of femininity. In fact, like housework, several of the women indicated that they don't like others to do the yard work because they like to have control over the end product themselves.

I don't let anybody mow my lawn because they don't go clear to the edges like I do...I like to do it because I do it better than anyone else [laugh]. (Sandy, 53, Cattle)

Food. Food is another product that can reflect one's gender when the demands of the farm interfere because it symbolizes what is considered to be women's work. For example, Anne (67, Cattle) explained that it is important to her and her husband that friends are always welcome at their house. She then continued:

I mean my neighbors all know I keep cookies in the freezer and so they'll show up and say, "what's the cookies?" [laugh]. Or they'll stop in for lunch, you know. And stuff like that is fine with me because I'm one of these people that believe that if you can't accept me the way I am at the time you come, then you don't accept me.

In this excerpt we can see the tension that Anne faces because her work on the ranch defeminizes her. She is clearly aware that when people just drop in without notice they may see her looking dirty and bedraggled and that some people may make judgments based on her appearance and the work she is doing. At the same time though, the lunch or the cookies that are always in the freezer attest to her true feminine "nature." Thus, from the safety of being a woman who is known in the community for her cookies, Anne can take a slightly defensive stance toward anyone who might judge her for the farm work she does or her appearance while doing it.

Unlike the house or the yard, it is sometimes a little more difficult to separate the end product of food from the acts of preparing and serving it. To be their best, some foods have to be prepared immediately prior to serving them, making the work of preparing them more visible. In addition, the act of serving the food is itself oftentimes a gender producing act. However, the women brought up many instances when their work in producing food is separate from the end product. Two common examples include when the women leave prepared food for their families when they are going to be away for the day and when they send lunches with the workers out into the field. In both of these instances the food represents the woman.

When I'm going to be gone...I have to figure out what I can leave...I can always fix egg salad sandwiches. Fix the egg salad and a pot of beans, salad. Works for them. I try to keep certain things on hand because I know that's gonna happen....The other day I said, "well look in the containers in the refrigerator" because I had the taco things all ready. And so they cleaned everything out. (Ruth, 70, Cattle)

During harvest I do a nice lunch. I make a breakfast sandwich with egg and bacon on it and then it'll be a roast beef or ham or chicken sandwich. And then I always make a little salad for them, so like some mac salad. Harvest I do much better with lunches because I've got people coming in [laugh]. We have guests, not just [my husband]....And everyone goes like, "we just come here to drive wheat truck because of the food." So I do put forth great effort during harvest. (Sydney, 49, Wheat)

The reason that food can symbolize femininity is because it fits within gendered ideologies about women's "natural" caretaking and nurturing abilities/drives. This linkage is demonstrated in the following comments made about being a good grandmother.

I'm going to strive to be a very very good grandma. Very good. The lady that passed away, we went to the funeral, the granddaughter stood up and said nice things about grandma, saying, "there was always homemade cookies in the cookie jar." I'm going "ahh, but I'm a crappy cookie maker." [laugh]. I don't know how I'll make do. I'll go buy Oreos. "There was always Oreos in Grandma's cookie jar." (Sydney, 49, Wheat)

Although said somewhat in jest, it is clear that Sydney is facing a dilemma. To be a good grandmother, a very gendered status, requires always having cookies available. The cookies, and perhaps more importantly, the quality of the cookies (i.e., homemade), symbolize good grandmothing. But Sydney is not, by her own judgment, a good baker. As a result, she seems to be anticipating having trouble attaining the status “good grandma,” a status that she very much desires.

Perhaps because they have a vested interest in the end product, several of the women expressed the desire to maintain control over food rather than have their husband or other family members take it over. For example, Emma (54, Cattle & Wheat) explained, “Like for cooking, sometimes it’s easier for me just to do it than to have them under foot. It’s just sometimes easier doing it yourself because they don’t do it the way I do.” This sentiment is similar to that expressed about both housework and yard work.

Family Members. Other “products” that reflect on women are their immediate family members: their spouse and children. When it came to their spouses, over a third of the women reported taking special measures to ensure that their appearance is nice in public. Comments like the following from Marge (54, Cattle) were not uncommon among these women.

What’s kind of funny is when we go somewhere he’ll say, “what do you want me to wear?” so I pick his clothes out for him...He doesn’t care if he is dirty and grubby and whatever. And I want him to look nice. I mean, especially if we’re going somewhere.

Similar behaviors have been reported in previous studies. For example, Brandth (1994) writes, “A woman knows very well that if her husband, for instance, is not clean and nicely

dressed, it is not a minus on him as a man, but on her as a woman” (p. 140). In her study Brandth found that the farm women in her focus groups admitted to judging other women based on the appearance of their men. A nice-appearing husband signifies a good and capable wife (i.e., woman) whereas a poorly-appearing husband signifies failure as a wife and as a woman. This same logic extends to children in the current study as many of the women also made it a point to ensure that their children appeared neat and tidy in public. For example, Lilly (37, Wheat) explained:

I don't let them wear jeans very often to school. They wear Dockers, khakis, that kind of stuff. And I make them wear collared shirts. That's just my sticking point and it's important to me and they know it...And we always get compliments that the kids look nice all the time, which I like. That's important to me.

While the farm woman is working in the fields, the tidy appearance of her children at school serves as evidence to the community of her ability as a woman. But appearance isn't the only aspect of children that the women actively sought to produce to reflect their own capability as women and mothers. They also felt that their children's conduct directly reflected on them. For example, in talking about her mother- and father-in-law Sarah (48, Wheat & Cattle) explained, “When the kids do something, and it doesn't even have to be wrong, it can be just something they don't approve of...it's my fault. If the kids are good and polite then it's [my husband's] fault.” Another example comes from Krystal (48, Wheat & Cattle) whose son had gotten in some trouble at school in the previous year.

I told him this year, I said, “you just have to go to school, keep your nose to the grindstone, head under the radar. I don’t want to get any more of those phone calls from the principal.” But see in that respect I was kind of, you’re always kind of embarrassed when your kids do things. You think oh my god, other parents must just think I’m just...

As with the previous products, few of the women directly connected their children to their own femininity. However, Jessica, a 43 year old from a wheat operation did:

I’m certainly not completely feminine....I can’t say that I’m raising my daughters to be feminine or traditional. Um, even submissive. I think they’re pretty strong willed. I think they’re very strong willed. They’re pretty independent. And I don’t think that completely feminine women would probably raise their daughters that way.

Being completely feminine most likely was not Jessica’s goal, but the notable aspect of the point she makes here is the direct connection between how her daughters have turned out and her own femininity. While her daughters’ independence does not make her feel completely feminine, their ability to take care of themselves does give her a sense of success as a mother.

They know how to clean. They know how to cook...They know how to do the laundry. They could easily replace me. I mean that sounds terrible...but I’m glad. I would want to know that if something happened to me or if I got sick things would continue on. Then I feel like I’ve done my job.

Crafts. The final gender products that came up repeatedly throughout the interviews were crafts. When asked what they do for hobbies or in their leisure time, nearly two thirds of the women mentioned some sort of craft (and many of the women paused in the interview to show me examples). One of the most mentioned crafts was the scrapbook. The scrapbook as a gender product is very powerful because it can serve as a marker of femininity in two different ways. First, as a product itself, it can represent one's feminine skills (i.e., the skills required to organize pictures and decorations into a visually appealing display). Many of the women reported spending extensive time and energy making sure their scrapbooks were done well. There was also an undercurrent in their comments of feeling like they *should* have the family's pictures organized and displayed in scrapbooks, like they have a responsibility to do so. For example,

I love scrapbooking...I just like doing it 'cause it's cool when I get done....instead of having boxes of pictures. My youngest daughter, she's totally a scrapbooker. I mean she just gets pictures and they're in a scrapbook and I've got boxes. But I'm getting better.
(Emma, 54, Wheat & Cattle)

Oh, I've got to start scrapbooking...I've got all my stuff in boxes and it's fairly well organized, or at least it's all in one place lined up and nice, but they're just not scrapbooked yet. And I don't know if I feel like I need to scrapbook, or it's like something I have to get done because that's what you do, or if I actually want to do it. I want to have a place for all my pictures and memorabilia....And that's something to me that takes a lot of time and detailed effort and quiet. I wouldn't be able to just throw them in a book and call it good. It'd have to be just right. (Brooke, 30, Wheat)

As such, scrapbooking was largely regarded as an activity that most women participate in. Such was the case with Erin (see page 17) who listed her disinterest in scrapbooking as an example of a reason she regards herself as more masculine than most other women.

The second way a scrapbook can serve as a marker of femininity is through its strategic use to keep a record of and display information about oneself. For example, Goffman (1976b) says of pictures:

Whenever there is a wedding, an investiture, a birthday party, a graduation exercise, an extended voyage begun or terminated, a picnic, a shop opening, a vacation, or even a visit, snapshots may well be taken, developed, and the prints kept easy to hand.

Something like self-worship can thus be accomplished. The individual is able to catch himself at a moment when-for him-he is in ideal surroundings, in association with socially desirable others, garbed in a self-enhancing way (which for white-collar men may mean the rough and manly wear of fishermen, hunters, wranglers, or machinists)...A moment when what is visible about him attest to social matters about which he is proud. A moment, in short, when he is in social bloom, ready, therefore, to accept his appearance as a typification of himself. This moment he can dry-freeze and hang on the walls of his house, his office, his shop, his locker, and his wallet, a reference point to which he can return time and again (and long after he can no longer live the scene) as testimonial, as evidence, as depiction, of what his best social self has been and, by implication, must still be. (p. 78)

Goffman wrote this passage long before scrapbooking was as popular as it is now, but his main point still applies. By choosing which pictures to include and, I would argue, how to adorn and display them, people (in this case, women) can manipulate their presentation of self in desirable ways. However, I would add to Goffman's comments that in representing oneself, one is not limited to photographs of herself or to photographs of ceremonial occasions. A photograph of one's children enjoying a birthday party or even just playing happily in a raked up pile of fall leaves can be a very strong testament to one's motherhood. Pictures of many other items (i.e., the house, the yard, one's spouse, food) can also be used to reflect important information about a person. The power of such photographs to represent a person may even be enhanced by the impression that the happenings featured in the photograph are not special occasions, but instead are a normal, routine part of everyday life (i.e., my kids are always this happy and well adjusted).

I chose to focus on scrapbooking as a craft because of its dual function as a gender product. However, the women also mentioned a number of other craft making hobbies such as sewing, quilting, needlework (knitting, crocheting and cross stitching), ceramics, and woodworking among other things. Many of the women displayed their crafts around their houses or had them easily accessible to show to visitors (like myself). Some, however, were given away to friends and family members or to charity organizations. Like scrapbooking, whether one did or did not produce these crafts (as evidenced by the final product) played into ideas about femininity. For example, when Jenny (41, Cattle), a quilter and cross-stitcher, was asked why she perceives her daughter as less feminine than herself she answered, "[she] never played with dolls. Wouldn't pick up a needle to save her life."

Gender Products: Evidence from the Survey

As with most qualitative work, there is the possibility that the findings presented here are an artifact of the select group of individuals chosen to participate in the research. As a result, an attempt to test the effect of gender products on one's perception of their own gender was included in the aforementioned survey of Washington farm and ranch women. The test consists of using ordinary least squares regression to regress gender self-perceptions on women's assessment of their success at producing the items that the interviews revealed were gender products.

For this test gender self-perceptions (the dependent variable) were measured using the gender scale in Figure 3.2. Respondents were presented with the scale and asked to place an A on the line where they think they land. They were also asked to use the letters B, C, and D to mark where they think their spouse/partner lands and where both society's ideal woman and man would be. The variable representing one's perception of their own gender consists of a measure of the number of millimeters from the "completely" feminine endpoint to the location where the respondent placed their "A". Thus, the coefficients in the regression model represent shifts (in millimeters) along the scale. A negative coefficient signifies a shift toward the feminine end of the scale and a positive coefficient signifies a shift toward the masculine end.

Figure 3.2: Gender Self-Perceptions Scale



The success at producing products (the independent variables) was measured by a question in which the women were asked to rate their success at producing a number of items which were then grouped into scales based on product type. The response options were very successful, somewhat successful, slightly successful, and not at all successful. A *house* scale was formed by calculating the mean score of two items, “having a clean house” and “having a well decorated house ($\alpha = .81$). A *yard* scale consisted of the average of three items, “having a well kept yard,” “growing a vegetable garden,” and “growing flowers or a flower garden” ($\alpha = .77$). The items “having children appear neat in public,” “males in my family being masculine,” and “females in my family being feminine” were averaged to form a *family* scale ($\alpha = .77$). Finally, two items, “serving food that tastes good” and “serving food that looks good,” were averaged to form a *food* scale ($\alpha = .89$).

Control variables in the model include the following:

- Age – interview year minus birth year.
- Education – consists of eight categories (8th grade or less; 9-11th grade; high school or equivalent; some college (no degree); vocational or technical school graduate; associates degree (A.A.); college graduate (B.S., B.A); and post-graduate training).
- Income – total net family income from all sources before taxes measured using six categories increasing in increments of \$20,000 each.
- Children – A dummy variable where 0 indicates that the respondent has no children and 1 indicates that the respondent has children.
- Employment status – three dummy variables marking those who are currently employed in a predominantly male occupation, a predominantly female occupation, and those for

whom the sex composition of the job is unknown (based on the Standard Occupation Classification System).

The results of the test can be seen in Table 3.3. In the Model 1, gender self-perceptions are regressed on the products scales for all respondents with no control variables. In Model 2, the control variables are added to the equation. The results indicate that the more successful women felt about having produced a clean and well decorated house the more feminine they felt they were. With each additional level of success the women moved themselves just over a half a centimeter toward the feminine end of the scale. Similarly, each additional level of success in the family scale resulted in a shift of nine millimeters toward the feminine end of the scale and shifts of nearly six millimeters resulted for each additional level of success producing good tasting and looking food. These results are quite consistent with the interview findings reported above.

The one inconsistency is that success with the yard was associated with shifts (of 3.6 millimeters) toward the masculine end of the scale, although this effect only approached significance. However, the positive coefficient for the yard only appears when the house, family, and food product variables are entered into the regression. In Bivariate analyses and even when the control variables are entered into a model containing only the yard product variable the coefficient is negative. The other product variable that has the most substantial effect on the yard variable is the house variable. The house and yard variables are correlated at .50 suggesting that these two variables are fairly strongly related to one another.⁷

⁷ Results were not significantly changed by the inclusion of an additional variable controlling for how much responsibility the women have for household tasks. This variable ranged from zero (no responsibility) to 16 (full responsibility) and consisted of a sum for responses to 8 tasks ($\alpha = .75$) including grocery shopping, cooking, dishes, laundry, taking out garbage, cleaning, clothing shopping, and caring for the yard.

Table 3.3: OLS Regression of Gender Self-Perceptions on Products

	Model 1	Model 2	Model 3	Model 4	Coefficient Difference Test
	<u>All</u>	<u>All</u>	<u>Grain</u>	<u>Livestock</u>	<u>F(1, 250)</u>
House	-5.25* (2.37)	-5.38* (2.33)	-6.85+ (3.77)	-4.14 (3.47)	0.28
Yard	4.11+ (2.17)	3.60+ (2.15)	5.32 (3.33)	0.90 (3.08)	0.94
Family	-9.21*** (2.45)	-9.05*** (2.42)	-5.98+ (3.30)	-3.81 (4.52)	0.15
Food	-6.58* (2.65)	-5.93* (2.59)	-6.36 (3.90)	-8.07+ (4.31)	0.09
Age		-0.37** (0.13)	-0.48* (0.21)	-0.20 (0.19)	1.02
Education		-1.38+ (0.81)	-1.12 (1.27)	-1.28 (1.31)	0.01
Income		-1.21 (0.95)	-0.67 (1.49)	-3.45* (1.48)	1.74
Feminized Job		-6.30+ (3.23)	-17.25*** (4.97)	3.58 (5.10)	8.52**
Non-feminized Job		9.10+ (4.91)	-0.32 (7.68)	21.76** (7.75)	4.08*
Unknown Sex Ratio Job		6.12 (8.85)	-4.82 (14.97)	14.89 (11.23)	1.09
Children		-5.11 (5.20)	-3.15 (8.97)	-5.60 (7.26)	0.04
Constant	101.64*** (9.74)	137.98*** (13.52)	132.69*** (21.06)	126.09*** (22.63)	0.05
Observations	322	322	132	142	0.83
R-squared	0.13	0.19	0.25	0.17	

Standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%; ***significant at .1%

The third and fourth columns in Table 3.3 contain the full models estimated separately for women from operations where only grain is produced (i.e., no livestock) and operations where only livestock are produced (i.e., no grain). The purpose of these models was to test for differences in effects across commodities. The final column contains a Wald Test for differences (obtained by testing the pairs of coefficients from a pooled regression model). The results indicate that there are no significant differences with respect to the product variables across the two commodity groups.

Taken together the results of this test indicate that women's judged success with the final products of their work affects their gender self-perceptions. Thus we might call these "gender products." Additionally, these effects are robust across different types of operations.

CONCLUSIONS

Both the interviews and the survey data that provide the foundation for this paper show that, although farm and ranch women make every attempt to do gender using the common strategies of feminine bodily displays and maintaining a gendered division of labor, these strategies do not always work for them. Most of the women at least occasionally participated in gender atypical work that challenged their ability to enact feminine bodily displays. In addition, the women were not able to compartmentalize their work and home lives as people in other occupations might be able to do. Thus the two strategies that other research has most often cited for producing gender were not always reliable for farm and ranch women. Yet gender is still clearly produced in the farm/ranch setting.

The primary argument of this paper is that the focus previous theories and perspectives on the construction of gender have put on the "doing" has obscured the importance of the end products of the "doing" for producing gender (i.e., the gender products). In the farm/ranch setting it is the gender products that remind us that, despite her tractor driving, she is a woman. More specifically, it is the clean and well decorated house, the immaculate yard with its gardens and flowers, the cookies in the freezer, the polite and neat children, the well kept spouse, and the scrapbooks and quilts that attest to the ranch woman's femininity during the times that she is unable, because of her work, to act and dress feminine herself. The advantage of gender products for producing gender, then, is that they have an enduring quality that far outlasts the

behavior of producing them and that can attest to one's gender even when the "doing" was not actually witnessed.

I want to be careful here not to leave the impression that all farm and ranch women are living a nostalgic version of farm life where they have pantries full of canned goods, fresh pies baked every morning, and happy well dressed children frolicking in their white picket fenced yards. These are not storybook families or the stuff of nostalgia. Few, if any, of the women I interviewed were able to produce every gender product that I talked about here. More often they excelled at one or two products and did worse at others or skipped some altogether. These families are quite ordinary in that way. And although it is open to investigation, I also do not think their use of gender products to symbolize their femininity is unique to the farm/ranch setting. Rather, I believe that this tactic is widely used across all segments of American society but is simply more obvious in the farm/ranch setting because other methods of doing gender are less available.

As such, the implications of these findings are vast. Perhaps the most important implication for gender studies and especially for those working within the "doing gender" perspective is that some activities and behaviors that occur outside of direct interaction may also be important for understanding the production of gender. The production of gender, it seems, does not only happen immediately in a moment of interaction between or among people as has previously been assumed. Instead, the production of gender products may occur at one point in time (either in isolation in interaction) and then the gender products themselves may be used to symbolize gender (with the producer present or absent) at another point in time altogether. Additionally, the symbolism of some products (e.g., household décor) may last well beyond their production.

This finding might also help explain the contradictory findings reported in previous research whereby women want to retain control over certain household chores despite their difficult and mundane qualities (Berk 1985). Why would a woman who works a full time job also have a vested interest in an unequal division of labor at home? Based on the findings reported here, I can confidently say her enjoyment of housework is most likely not the answer. Another dissatisfying answer is that she is somehow blind to the inequality (i.e., false consciousness) or that it is purely the result of her oppression at the hands of her spouse. A more likely explanation (and one that recognizes women's agency) is that she has a vested interest in both the production (Berk 1985) and the quality of the final product. Ultimately, she is the one who will be held accountable for the final products, and she will be held accountable in a way that strikes to the very core of who she is, a woman (Ridgeway and Smith-Lovin 1999).

These findings also have implications for research on the intersections of gender with other statuses such as class and race (Collins 2000; 2004). Inasmuch as gender products are oftentimes actual material products, their production and upkeep requires financial resources. Those with resources should be much more able, therefore, to produce gender products and as a result much more able to fit the models of gender that are valued in our society. As such, gender products may play an important role in the social processes by which gender is used to create and reinscribe race and class distinctions (i.e., middle class white women form the standard to which non-white women and lower-class women are held) (Spellman1988).

There may also be implications for understanding consumerism as these findings provide a link between consumption and a fundamental source of our sense of self, gender. As women increasingly take part in what have traditionally been considered men's work and activities, gender products may take on increasing importance as signifiers of femininity. Inasmuch as the

production of gender products requires the purchase of material goods, consumption of such goods will most likely increase.

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CHAPTER 4

GENDER AND MENTAL HEALTH IN THE FARM/RANCH SETTING

While farm and ranch women's contributions to their operations have been recognized and catalogued through multiple research projects since the 1980s, the impacts that their involvement in farming and ranching has on their mental health outcomes has received substantially less attention in the research. The few studies that have been done have uncovered a handful of occupation-related stressors such as financial burden, off-farm employment, and work overload that are linked to decreased mental health outcomes of farm/ranch women (Walker and Walker 1987; Armstrong and Schulman 1990). Additionally, a number of resources, both social and personal, that have been found to improve outcomes among non-farm and urban women have also been found to be effective among farm/ranch women. These include such things as good marital relationships, spousal support, and religion (Meyer and Labao 2003; Lorens et al. 2000; Melberg 2003).

A somewhat separate strand of research has recently revealed a significant relationship between farm and ranch women's involvement in farm/ranch tasks and both how feminine/masculine they perceive themselves to be and how different they think their gender is from that of society's ideal woman as they perceive her. In particular, women who are more involved with farm/ranch tasks report feeling more masculine and more different from society's ideal woman (Smyth 2007a). In addition, research with non-farm and urban samples has revealed that women's gender orientations are linked to their mental health outcomes (Bem 1977; Johnson and Petrie 1995; Ruffing-Rahal et al. 1998). These two bodies of research together suggest that gender may be an intervening variable in the relationship between farm/ranch stressors and resources and mental health outcomes.

This study attempts to bring together these three different strands of research to examine the role that gender plays in predicting farm and ranch women's mental health outcomes. The main purpose of the paper is to test the hypothesis that gender mediates the negative relationship between farm/ranch stressors and mental health and the positive relationship between social and personal resources and mental health. In other words, I ask the question, do stressors and resources affect mental health directly or do they affect mental health indirectly by altering gender orientations? A secondary purpose is to examine the impact that gender itself has on farm and ranch women's mental health outcomes. To address these issues I use data from a 2006 random sample survey of women in cattle and wheat operations in Washington State.

BACKGROUND

While the terms "farming" and "ranching" generally conjure images of male figures, women have long been significant contributors to family farms and ranches. The first national survey of farm women, carried out in 1980, for example, found that almost all of the 2,509 women interviewed reported participating in at least some of the farm tasks on their operations and most of them participated in over half of the tasks they were asked about including tasks that are largely considered to be "men's work" such as field work, harvesting, and marketing products (Jones and Rosenfeld 1981). Since 1980, the findings of this survey have been confirmed by a number of additional studies (Adams 1993; Bokemeier and Garkovich 1987; Sachs 1983; 1988; Scott 1996; Simpson, Wilson, and Young 1988). Women, although "invisible" as farmers (Sachs 1983), have long been involved in a multitude of tasks on the farm and their involvement continues today (Smyth 2007a).

That women are involved in their farms and ranches raises the question of what effect their involvement has on their health. Farming and ranching are among the most dangerous jobs

in the United States, both in terms of injury and illness rates and in terms of fatality rates (BLS 2006a; 2006b). In 2005 women accounted for nearly 20 percent of agricultural injuries and illnesses involving days away from work in the U.S. (BLS 2006c) and nearly 7 percent of agricultural fatalities (BLS 2006d). However, the effect of their participation in farming and ranching on their mental health is less well understood, although several studies have examined this issue.

Previous literature has shown that a number of occupation-related factors are associated with the mental health outcomes of women in agriculture. The general perspective that the literature takes is the stress perspective in which mental health outcomes such as depression are seen as symptoms of stress resulting from life situations and events (Pearlin et al. 1981). Within this perspective, it is generally agreed that social support and personal resources have positive effects on mental health and can sometimes compensate for the negative effects of occupation-related stressors (House, Umberson, and Landis 1988; Umberson et al. 1996; Melberg 2003).

With respect to farm/ranch stressors, several factors have emerged as harmful to women's mental health in previous literature. One of these factors is financial strain (Lorenz et al. 2000; Meyer and Labao 2003; Walker and Walker 1987; Weigel and Weigel 1987). Recent research, however, has shown that farm and off-farm income alone do not adequately capture financial strain and instead subjective measures should be used (Armstrong and Schulman 1990). For example, Melberg (2003) found that subjective evaluations of the household's economy and of their ability to pay regular and unexpected bills significantly predicted both farm men's and farm women's psychological well-being with financial strain being negatively related to well-being. Farm women's various work arrangements have also been linked to stress outcomes. For example, off-farm employment, which is increasingly becoming a necessity for farm and ranch

women, has been identified as a stress inducing factor (Duncan, Volk, & Lewis 1988; Lorenz et al. 2000; Walker and Walker 1987; see Melberg 2003 for an exception) as has farm involvement (Walker and Walker 1987). A third source of stress that is probably linked to off-farm employment and farm involvement is problems balancing work and family responsibilities (Walker and Walker 1987; Weigel and Weigel 1987). Poor physical health, working in hazardous environments and age are the final predictors of stress and stress outcomes that have been identified in previous literature as affecting farm and ranch women's mental health (Melberg 2003; Meyer and Lobao 2003).

In addition to those factors that have been found to have negative effects on mental health outcomes, a number of factors have been found to have positive effects. One such factor is marital relationship quality. Previous research has shown that close marital relationships are positively related to mental health (House et al. 1988; Melberg 2003; Umberson et al. 1996; Walker and Walker 1987). A closely related factor that has positive effects on farm women's mental health is their husbands' support of their roles and duties (Berkowitz and Perkins 1984; Gerrard, Kulig, and Nowatzki 2004; Giesen et al. 1989; Melberg 2003; Walker and Walker 1987). Meyer and Labao (2003) have also shown that religious affiliation has positive effects on mental health outcomes. In particular, they found that for women who experienced the 1980s Midwest farm crisis, having any religious affiliation enhanced their mental health outcomes. Finally, education and personal mastery are expected to have positive effects on mental health. Education should have positive effects to the extent that it helps link individuals to additional social and economic resources (Ross and Van Willigen 1997). Similarly, having a sense of control over one's life, or mastery, has been shown to make people more likely to attempt to solve their problems thus improving mental health outcomes (Ross and Mirowsky 1989).

While each of the aforementioned factors is important to explaining farm women's mental health outcomes, I would like to argue in this paper that inasmuch as their gender self-perceptions are related to farm/ranch involvement (Smyth 2007a), their gender self-perceptions might also be important *occupation-related* predictors of mental health outcomes and, therefore, should be taken into consideration in trying to understand farm and ranch women's well-being. In fact, there is a substantial body of research outside of rural sociology that has established a link between gender identity and mental health outcomes. The general findings of this literature is that masculinity and androgyny are associated with increased well-being, including among other things decreased depression scores and increased self-esteem (Bem 1993; Buckley and Carter 2005; Burke, Stets, and Pirog-Good 1988; Johnson et al. 2006; Li, DiGiuseppe, and Froh 2006). Androgyny (i.e., strong in both femininity and masculinity), in particular, has long been considered the "best" gender identity for mental health (Bem 1974; 1977). However, there is some indication that femininity is associated with improved well-being among populations of women where gender orientations tend to be particularly masculine (Ruffing-Rahal et al. 1998). These findings suggest contradictory expectations for how farm/ranch women's gender self-perceptions will be related to their mental health.

Identity theory provides one possible explanation for why and how farm women's gender identity in particular may be related to their mental health outcomes. According to Burke (1991) an "*identity is a set of 'meanings' applied to the self in a social role or situation defining what it means to be who one is*" (p. 837 emphasis original). As such, it forms a reference point or standard for who one is. When an individual gets an input related to a specific identity from their environment (i.e., feedback from others) they compare that input to their identity (i.e., standard). Any mismatch between the input and the identity stimulates a modification in the

output sent back to the environment (i.e., the individual's subsequent behavior) which then presumably affects the next input thereby forming a continuous feedback loop (Burke 1991). The ultimate goal is to establish and maintain a social state whereby input or feedback from the environment matches one's identity (in essence this means a state whereby the feedback one gets for one's behaviors aligns with who they think they are). When this is not the case, the individual experiences distress. As Burke (1991) explains:

Social stress results from the interruption of the continuously adjusting identity process.

Any process or event that prevents a person from outputting behaviors that change the reflected appraisals of others to be congruent with their identity standard...or that prevent a person from being able to perceive the reflected appraisals of others constitute an interruption of the identity process. (P. 840 emphasis original)

Burke goes on to posit that the interruption of an identity will lead to increased levels of distress: 1) when the interrupted identity is highly salient, 2) when the interrupted identity is one the person is highly committed to, 3) in the face of repeated or severe interruptions, and 4) when the source of the interruption is significant to the person (i.e., a spouse versus a stranger on the street).

This model of identity processes has been applied to gender by Stets and Burke (1996) who argue that one's gender identity standard represents a certain degree of femininity/masculinity that they attempt to maintain through their behavior across different settings and situations. If the person experiences a discrepancy between their perceptions of their femininity/masculinity in a situation and their identity standard they will act more or less

feminine/masculine in an attempt to produce congruence between their self-perception and their identity standard. The inability to do so results in distress.

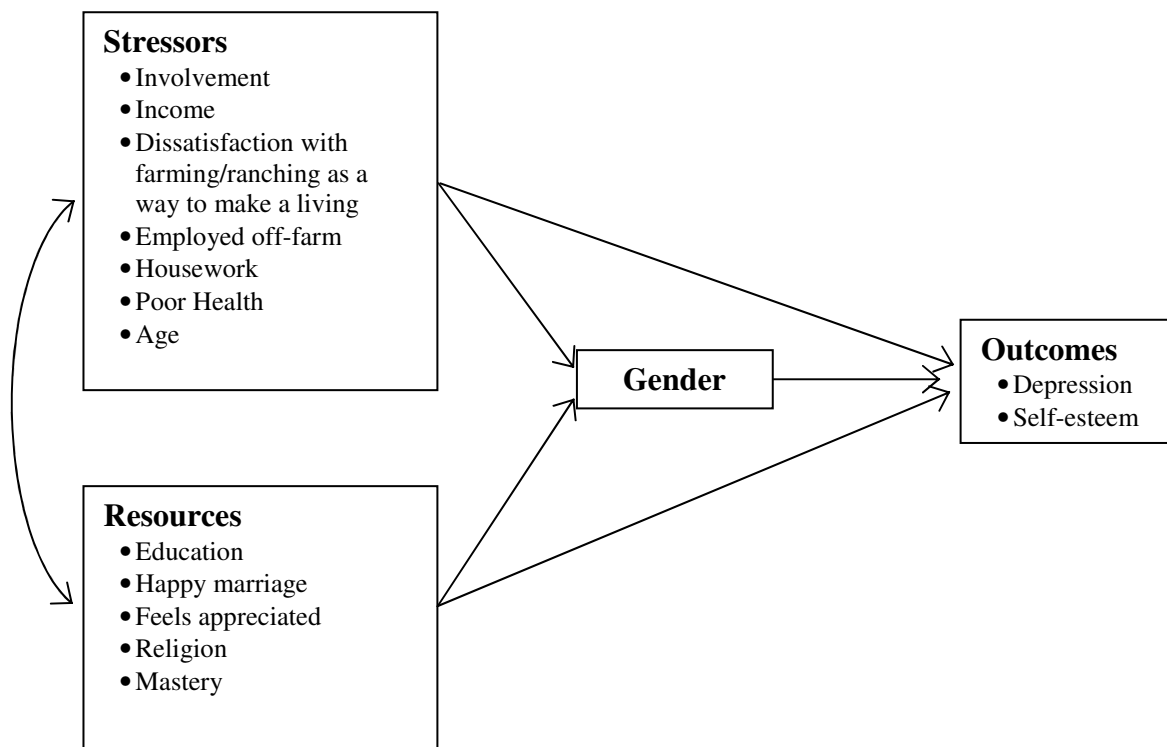
Research in the area of gender and eating disorders seems to support this theory. Johnson and Petrie (1995) found, for example, that college women with no discrepancy between their perceived femininity/masculinity and ideal levels of femininity/masculinity report higher self-esteem and a lower occurrence of eating disorders while those who report discrepancies between real and ideal gender levels report lower self-esteem and higher occurrence of eating disorders.

Previous research about women's involvement in farming and ranching suggests that their involvement may interrupt their gender identity processes. In particular, higher involvement in farm and ranch tasks results in women perceiving themselves to be more masculine and perceiving a larger discrepancy between their own femininity/masculinity and their judgment of the femininity/masculinity of society's ideal woman (Smyth 2007a). Additionally, such involvement hinders their ability to behave in the most obvious feminine ways (i.e., dress and division of labor) which they may need to do to realign their gender self-perceptions with their identity standard (Smyth 2007b).

Inasmuch as gender is a master identity, making it highly salient and important, and is an identity to which people are generally highly committed we would expect sustained interruptions in the gender identity processes by the necessity of completing farm and ranch tasks to have negative consequences for farm women's mental health outcomes. Additionally, inasmuch as participation in farm and ranch tasks oftentimes occurs on a daily basis and significantly inhibits many behaviors through which women usually "do gender" (Smyth 2007b), we might expect even greater negative mental health outcomes. Thus, gender may be a mediating variable between the effects of farm/ranch stressors, especially involvement levels, and mental health

outcomes. It is also possible that gender plays the same mediating role for the effects of support and resources variables on mental health outcomes. For example, the positive effect of marital quality on mental health found in previous research may actually occur because marital quality affects one's sense of gender which then affects mental health outcomes. Figure 4.1 provides a schematic of these hypothesized relationships. This figure shows that both stressors and resources are expected to have direct effects on mental health outcomes, but they are expected to have indirect effects through gender as well. Whether or not gender plays such a mediating role is the focus of this paper.

Figure 4.1: Hypothesized Relationship between Farm/Ranch Stressors, Resources, Gender, and Mental Health Outcomes



METHODS & ANALYTIC STRATEGY

The data for this paper come from a mail survey of 1,475 women from cattle and wheat operations in Washington State. The sample was limited to cattle and wheat operations to meet the objectives of a larger research project that examined gender processes in animal- and machine-intensive operations (Smyth 2007a, 2007b). The sample was obtained from the Washington State USDA/National Agricultural Statistics Service list using systematic random sampling by county. Several stipulations were applied to the sampling frame and the final sample to ensure that only wheat and cattle family operations were selected and only operations in which farming/ranching was central to family life were included. These stipulations included that operations had to have at least \$1,000 of farm sales and be coded either as primarily a grain farm with positive wheat acreage or a cattle and calves operation with positive head of cattle (but less than five head of milk cows). In addition, Washington State University educational farms, Indian Reservations, Washington Department of Fish and Wildlife operations, and cooperative agreements were excluded from the sampling frame. Incorporated operations with ten or more stockholders and those in which the principle occupation of the principle operator was coded as other than farming/ranching were also eliminated from the sample.

The questionnaire was designed and fielded using Tailored Design techniques (Dillman 2007). It was printed on 12 pages in 8½ x 11 booklet form and contained 52 questions. The implementation strategy included personalized signatures, a two dollar token incentive with the first mailing, the provision of a postage paid return envelope and three mailings (initial contact and questionnaire, postcard reminder, reminder letter and replacement questionnaire) timed for effectiveness. The overall response rate was 33% as 491 women completed and returned the

survey; however, 21 of the completes were deemed ineligible leaving a final sample of 470 completed surveys.⁸

Dependent Variables

It is now common practice among those measuring mental health outcomes to measure both negative and positive affect (Diener 1994). The current study stays within this tradition by modeling both negative (depression) and positive (self-esteem) outcome variables. Depression is measured using a shortened 12-item version of the Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff 1977). The items included in the shortened scale are shown in Figure 4.2. Respondents were asked, “On how many days during the past week did you experience each of the following? Please enter a number from 0 to 7 in each box.” The depression scale was formed by summing responses to these 12 items ($\alpha = 0.91$). Higher scores on the scale represent higher levels of depression. The final scale could range from zero to 84. Respondents’ scores actually ranged from zero to 82 with a mean of 11.0. To reduce positive skew, the depression variable used in the analyses that follow is the natural log of depression.

Figure 4.2: CES-D Items Used to Form Depression Scale

Feel bothered by things that usually don’t bother you?
Not feel like eating; appetite was poor?
Feel that you could not shake off the blues even with help from your family or friends?
Have trouble keeping your mind on what you were doing?
Feel depressed?
Feel that everything you did was an effort?
Feel Fearful?
Sleep restlessly?
Talk less than usual?
Feel lonely?
Feel sad?
Feel you could not get going?

⁸ These included surveys that were filled out by men and surveys where the respondent indicated that they had sold the farm/ranch but they filled out the survey as if they still operated it.

Self-esteem is measured using a shortened 6-item Rosenberg self-esteem scale (Rosenberg 1965). The six items used are shown in Figure 4.3. Respondents were asked to indicate the extent to which they agree or disagree with each statement and were provided with the following scale points: strongly agree, agree, disagree, and strongly disagree. A self-esteem scale was formulated by summing the responses to the six items ($\alpha = 0.81$) with the negative items reverse coded such that higher scores on the scale represent higher self-esteem. The final scale could range from 1 to 24. Respondents' scores ranged from 9 to 24 with a mean of 19.8. To reduce negative skew the scores were squared for analyses.

Figure 4.3: Items Used to Form Self-Esteem Scale

I am a person of worth at least on an equal basis with others.

At times I think I'm no good at all.

I wish I could have more respect for myself.

On the whole, I am satisfied with myself.

I certainly feel useless at times.

I feel that I have a number of good qualities.

Gender Measures

The scale in Figure 4.4 was provided to survey respondents and they were asked to mark on it where they thought they landed and where they thought society's ideal woman landed. They were also asked to mark on the scale where their spouse landed if they had one and where society's ideal man would land.

The gender variable in the first set of analyses that follow is a measure of women's gender self-perceptions equivalent to the number of millimeters from the "completely feminine"

endpoint of the scale to where they placed the mark representing their own location on the scale. This variable has the potential to vary from one to 152 millimeters. Actual responses varied from zero to 148 millimeters.

Figure 4.4: Gender Self-Perception Scale



The gender variable that will be modeled in the second set of analyses is a measure of discrepancy between where the woman placed herself on the scale and where she indicated that society's ideal woman would land on the scale. The variable was created by subtracting the location of society's ideal woman from the location of the respondent. Thus negative values represent women who felt more feminine than their judgment of society's ideal woman and positive values reflect feeling more masculine than society's ideal. This variable has the potential of ranging from -152 to 152, but the data actually range from -126 to 132.

Stressor Variables

Farm/ranch involvement was measured by a scale consisting of 18 farm/ranch tasks (Figure 4.5). For each of the tasks respondents were asked to indicate whether they regularly, occasionally, or never do it or if it does not apply on their operation. Responses to the items were averaged to form a scale ranging from zero to three ($\alpha = 0.88$).

Figure 4.5: Farm/Ranch Tasks for the Involvement Scale

Plowing, disking, planting or harvesting	Vaccinating cattle
Applying fertilizers, herbicides, or insecticides	Branding, dehorning, or castrating cattle
Driving large trucks	Running farm/ranch errands
Doing fieldwork without machinery	Fixing or maintaining equipment
Caring for horses	Making major equipment purchases
Doing farm/ranch work with horses	Marketing products
Checking cattle	Bookkeeping, records, finances, or taxes
Calving/pulling calves	Supervising the farm/ranch work of others
Feeding cattle	Caring for garden or animals for family use

Income was measured by a question asking respondents to report their total net (i.e., after farm/ranch expenses) family income from all sources before taxes using six categories that ranged from “less than \$19,999” to “\$100,000 or more” (each category covered a \$20,000 range). Since previous research has shown that such objective measures of one’s financial situation are not sufficient to capture financial strain (Melberg 2003), a second financial variable (0,1) is included that marks those respondents who indicated they are neutral, somewhat dissatisfied, or very dissatisfied with farming/ranching as a way to make a living as opposed to those who indicated that they are somewhat or very satisfied.

Off-farm employment is included as a dummy variable where zero indicates those respondents who are not employed off-farm and a one indicates those who are. A series of regressions (not shown) experimented with variables indicating whether the job was made up of a majority of females (i.e., over 50% female), males (i.e., over 50% male), or had an unknown sex ratio, but since these variables did not make a difference, the more parsimonious employment variable is included in the models below.

Since no direct measure of role strain was available in the data, a variable measuring the women’s amount of responsibility for housework is included instead. The assumption here is that the more housework one is responsible for, the more those responsibilities will conflict with

other roles she has to fulfill. The women were asked who in their family has primary responsibility for each of the following household tasks: grocery shopping, cooking, dishes, laundry, taking out garbage, cleaning, clothing shopping, and caring for the yard. Women who indicated that they had primary responsibility for a task were given a 2, those indicating that they shared responsibility equally with their spouse/partner were given a 1, and those indicating that their spouse/partner or someone else had primary responsibility were given a zero. The scores were then summed across the eight items to form a scale ranging from 0 to 16 ($\alpha = 0.75$).

Women's actual scores ranged from 0 to 16 with a mean of 13.

The final stressor variable is a dichotomous variable that marks those respondents who indicated that, compared to other people their age, their health was fair, poor, or very poor. The omitted category with this variable is those respondents who indicated that their health was excellent or good compared to others their own age.

Support and Resource Variables

The first social support variable included in the models is a measure of marital quality. Respondents were asked, "Taking all things together, how would you describe your marriage/partnership? Very happy, Somewhat happy, Neither happy nor unhappy, Somewhat unhappy, Very unhappy." Respondents who indicated that their marriages were very or somewhat happy were coded as 1 while those who indicated their marriages were neither happy nor unhappy or somewhat or very unhappy were coded as 0.

The second social support variable is a measure of how appreciated the women felt. Previous research has shown that husbands' support of the wife's obligations and roles has positive effects on well-being (Walker & Walker 1987 and others). The current study uses a more broad assessment of feeling appreciated. The women were asked to indicate how

appreciated they feel for the farm/ranch work they do, the housework they do, the childcare they do, and the off-farm employment they do using the following scale: fully appreciated, somewhat appreciated, slightly appreciated, or not at all appreciated (or does not apply). Responses to these four items were averaged to form an appreciation scale ranging from zero to three with a mean of 2.1 ($\alpha = 0.89$).

Meyer and Labao (2003) argue and find that that religion has a positive effect on well-being. Therefore, a dichotomous variable marking those respondents who indicated a religious affiliation is included in the models.

Mastery, as measured by six items (Figure 4.6) from the Pearlin Mastery Scale (Pearlin et al. 1981), is included in the models as a personal resource that is expected to improve well-being (Ross and Mirowsky 1989). Respondents were asked to indicate whether they strongly agree, agree, disagree, or strongly disagree to each item. After reverse coding certain items so that higher values indicate increased mastery, the six items were summed to form a scale ranging from 0 to 24 ($\alpha = 0.73$). Actual responses ranged from 9 to 24 with a mean of 18.1.

Figure 4.6: Items Used to Form Mastery Scale

Sometimes I feel that I am being pushed around in life.

I can do just about anything I really set my mind to.

I have little control over the things that happen to me.

What happens to me in the future mostly depends on me.

There is really no way I can solve some problems I have.

I often feel helpless in dealing with the problems of life.

Inasmuch as age and education are also expected to affect well-being, they too are included in the models. Age is measured in years and education is measured by one of eight categories representing the respondents' highest level of education. The eight categories are: 8th grade or less; 9-11th grade; high school or equivalent; some college (no degree); vocational or technical school graduate; associates degree (A.A.); college graduate (B.S., B.A); and post-graduate training.

Table 4.1 shows descriptive statistics for all the study variables.

Table 4.1: Study Variables and Descriptive Statistics (n = 317)

	<u>Continuous Variables</u>				<u>Dichotomous Variables</u>
	<u>Mean</u>	<u>Standard Deviation</u>	<u>Range</u>		<u>Percent</u>
			<u>Minimum</u>	<u>Maximum</u>	
Dependent Variables					
Depression	11.0	13.2	0.0	82	---
Self-Esteem (squared)	19.8	3.1	9.0	24.0	---
Independent Variables					
Farm/Ranch Involvement	1.6	0.5	0.2	2.9	---
Income	3.1	1.5	1.0	6.0	---
Dissat. way to make living	---	---	---	---	37.2
Employed Off-Farm	---	---	---	---	49.8
Housework Responsibility	13.0	3.1	0.0	16.0	---
Poor Health	---	---	---	---	14.2
Age	54.7	11.6	21.0	88.0	---
Education	5.2	1.8	2.0	8.0	---
Happy Marriage	---	---	---	---	86.1
Feels Appreciated	2.1	0.7	0.0	3.0	---
Has Religion	---	---	---	---	82.0
Mastery	18.1	3.0	9.0	24.0	---
Potential Mediators					
Gender Self-Perceptions	45.5	26.9	1.0	148.0	---
Gender Discrepancy	9.8	30.0	-126.0	132.0	---

FINDINGS

The Effects of Stressors, Resources, and Gender on Depression

The results for the depression outcome are shown in Table 4.2. For each model, both the unstandardized and standardized (beta) regression coefficients are reported. Model 1 in this table shows the results of regressing depression on the stressor and resources variables. The results indicate that respondents who believe their physical health to be poor compared to others their age report higher levels of depression. In contrast, those who are in happy marriages and/or feel appreciated report lower levels of depression. There is a similar negative relationship between mastery and depression, such that higher levels of mastery result in lower levels of depression.

The test of *gender self-perceptions* as a mediating variable occurs in Model 2 of Table 4.2. If gender self-perceptions mediate the effects of the stressors and resources on depression, we would expect to see an attenuation of those significant effects reported in Model 1 upon entering gender self-perceptions into the equation as is done in Model 2. Contrary to expectations, the results indicate that gender does not mediate the relationships between depression and poor health, feeling appreciated, or mastery. It does very slightly reduce the size of the relationship between having a happy marriage and depression, but since there is no significant relationship between gender self-perceptions and depression, this does not appear to be a true mediating relationship. Overall then, this model indicates that the stressors and resources have their effects on depression independent of gender self-perceptions.

Model 3 shows the results of the mediating effects of *gender discrepancy* on depression. The logic of this test is the same as the previous in that if gender discrepancy mediates the effects of the stressors and/or resources on depression, we should see an attenuation of the effects of these variables between Model 1 where the gender discrepancy variables are omitted and Model

Table 4.2: Effects of Stressors, Resources, and Gender on Depression [ln(depression)]

	Model 1		Model 2		Model 3	
	b	Beta	b	Beta	b	Beta
Farm/ranch involvement	0.03 (0.10)	0.01	0.01 (0.10)	0.00	0.02 (0.10)	0.01
Income	0.04 (0.04)	0.05	0.04 (0.04)	0.05	0.05 (0.04)	0.07
Dissat. As way to make living	0.06 (0.11)	0.03	0.06 (0.11)	0.03	0.07 (0.11)	0.03
Employed off-farm	0.10 (0.11)	0.04	0.10 (0.11)	0.04	0.10 (0.11)	0.04
Housework Responsibility	-0.03 (0.02)	-0.07	-0.03 (0.02)	-0.07	-0.02 (0.02)	-0.06
Poor health	0.53*** (0.15)	0.17	0.54*** (0.15)	0.17	0.52*** (0.15)	0.16
Age	-0.01 (0.00)	-0.06	-0.01 (0.00)	-0.06	-0.00 (0.00)	-0.04
Education	-0.04 (0.03)	-0.06	-0.04 (0.03)	-0.06	-0.04 (0.03)	-0.07
Happy marriage	-0.45** (0.15)	-0.14	-0.43** (0.16)	-0.13	-0.40** (0.15)	-0.12
Feels appreciated	-0.45*** (0.08)	-0.29	-0.45*** (0.08)	-0.29	-0.45*** (0.08)	-0.29
Has religion	-0.11 (0.13)	-0.04	-0.10 (0.13)	-0.03	-0.08 (0.13)	-0.03
Mastery	-0.13*** (0.02)	-0.35	-0.13*** (0.02)	-0.35	-0.13*** (0.02)	-0.34
Gender self-perceptions			0.00 (0.00)	0.04		
Gender discrepancy					0.00 (0.00)	0.01
Gender discrepancy ²					0.00* (0.00)	0.10
Constant	6.35*** (0.60)	5.63	6.23*** (0.61)	5.52	6.00*** (0.61)	5.32
Observations	317		317		317	
R-squared	0.39		0.39		0.40	

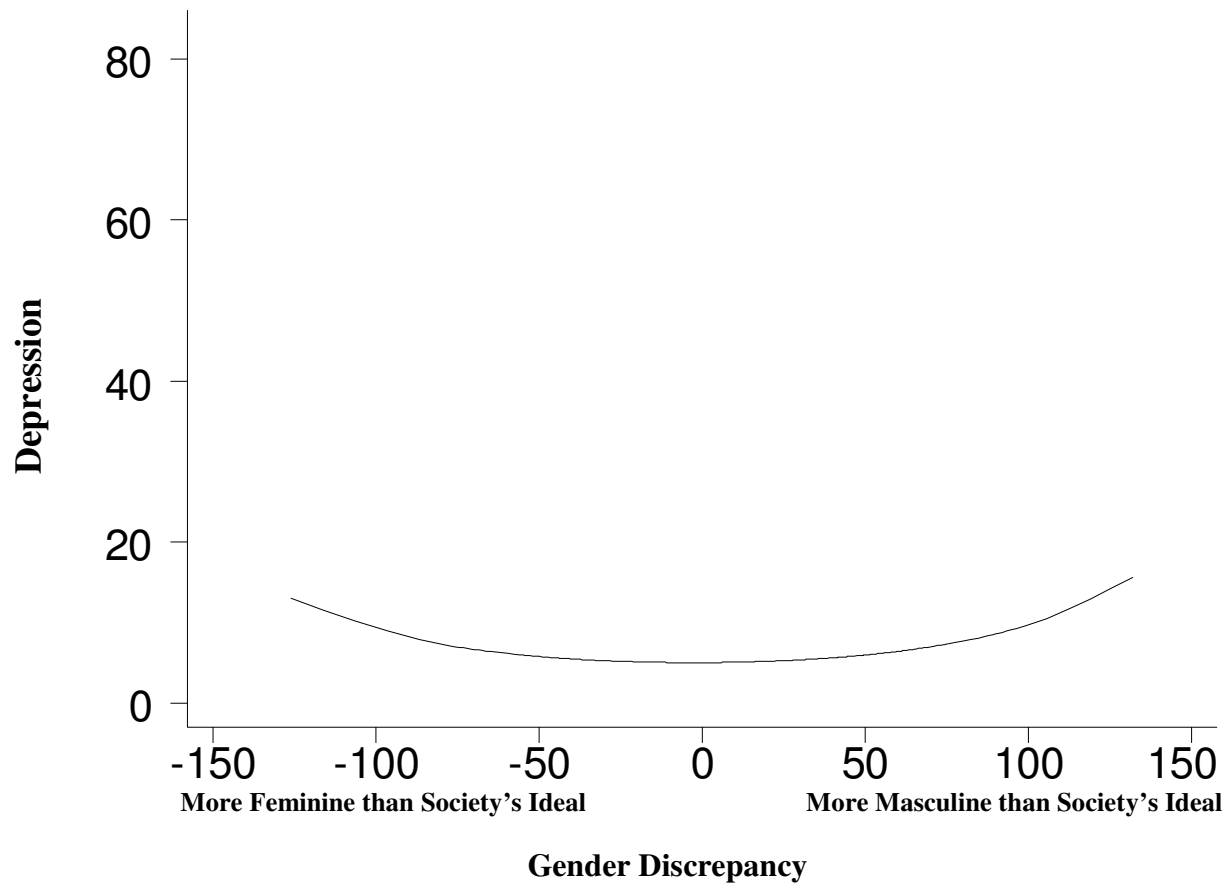
Standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%; ***significant at .1%

3 where they are included in the equation. The results suggest that gender discrepancy does mediate, albeit to very small degrees, the effects of poor health and happy marriages on depression as evidenced by small reductions in the magnitude of the coefficients for these variables. Practically speaking this means that a very small amount of the effect of having poor health or a happy marriage has on depression levels occurs because these variables affect how a woman feels her gender compares to that of society's ideal woman. In particular, bivariate analyses indicate that having poor health is associated with increased gender discrepancy and having a happy marriage is associated with reduced gender discrepancy.

In addition to these findings, Model 3 indicates that there is a significant relationship between gender discrepancy and depression. This relationship, however, is not linear, but instead takes a U-shape. While this effect seems very small based on the findings in Model 3, it is important to remember that the dependent variable is the natural log of depression, meaning that such effect sizes are not easily interpreted without additional transformations. Figure 4.7 shows the effect of gender discrepancy on depression with those additional transformations (i.e., exponentiated predicted values) and holding all other variables at constant levels. The zero value in the x-axis represents situations in which the women felt they matched society's ideal woman in terms of femininity/masculinity. The negative numbers represent those who feel more feminine than society's ideal, and the positive numbers represent those who report feeling more masculine. This graph shows that as a woman feels increasingly different from how she believes society's ideal woman is (either more feminine or more masculine), she experiences higher levels of depression. In addition, the further women get from society's ideal, the faster depression scores increase. In other words, the effect on depression is greater at the two ends of the gender discrepancy scale.

Figure 4.7: The Effects of Gender Discrepancy on Depression Holding Other Variables Constant



Modeling the gender discrepancy effect non-linearly in this way accounts for a small increase in the percent of variance in depression that is explained by the model (1%) compared to that which is explained when the effect is modeled linearly. But more importantly though, these findings are very consistent with what identity theory would suggest should be the case: when we feel increasingly different from what we think we should be, we experience distress which manifests itself in reduced well-being.

The Effects of Stressors, Resources, and Gender on Self-Esteem

Table 4.3 shows the results when self-esteem is the outcome variable. As was previously the case, Model 1 shows the results of regressing self-esteem on only the stressor and resource variables. This model indicates that the only stressor variable to have a significant effect is having poor health, which significantly reduces self-esteem. Three of the resources variables, feeling appreciated, having religion, and higher mastery scores, are associated with higher levels of self-esteem.

Model 2 indicates that three of these four effects occur independently of gender self-perceptions, as the coefficients for poor health, feeling appreciated, and mastery are not attenuated when the gender self-perceptions variable is entered into the model. The effect of having a religion, however, does appear to be mediated by gender self-perceptions, as this coefficient is both reduced in magnitude and level of significance. Thus, it appears that some of the positive effect that having a religious denomination has on self-esteem occurs because it is associated with feeling more feminine, which in turn increases self-esteem. Moreover, the results in Model 2 indicate that the effect of gender self-perceptions are significant and are such that feeling more feminine is associated with higher self-esteem and feeling more masculine is associated with lower self-esteem. However, because the self-esteem variable is squared we cannot easily and intuitively interpret from these models the size of the effect of gender self-perceptions without additional transformations. To help understand this effect, Figure 4.8 shows the effects of gender self-perceptions on self-esteem with all other variables held at constant levels and the appropriate transformations conducted (i.e., square root of the predicted values). The plot indicates that as women feel more masculine, their self-esteem decreases. But the relatively flat slope of the line indicates that the rate of the decrease is rather mild.

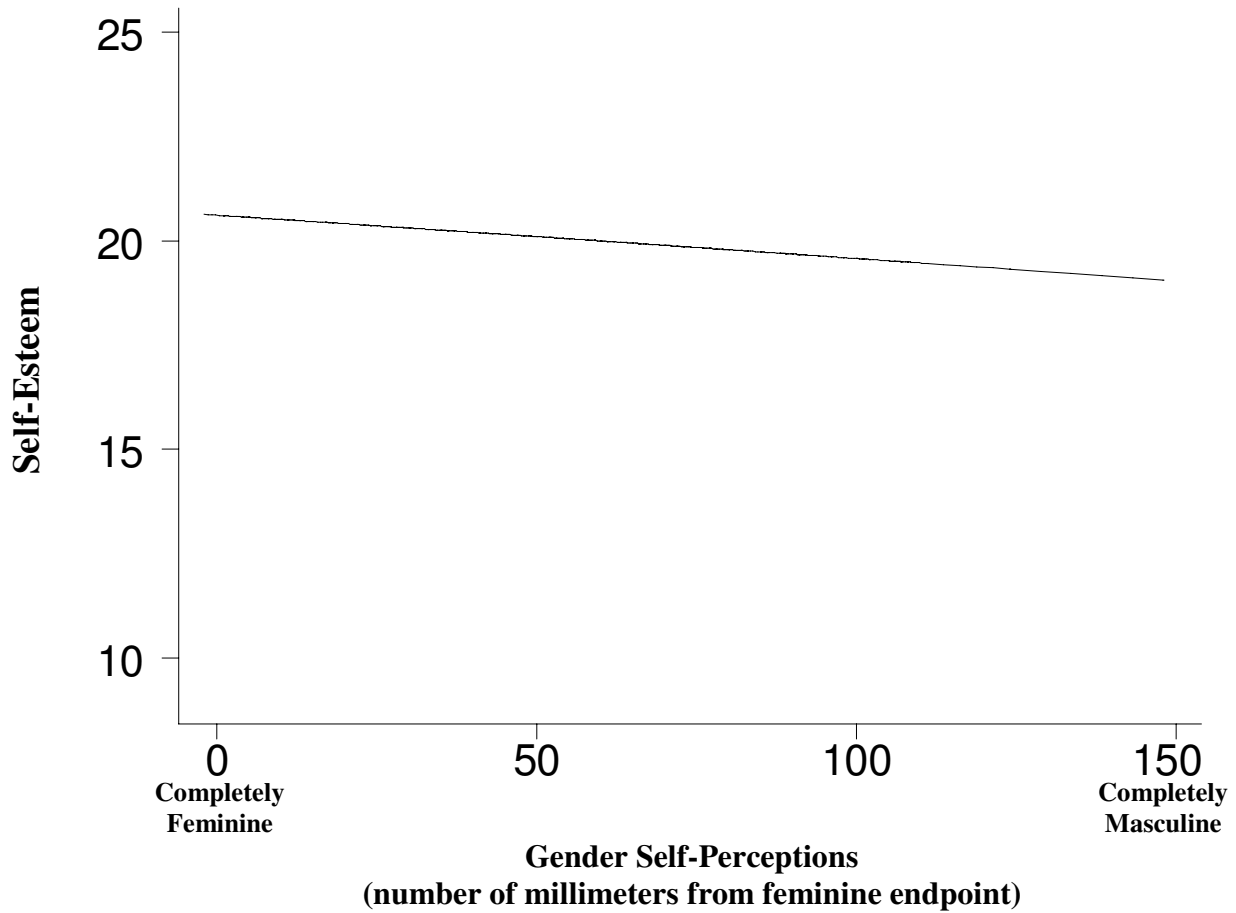
Table 4.3: Effects of Stressors, Resources, and Gender on Self-Esteem (squared)

	Model 1		Model 2		Model 3	
	b	Beta	b	Beta	b	Beta
Farm/ranch involvement	13.01 (9.21)	0.06	18.69* (9.47)	0.09	16.33+ (9.41)	0.07
Income	1.23 (3.38)	0.02	0.81 (3.36)	0.01	1.02 (3.37)	0.01
Dissat. As way to make living	7.81 (10.43)	0.03	8.90 (10.37)	0.04	9.92 (10.40)	0.04
Employed off-farm	10.39 (10.43)	0.04	9.72 (10.37)	0.04	8.18 (10.41)	0.03
Housework	0.40 (1.61)	0.01	0.62 (1.60)	0.02	0.39 (1.60)	0.01
Poor health	-36.65** (13.52)	-0.11	-37.23** (13.43)	-0.11	-33.60* (13.47)	-0.10
Age	0.73 (0.45)	0.07	0.57 (0.45)	0.06	0.48 (0.45)	0.05
Education	1.92 (2.88)	0.03	1.85 (2.86)	0.03	1.63 (2.86)	0.03
Happy marriage	13.33 (14.44)	0.04	10.31 (14.40)	0.03	10.70 (14.39)	0.03
Feels appreciated	23.61*** (7.15)	0.15	23.44*** (7.10)	0.15	23.47*** (7.09)	0.15
Has religion	25.79* (12.58)	0.08	22.25+ (12.59)	0.07	23.52+ (12.52)	0.08
Mastery	24.25*** (1.78)	0.62	24.14*** (1.77)	0.61	23.82*** (1.77)	0.61
Gender self-perceptions			-0.44* (0.19)	-0.10		
Gender discrepancy					-0.18 (0.20)	-0.04
Gender discrepancy ²					-0.01+ (0.00)	-0.08
Constant	-203.25*** (56.26)	-1.73	-176.48** (57.08)	-1.50	-172.37** (57.43)	-1.46
Observations	315		315		315	
R-squared	0.51		0.52		0.53	

Standard errors in parentheses

+ significant at 10%; * significant at 5%; ** significant at 1%; ***significant at .1%

Figure 4.8: The Effects of Gender Self-Perceptions on Self-Esteem Holding Other Variables Constant



In addition to these findings, Model 2 indicates that when gender self-perceptions are accounted for in the regression equation, the effects of farm/ranch involvement levels are increased and become significant. In this model, higher involvement is significantly associated with higher self-esteem.

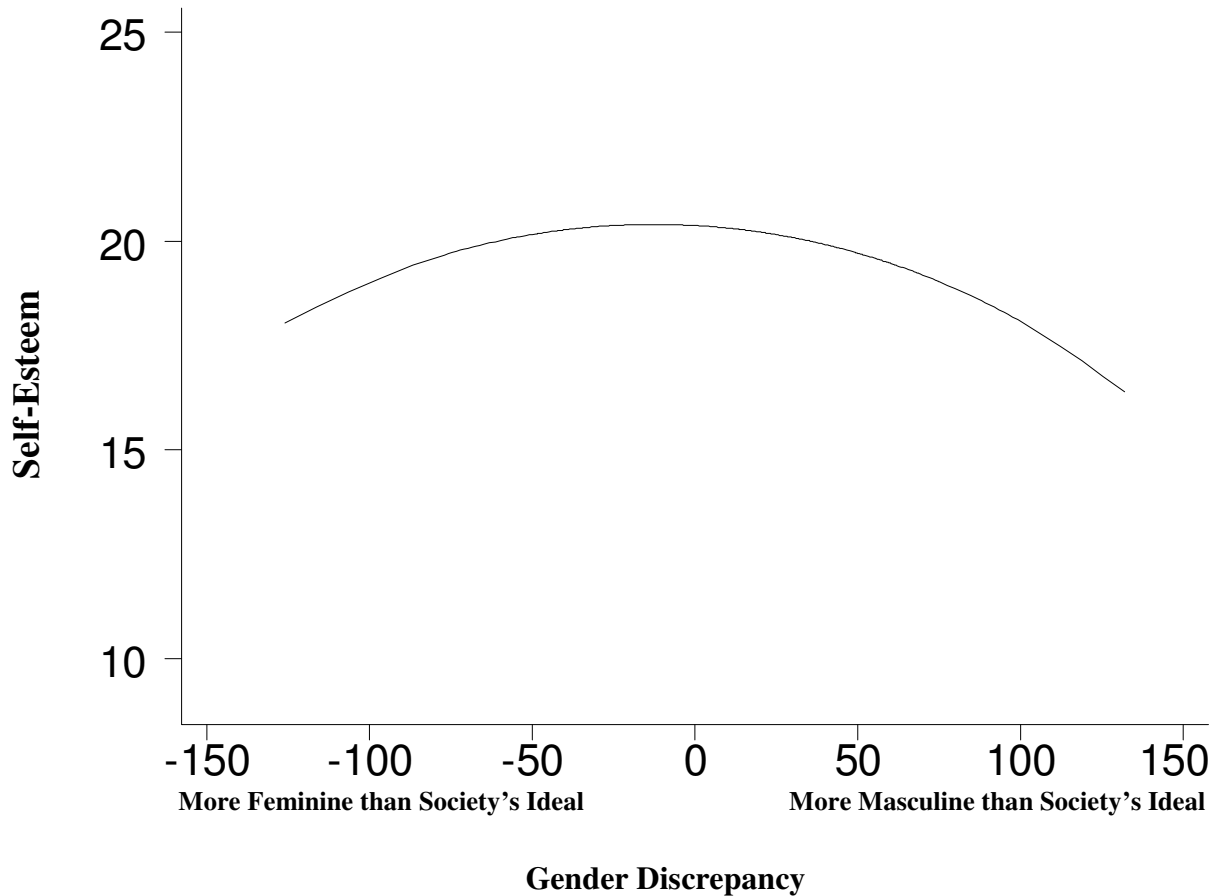
The third model in Table 4.3 shows the effects of entering gender discrepancy variables into the model with stressors and resources. Once again, the relationship between self-esteem and gender discrepancy is modeled in a curvilinear U-shaped way by including the second order

polynomial in the equation. The results indicate that gender discrepancy does mediate the effects of having poor health and religion on self-esteem. The coefficients for both of these variables are reduced in both magnitude and significance, although the change in magnitude is only slight. Nevertheless, these findings indicate that some of the negative effect of poor health and the positive effect of having a religion on self-esteem occurs because these things alter feelings of gender discrepancy.

Model 3 also indicates that the curvilinear relationship between gender discrepancy and self-esteem is moderately significant ($p \leq .100$). This relationship can be seen visually with all other variables held constant (and proper transformations applied) in Figure 4.9. The fact that the high point on this plot is shifted slightly to the left of the zero point suggests that some gender discrepancy can improve self-esteem provided the discrepancy is small and is in the direction of the woman feeling more feminine than she believes society's ideal woman is. The optimal level of discrepancy appears to be about -13. Any more discrepancy in the more feminine direction (left) and self-esteem is decreased, increasingly so the larger the discrepancy. Similarly, self-esteem is decreased at increasing rates the more masculine women feel than society's ideal woman.

Finally, including gender discrepancy in the equation in Model 3 has a similar effect on the farm/ranch involvement variable as gender self-perceptions had. When the gender discrepancy variables are included in the model the coefficient for farm/ranch involvement becomes moderately significant ($p \leq .100$) indicating that higher levels of involvement are associated with higher levels of self-esteem.

Figure 4.9: The Effects of Gender Discrepancy on Self-Esteem Holding Other Variables Constant



As one final observation, Tables 4.2 and 4.3 both report both unstandardized and standardized regression coefficients. The standardized regression coefficients allow for the comparison of effect sizes across the variables included in the models. For both depression and self-esteem, the variable that by far has the largest effects is the mastery variable. For every one standard deviation increase in Mastery, depression is decreased by just over a third of a standard deviation and self-esteem is increased by just shy of two thirds of a standard deviation. Feeling appreciated also has relatively strong impacts on depression. Where the gender variables are significant they seem to have moderate to small impacts (i.e., one tenth of a standard deviation or less).

DISCUSSION & CONCLUSIONS

This paper had two goals. The primary goal was to examine whether or not gender plays a mediating role between the negative effects of farm/ranch stressors on women's well-being and the positive effects of social and personal resources on women's well-being. A secondary goal was to determine the effects of gender on farm and ranch women's well-being.

For the most part, the findings indicate that stressors, resources, and gender independently affect women's depression and self-esteem. There were very few mediating relationships and, among those that did occur, the mediation of the original effect by the gender variables was very slight. However, two mediating relationships do stand out as somewhat noteworthy. First, gender discrepancy mediated both the increase in depression resulting from poor health and the decrease in self-esteem resulting from poor health. Second, the positive effect of religion on self-esteem was mediated by both the gender self-perceptions variable and the gender discrepancy variable. While the amount that these effects were attenuated by the gender variables is quite small, the consistency of these findings lends them some credence.

Although gender only played a minimal mediating role, the findings do indicate that it is independently related to both depression and self-esteem outcomes. It appears, however, that how women compare themselves to a societal standard has more bearing on their mental health outcomes than does their judgment of their own femininity/masculinity in absence of any standard. To the extent that we can consider one's judgment of society's ideal woman to represent the standard they are trying to achieve for themselves, this finding fits squarely within what identity theory might predict. That is, regardless of the direction, any difference between one's reflected appraisal of oneself and their standards should raise distress levels resulting in diminished mental health outcomes (Burke 1991; Stets and Burk 1996). That seems to be the

case in these data, as both women who reported feeling more feminine and women who reported feeling more masculine than they thought society's ideal women is had diminished mental health outcomes (with the exception that feeling slightly more feminine than the ideal could increase self-esteem) and increasingly so at higher levels of discrepancy.

In contrast, gender self-perceptions were only significantly related to self-esteem (not depression); women who reported feeling more masculine also reported lower levels of self-esteem. This finding directly contradicts a large body of literature on gender orientation and well-being that consistently finds that masculinity and androgyny are associated with improved mental health outcomes, including self-esteem, and femininity is associated with diminished outcomes (Bem 1993; Buckley and Carter 2005; Burke, Stets, and Pirog-Good 1988; Johnson et al. 2006; Li, DiGiuseppe, and Froh 2006). However, the finding reported here is consistent with the work of Ruffing-Rahal et al. (1998) who found that among a small sample of older women (65+ years old) who as a group tended to have particularly masculine gender orientations, femininity is positively correlated with well-being. These findings raise the question of whether or not the effects of gender orientation on mental health outcomes differ at the extremes of femininity/masculinity. In other words, perhaps for female populations that are already highly masculine (a situation that we might expect to apply to farm/ranch women), being even more masculine has negative effects whereas being more masculine may have positive effects for populations with lower or more moderate levels of masculinity. Both identity theory and the gender discrepancy findings reported here suggest that there should be some point, relative to an identity standard, where one becomes "too" masculine or "too" feminine resulting in decreased well-being. The "distance" to that point might just be shorter in populations that are more masculine to start with. While plausible, this is a topic in need of additional research.

Overall then, the current study confirms the findings of previous studies in the sense that farm/ranch stressors were linked to reduced well-being and social and personal resources were linked to improved well-being among farm women. However, they also suggest that other factors more internal to respondents, such as gender identity processes, may also play key roles in explaining mental health outcomes. This study suggests, however, that these internal factors, or at least gender as an internal factor, operate independently of farm/ranch stressors and social and personal resources.

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CHAPTER 5

CONCLUSIONS

The goal of this study was to examine gender processes in a context where they are expected to be challenged, the family farm. The study started with the observation that rural sociological research on women in agriculture has repeatedly found them to be involved in farming and ranching in ways that would seem to undermine their ability to feel and act feminine in the ways that mainstream gender sociology has found to be of fundamental importance (Rosenfeld 1986; Sachs 1983). From this observation arose three questions that served as topics for each of the three chapters herein: 1) How does farm/ranch women's involvement in their operations affect their gender identities? 2) How do farm/ranch women "do gender" when they must also do farm/ranch work that stymies their ability to use common gender strategies? 3) How is one's gender related to well-being?

In exploring these topics, several important findings arose. Chapter 2 demonstrated that there is a clear relationship between women's involvement in their farms and ranches and how feminine or masculine they feel. This relationship appears both when looking at the general roles that the women fulfill and at their task involvement. In general, higher levels of involvement are associated with feeling more masculine and feeling more different from where one judges society's ideal woman to be with respect to femininity. These findings are not surprising as they confirm the expectations set by examining mainstream gender literature alongside of rural sociological literature on women in agriculture.

Perhaps more intriguing are several related findings that appeared in Chapter 2. Foremost among these is that participation in sex-atypical tasks has enduring effects on gender identities. When asked why they felt the way they did about their femininity/masculinity many

women referred to activities they had done years in the past. Additionally, the more sex-atypical the activity, the more of an impact it seemed to have on their judgments. Another interesting finding has to do with the ways in which some of the women defined femininity. There was a clear tension in their descriptions between a more traditional version of femininity (emphasized femininity – Connell 1987) that stressed personal appearance, caretaking and nurturing and another version of femininity, capable femininity, that allowed them to integrate their farm work into their view of desirable womanhood. Capable femininity valued women’s ability to perform farm and ranch labor right alongside their ability to be good caretakers and nurturers. The tension existed because on their farms and within their small communities the women seemed to strive to meet the capable femininity model and even revered those who did it well. Here high levels of involvement were generally a source of empowerment and pride. However, ultimately the women were held accountable for, and held themselves accountable for, being feminine in the emphasized femininity sense (especially when they left their farms/ranches), and it is here where they struggled.

Chapter 3 revealed that because of their involvement in their operations the women had difficulty employing strategies of “doing gender” (West and Zimmerman 1987) such as using strategic bodily displays (Herbert 1998) and through the division of labor (Berk 1985). In response to this difficulty, many of the women undertook other methods of doing gender. One such method was to leave the farm/ranch and go to a setting more conducive to previously identified gender strategies. Another method was to reframe their farm and ranch work as caretaking work. But perhaps the biggest revelation of this chapter is that almost all of the women relied on “gender products” to symbolize their gender for them during the times that they could not actively “do gender” in interaction. Gender products are those material products that

are produced through activities that have previously been identified as ways of doing gender (e.g., cleaning house, cooking, etc.) (Berk 1985). The specific gender products that stood out in this study are the house (cleanliness and décor), the yard and flowers, food, family members, and crafts. These products are important because they can represent a woman's femininity to others long after the actual activity of producing them, what has previously been referred to as "doing gender," has been completed. Of particular importance for a farm/ranch woman is that gender products can symbolize her femininity at the same time that she is driving a tractor or sorting cattle and, therefore, cannot "do gender" through her immediate dress or behavior.

This finding is particularly important to gender scholars because it suggests a whole new element to "doing gender" that has thus far been overlooked, perhaps because of the current theory's strong focus on action and activity (i.e., the "doing") rather than the outcome. We can no longer assume that the larger sociological meaning imbued in a behavior such as cleaning a house somehow does not carry over into the final product that behavior produces (i.e., a clean house). Rather, both cleaning the house and having a clean house reflect and symbolize gender to potential witnesses.

Chapter 4 addresses the question of how gender might be implicated in the negative relationship between occupation-related stressors and mental health and in the positive relationship between social and personal support and mental health. In addition, this chapter examines how gender itself is related to the mental health outcomes of depression and self-esteem. The analyses reveal that women who feel more masculine have lower self-esteem scores, but there is no significant effect of feeling more or less feminine/masculine on depression. They also reveal that larger discrepancies between the women's own femininity and that of society's ideal woman (in either the more masculine or feminine direction) are associated

with higher levels of depression and lower levels of self-esteem. These gender effects, however appear to occur independently of involvement in the farm/ranch. In other words, gender is not an intervening variable between involvement and well-being.

Taken together then, this study reveals that farm and ranch involvement makes women feel more masculine and more different from society's ideal woman, and it also inhibits their ability to do gender in commonly recognized ways. However, their involvement is not all bad as it is also associated with increases in self-esteem as was demonstrated by the pride the women expressed in capable femininity (Chapter 2) and through survey data analyses that revealed a positive relationship between involvement levels and self-esteem (Chapter 4).

In addition to these explicit findings, this study also contributes to a growing trend to see women as active agents who shape their own lives, rather than simply passive beings upon which inequality is imposed, and to examine the ways that they enact their agency (Brandth 2002, 2006; Haugen 1998; O'Hara 1998). The women in this study were empowered by their farm/ranch involvement. Moreover, that they could not "do gender" in typical ways did not mean that they could not produce femininity at all in the farm/ranch setting. Rather, the women actively found other means, gender products, to represent their femininity to others. They also actively protected their ability to ensure that the gender products that represented them were of high enough quality to represent them well. These women were not passive receivers of the social world around them; they played large parts in creating and reproducing that social world.

While Washington farm and ranch women provide the context for this particular study, it is likely (although in need of empirical examination) that many of the findings reported here can be extrapolated to other populations. Women from all walks of society are held accountable for doing gender "appropriately" (West and Zimmerman 1987) and thus likely also experience the

consequences on those occasions when they cannot live up to the standard of “emphasized femininity,” whether they consciously endorse this standard or not. It is also likely that as more women enter the labor force and gain access to what have previously been primarily male occupations, more and more women will find themselves in situations where their ability to do gender through traditional methods is challenged by the demands of their occupations (i.e., where they face contradictory accountabilities). We might expect these women to turn to other means to display their gender, such as through gender products. An increasing reliance on gender products to do gender suggests that gender will continue to be closely tied to class, as those with more resources will be better equipped to ensure that their products represent them well.

Finally, these results suggest that real change in the area of gender expectations is very slow in coming. While more versions of femininity may be apparent now than say 50 to 60 years ago (Connell 1987), the evidence in this study suggest strongly that emphasized femininity is still the standard to which women are held. Even women who denounced this version of femininity and persistently offered an alternative version that might be considered more “contemporary” ultimately felt accountable to it and they held others accountable to it as well. While other versions of femininity such as “capable femininity” may be growing in popularity, emphasized femininity seems to be firmly perched atop the femininity hierarchy for the time being.

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APPENDIX A: INTERVIEW MATERIALS

**WASHINGTON STATE UNIVERSITY
CONSENT FORM
GENDER IN AGRICULTURE DISSERTATION INTERVIEW**

Researcher: Jolene D. Smyth, Ph.D. Candidate, Sociology, 509-594-6467, jsmyth@wsu.edu
Dissertation Chair: Monica Johnson, Assistant Professor, Sociology, 509-335-8773, monicakj@wsu.edu

The purpose of this form is to give you the information you will need to make an informed decision about participating in this study. Please read the form carefully and ask any questions you have about the research before consenting to participate.

PURPOSE AND BENEFITS OF THE STUDY

The purpose of this study is to find out how men and women in agriculture in Washington State experience the challenges and benefits of farm life. Potential benefits of the research include better understandings of farm families, farm lifestyles, men and women's roles, and the challenges of farming for men, women, and their families. The final research report will be shared freely with all participants.

YOUR ROLE IN THE STUDY

Your role in the study is to participate in a one-on-one interview with the researcher that is expected to last between one to three hours. You will be asked about your experiences and opinions on a range of topics including descriptions of you and your farm operation, farm work and employment, family relationships, decision making, and leisure activities. About 60 individuals (30 women and 30 men) will participate in this study.

Should you agree to participate, you have the right to skip any questions that you do not wish to answer and/or to terminate your participation in the study at any point without penalty.

With your permission, interviews will be digitally recorded to ensure that your responses are accurately documented. However, your responses will be confidential. To protect your confidentiality, the recordings will be stored in password protected computer files to which only the researcher and dissertation committee will have access. Additionally, any potentially identifying information will be omitted or altered in all written reports.

POTENTIAL RISKS

It is possible that you will experience stress in the interview process and/or emotional reactions to interview topics or questions. If this should happen to you, please remember that you have the right to skip questions and/or to terminate your participation in the interview without penalty. This project has been reviewed and approved by the WSU Institutional Review Board.

SUBJECT'S STATEMENT

This study has been explained to me and by signing below I volunteer to take part in this research. I understand that I can direct general questions about the research to one of the researchers listed above. If I have any questions about my rights as a participant, I can contact the WSU Institutional Review Board at (509)335-7951 or irb@wsu.edu. By signing below I also acknowledge that I have received a copy of this consent form for my own records.

Printed Name of Subject

Signature of Subject

Date

I give the researcher permission to audio record my interview to ensure that my statements are accurately documented.

Printed Name of Subject

Signature of Subject

Date

INTERVIEW SCHEDULE

Demographic Questions:

- When were you born? Age?
- What is your highest level of education?
- Number, age, and sex of all children?
- Household roster (Who all lives here? Age, Sex, and Education for each person?)
- Religion? How active?

History:

- Did you grow up on a farm?
- When you were growing up what did you picture yourself doing as an adult?
- How did you end up on this farm?

The Farm Operation:

- How many acres is this farm?
- Approximately how many acres are owned and how many are leased?
- What crops do you grow?
- What livestock do you raise?
- Are there any parents or in-laws involved in the farm operation? How are they involved? How has that experience been?

Employment:

- Do you or your spouse have a job off the farm? What is it? When started? Why work off farm? How have things changed since getting that job?
- If nobody works off farm, how have you avoided this situation?

Day to Day Operation:

- What times do you usually start and end your day?
- What roles do you see yourself playing in the farm operation?
- What does a typical day look like for you?
- What roles do you see your spouse/partner playing in the farm operations?
- What does a typical day look like for your spouse?
- What types of work do you enjoy most? Why?
- What types are you particularly not fond of? Why?
- What percent of your time do you think you devote to each of farm work, housework, and childcare?

- What percent of your spouse's time do think is devoted to each of farm work, housework, and childcare?
- If your spouse were not here, how well do you think you could run the farm? What parts do you think you would have trouble with and why? What do you think your spouse would say about your ability to run the place?
- If you were not here, how well do you think your spouse could run the farm? What parts do you think (he/she) would have trouble with? What do you think your spouse would say about (his/her) ability to run the place?
- How much do you feel like the work you do here is recognized and appreciated? What do you think goes unnoticed?
- During the times when your spouse is away from the farm for more than a day, how do your routines change? How do you feel about these times? What do you like and dislike?
- How about when you are away, how do things change for your spouse/partner?
- What do you think would happen if (you/your spouse) tried to take more control over the day-to-day operations on the farm? Why?
- What would happen if (you/your spouse) tried to take more control over the day-to-day management of the household and family? Why?

Farm Management:

- How do you make major farm decisions? How much influence do you think you have?
- How do you make day-to-day farm decisions? Influence?
- How do you make large household decisions? Influence?
- How are day-to-day household decisions made? Influence?
- How have you decided how the children would be raised? Influence?
- Who usually organizes for help with farm tasks (such as harvest or vaccinations)?

The Farm Lifestyle:

- How do you feel about being a (woman/man) on a farm?
- In what ways do you think your life differs from the lives of non-farm (women/men).
- What are the benefits and costs of farm life for (women/men)?
- What image do you think the average person has of life on the farm? How realistic is it?
- What about farming draws (you/your spouse) to it?
- How do you think farm families compare to non-farm families?

Family Ideology and Experiences:

- In your opinion, what makes an ideal (wife/husband)? How do you think you fit that ideal? How does being on a farm affect (your/your spouse's) ability to fit that ideal?
- What do you think your spouse would say makes an ideal (wife/husband)? How would (he/she) say (you/he/she) fit(s) that ideal? How does (your/his/her) being on a farm affect (your/his/her) ability to fit that ideal?
- If your spouse could change one thing about you what do you think (he/she) would change?
- If you could change things about your spouse, what would you change?
- What, in your opinion makes a good (mother/father)? How do you think (you/your spouse) fit(s) or doesn't fit that model? Why?
- Who usually organizes family gatherings or activities?
- Who usually organizes social gatherings or activities?
- What makes a group of people a "family" in your opinion?
- What do you think are the particular strengths of your family? What are its weaknesses?

Childrearing:

- How does being on a farm help you to raise your children? Hinder you?

- What are the benefits and drawbacks for the kids of being raised on the farm? Does it differ for boys and girls?
- Are there any jobs on the farm that you think are not appropriate for your (son/daughter)? Why are they inappropriate?
- Do you and spouse agree or disagree about the appropriateness of types of work for your kids? How?
- Do you want your children to live on the farm when they grow up? Why?

Leisure Activities:

- When you take time out just for yourself, what do you do? How does it make you feel?
- If you don't take time out, why not? What would you do if you were to take time off? Why?
- When your spouse takes time out, what does (he/she) do? Why?

Gender Ideology/Pressure:

- Where on the femininity/masculinity continuum would you place yourself? Why? Is this different than where you think you should be ideally? How? To you, what does it mean to be completely feminine? And masculine?
- Do you and your spouse ever discuss (your/his/her) appearance (dress, makeup, hair, etc.)? How do those discussions usually go?
- Do you like to shop or dislike it? Who buys your clothes, kids' clothes, spouse's clothes?
- How about your kids, do they ever comment on (your/your spouse's) appearance? What do they say?
- How do you think men in general feel about women do regularly do male-type work? Do the men in your family generally feel this way or do they think differently? How? How about you personally?
- How do you think women in general feel about men who regularly do female-typed work? Do the women in your family tend to feel this way or do they think

differently? How? How about you personally?

- Do you think families work best when everyone pitches in with all types of work or when the men specialize in some types of work and the women in others? Why?

Family Relationships:

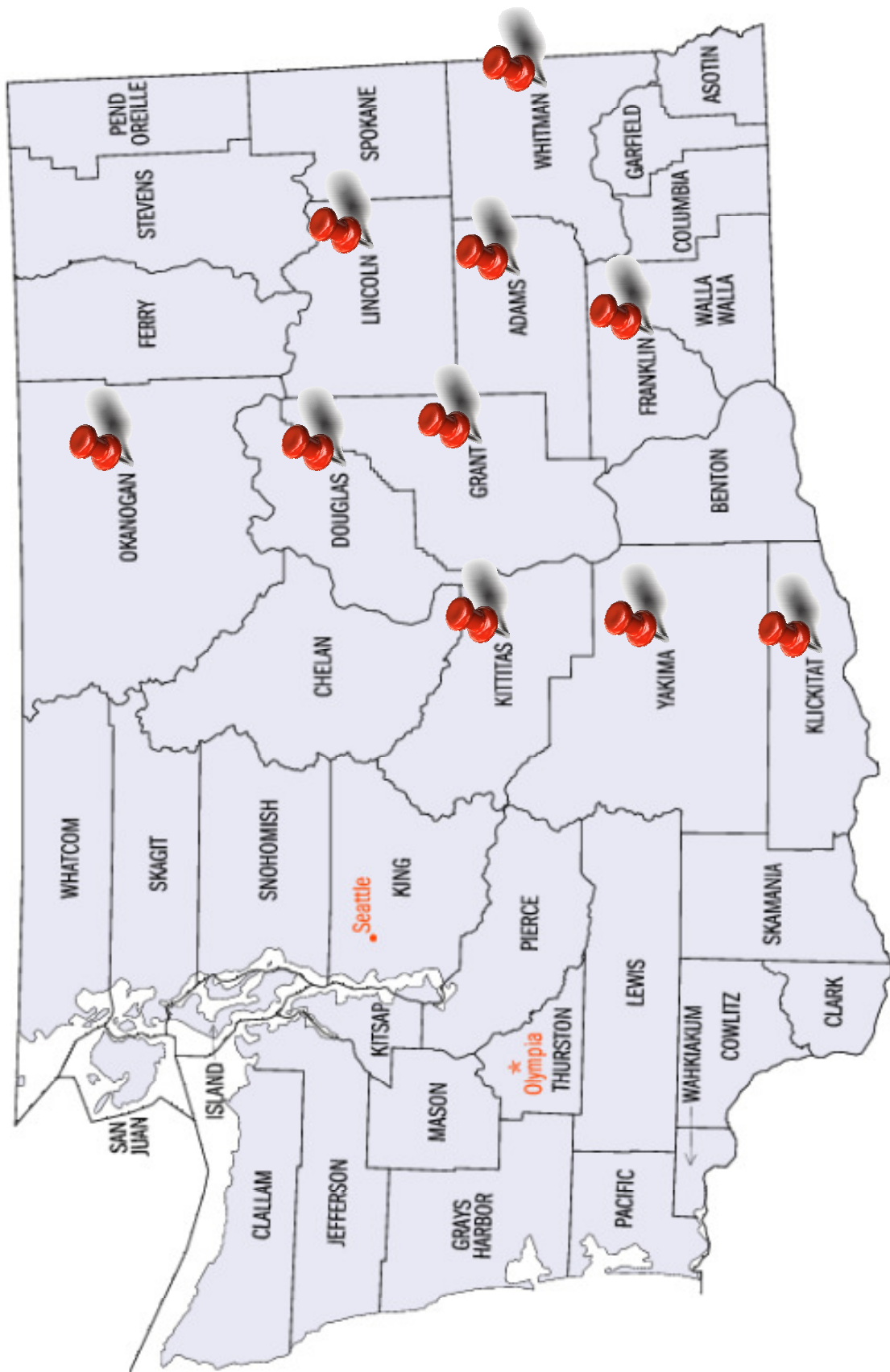
- What types of things do you and your spouse argue or fight about? How do you usually settle these issues?
- How do you show your spouse that you love (him/her)?
- How does (he/she) show you that (he/she) loves you?
- Do you ever purposely do things to let (him/her) feel like a better (man/woman)? What?
- Does (he/she) ever do things to let you know that you are a good (woman/man)? What? What else could (he/she) do to make you feel like a better (man/woman)? Why would this make a difference?

Gender Self-Perception Scale*



* The length of the scale has been shortened from 9 to 6 inches to meet the requirements of dissertation formatting. The original scale appeared on a horizontally oriented blank page.

Washington Counties Where Interviews Were Conducted



APPENDIX B: SURVEY MATERIALS

Questionnaire

Family Farming and Ranching in Washington: A Woman's Perspective



An effort to understand how Washington women contribute to their family farms and ranches in changing times.

We appreciate your help.

Jolene D. Smyth, Study Coordinator
The Social and Economic Sciences Research Center
Washington State University
Pullman, WA 99164-4014
(509) 335-1511
jsmyth@wsu.edu

Section 1

1. Over your entire life, how many years have you lived or worked on a farm/ranch?

_____ Number of years on farm/ranch

2. What year did you come to this farm/ranch?

_____ Year

3. How many acres of the farm/ranch are owned and how many are leased or rented? If none, please enter zero.

_____ Number of acres owned

_____ Number of acres leased or rented

4. Is your name included on the deed(s) and Lease(s)?

Deed(s): Yes No Does not apply

Lease(s): Yes No Does not apply

5. Please list the top three commodities (type of crop or livestock) produced on your farm/ranch and for each record the average number of acres/head raised per year and what percent is marketed (i.e., sold rather than used on the farm/ranch).

<u>Commodity</u>	<u>Acres/ Head Raised</u>	<u>Percent Marketed</u>
1: _____	_____	_____
2: _____	_____	_____
3: _____	_____	_____

6. Who are the primary farm/ranch operators? Please list them by relationship to you (e.g., yourself, husband, father, sister in-law, friend, neighbor, etc.).

7. Excluding those you just listed in #6 and your children, please list by relationship to you any other relatives who work on the farm/ranch and indicate whether they work once in a while or year round. By relatives we mean your husband, parents, siblings, in-laws, nieces, nephews, grandchildren, etc.

<u>Relationship to You</u>	<u>Once in Awhile</u>	<u>Year Round</u>
1: _____	<input type="checkbox"/>	<input type="checkbox"/>
2: _____	<input type="checkbox"/>	<input type="checkbox"/>
3: _____	<input type="checkbox"/>	<input type="checkbox"/>
4: _____	<input type="checkbox"/>	<input type="checkbox"/>
5: _____	<input type="checkbox"/>	<input type="checkbox"/>
6: _____	<input type="checkbox"/>	<input type="checkbox"/>
7: _____	<input type="checkbox"/>	<input type="checkbox"/>

8. How many people who are not related to you are hired to work on the farm/ranch once in awhile and how many are hired year round? If none, enter zero.

_____ Number hired to work once in awhile

_____ Number hired year round

Section 2

9. Please indicate whether or not each of the following does or does not describe you.

- | Yes | No | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Independent agricultural producer – I manage the farm/ranch pretty much single handedly. |
| <input type="checkbox"/> | <input type="checkbox"/> | Full agricultural partner – I share equally in all aspects of work and decision making. |
| <input type="checkbox"/> | <input type="checkbox"/> | Business manager – I do bookkeeping, information gathering, and financial records. |
| <input type="checkbox"/> | <input type="checkbox"/> | Agricultural helper – I participate in agricultural production mainly during busy times. |
| <input type="checkbox"/> | <input type="checkbox"/> | Farm/ranch homemaker – I run errands and do traditional homemaking chores. |
| <input type="checkbox"/> | <input type="checkbox"/> | Farm/ranch financial supporter – I provide financial support through off-farm employment. |

10. Which one of the roles listed in the previous question is your primary role on the farm/ranch?

11. Please indicate whether you regularly, occasionally, or never do each type of work listed below. If a type of work is not done on your farm/ranch, please mark Does Not Apply and continue to the next type.

Type of Work	Does Not Apply	How often do you do each job?			Would you prefer doing each job...		
		Reg.	Occ.	Never	Less	Same	More
Plowing, disking, planting or harvesting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Applying fertilizers, herbicides, or insecticides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving large trucks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Doing fieldwork without machinery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Caring for horses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Doing farm/ranch work with horses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Checking cattle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calving/pulling calves	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feeding cattle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vaccinating cattle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Branding, dehorning, or castrating cattle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Running farm/ranch errands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fixing or maintaining equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Making major equipment purchases	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bookkeeping, records, finances, or taxes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supervising the farm/ranch work of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Caring for garden or animals for family use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Caring for children or elderly family members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working on another family/in-home business	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



12. Now, if you haven't already done so, please return to the list of jobs above and indicate in the right hand columns whether you prefer to do each job less, the same amount, or more than you currently do.

13. Please indicate whether you have a little, some, or a lot of influence in decisions about each of the following. If a type of decision is not made on your farm/ranch please mark Does Not Apply.

	Does Not Apply	How much influence do you have now?			How much influence would you prefer to have?		
		Little	Some	A Lot	Less	Same	More
Buying, selling, leasing land/cattle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buying major household appliances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Buying major farm/ranch equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What brand/type of equipment to buy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What type of crop/livestock to produce	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marketing (e.g., timing, price, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trying new production practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Taking off-farm employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Deciding children's activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hosting/visiting friends/relatives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Making household repairs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



14. If you haven't already done so, please return to the list of topics above and indicate in the right hand columns whether you want less, the same amount, or more influence than you currently have in each type of decision that is made on your farm/ranch.

15. Who in your family has primary responsibility for each of the following household tasks?

	Me	My Spouse/Partner	Both of Us Equally	Other (Specify)
Grocery shopping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cooking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Dishes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Laundry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Taking out garbage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Cleaning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Clothing shopping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Caring for the yard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

16. Farm and ranch families are often asked to fill out a number of questionnaires about their operations every year. When you get such questionnaires from USDA, agricultural organizations, or other sources that ask about agricultural production, prices, and expenses, which person in your family usually fills them out?

- Yourself
- Your spouse/partner
- Both of you
- Other (specify) _____

Section 3

17. What is your current marital status?

- Married
 - Living together, unmarried
 - Separated
 - Divorced
 - Widowed
 - Never married
- Skip to question #22

18. In what month and year did you marry your spouse or move in with your current partner?

_____ Month _____ Year

19. Taking all things together, how would you describe your marriage/partnership?

- Very happy
- Somewhat happy
- Neither happy nor unhappy
- Somewhat unhappy
- Very unhappy

20. How well do you think you could run the farm/ranch without your spouse/partner?

- Very Well
- Well
- Not Well
- Not at All

21. While growing up did your spouse/partner live mostly on a farm/ranch or mostly elsewhere?

- Farm/Ranch
- Elsewhere

22. While growing up did you live mostly on a farm/ranch or mostly elsewhere?

- Farm/Ranch
- Elsewhere

23. In your opinion, to what extent is being a farm/ranch woman similar to or different from being a non-farm/ranch woman?

- Very similar
- Somewhat similar
- Somewhat different
- Very different

24. How is being a farm/ranch woman similar or dissimilar from being a non-farm/ranch woman?

25. Compared to women you know who are not from farms or ranches, do you feel...

- More feminine
- About the same
- Less feminine

Section 4

More and more often farm and ranch families have to consider off-farm employment, but very little is known about how such decisions are made. The next set of questions addresses these issues. If you are married or living with a partner in a relationship similar to marriage, please answer these questions for both yourself and your spouse/partner. If you are not married or living with a partner, please answer only for yourself.

26. Did you and/or your spouse/partner have any non-farm jobs prior to being on this farm/ranch?

You: Yes No

Spouse/Partner: Yes No

27. Since coming to this farm/ranch, which of the following best describes your and/or your spouse/partner's employment in off-farm jobs. Please consider both full and part time jobs.

	<u>You</u>		<u>Spouse/Partner</u>	
Currently employed off-farm	<input type="checkbox"/>	}	<input type="checkbox"/>	}
Employed off-farm in the past year	<input type="checkbox"/>		<input type="checkbox"/>	
Employed off-farm in past 5 years	<input type="checkbox"/>		<input type="checkbox"/>	
Employed off-farm over 5 years ago	<input type="checkbox"/>		<input type="checkbox"/>	
Never been employed off-farm	<input type="checkbox"/>		<input type="checkbox"/>	

If one or both of you is currently or has been employed off-farm in the past 5 years, please continue with question #28. Otherwise, skip to #31.

28. Please indicate whether or not each of the following describes why you and/or your spouse/partner currently work or have worked off the farm/ranch in the past 5 years.

	<u>You</u>		<u>Spouse/Partner</u>	
	<u>Yes</u>	<u>No</u>	<u>Yes</u>	<u>No</u>
Family needed the money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To be around other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To get away from the farm/ranch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To earn personal income	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To gain independence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For the challenge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To get health insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
For retirement benefits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

29. In an average week in your and/or your spouse/partner's current or most recent off-farm job, how many hours did you/he work?

	<u>You</u>	<u>Spouse/Partner</u>
Hours/Week	_____	_____

30. What was your and/or your spouse/partner's current or most recent off-farm job?

You: _____

Spouse/Partner: _____

→ Please skip to #32.

31. If either you and/or your spouse/partner do not currently work off-farm and haven't in the past 5 years, please indicate whether or not each of the following reasons describes why.

	You		Spouse/Partner	
	Yes	No	Yes	No
Needed on the farm/ranch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Needed at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wasn't satisfied with the job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was laid off or fired	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Don't need the money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cannot find a job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Retired	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Disabled or otherwise unable to work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. On average days during the farm/ranch busy season and off season, how many hours do you and/or your spouse/partner spend on each of the following activities? Please give us your best estimate.

	You		Spouse/Partner	
	Busy Season	Off Season	Busy Season	Off Season
Farm/ranch work	____ hrs.	____ hrs.	____ hrs.	____ hrs.
Off-farm employment	____ hrs.	____ hrs.	____ hrs.	____ hrs.
Housework	____ hrs.	____ hrs.	____ hrs.	____ hrs.
Childcare	____ hrs.	____ hrs.	____ hrs.	____ hrs.

33. If you could choose, which one of the following work arrangements would you prefer?

- Only I work off-farm
- Only my spouse/partner works off-farm
- We both work off-farm
- Neither of us works off-farm

Section 5

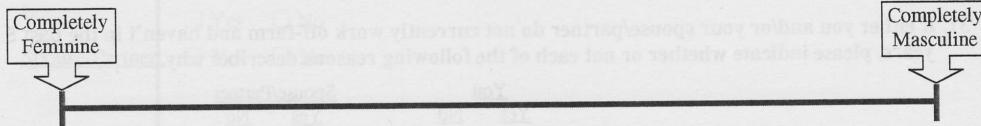
34. Below is a line with completely feminine at one end and completely masculine at the other. We are going to ask you to place a couple of people on the line.

First, put an A above the line where you think you land.

Second, put a B above the line where you think our society's ideal woman would be.

Third, if you have a spouse/partner, put a C below the line where you think he lands.

Finally, put a D below the line where you think our society's ideal man would be.



35. Compared to how you currently are, would you like to be...

- A lot more feminine
- A little more feminine
- About the same
- A little less feminine
- A lot less feminine

36. In talking to farm/ranch women across the state I have found that they vary widely in how much effort they put into achieving different goals. How much effort do you put into achieving each of the following?

	A Lot of Effort	Some Effort	A Little Effort	No Effort
Having a well kept yard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growing a vegetable garden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growing flowers or a flower garden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having healthy appearing crops/cattle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having a clean house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having a well decorated house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting along with neighbors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being well dressed and made up <u>in public</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being well dressed and made up <u>at home</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having children appear neat in public	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving nice vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serving food that tastes good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serving food that looks good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Males in my family being masculine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Females in my family being feminine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

37. The women have also varied in how successful they feel at achieving these goals. How successful do you think you have been at achieving each of the following?

	Very Successful	Somewhat Successful	Slightly Successful	Not at all Successful
Having a well kept yard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growing a vegetable garden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Growing flowers or a flower garden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having healthy appearing crops/cattle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having a clean house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having a well decorated house	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Getting along with neighbors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being well dressed and made up <u>in public</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Being well dressed and made up <u>at home</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having children appear neat in public	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving nice vehicles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serving food that tastes good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Serving food that looks good	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Males in my family being masculine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Females in my family being feminine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

38. How satisfied or dissatisfied are you with farming/ranching as a way to make a living?

- Very Satisfied
- Somewhat Satisfied
- Neutral
- Somewhat Dissatisfied
- Very Dissatisfied

39. How satisfied or dissatisfied are you with farming/ranching as a way of life?

- Very Satisfied
- Somewhat Satisfied
- Neutral
- Somewhat Dissatisfied
- Very Dissatisfied

40. How satisfied or dissatisfied are you with farming/ranching as a way to raise children?

- Very Satisfied
- Somewhat Satisfied
- Neutral
- Somewhat Dissatisfied
- Very Dissatisfied
- Does Not Apply

Section 6

41. Taking all things together, how would you say things are these days?

- Very happy
- Somewhat happy
- Neither happy nor unhappy
- Somewhat unhappy
- Very unhappy

42. Compared to other people your age, how would you describe your physical health?

- Excellent
- Good
- Fair
- Poor
- Very Poor

43. Please indicate to what extent you agree or disagree with the following statements.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I am a person of worth at least on an equal basis with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sometimes I feel that I am being pushed around in life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At times I think I'm no good at all.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I wish I could have more respect for myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can do just about anything I really set my mind to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
On the whole, I am satisfied with myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have little control over the things that happen to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What happens to me in the future mostly depends on me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I certainly feel useless at times.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that I have a number of good qualities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There is really no way I can solve some problems I have.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often feel helpless in dealing with the problems of life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

44. On how many days during the past week did you experience each of the following? Please enter a number from 0 to 7 in each box.

<input type="checkbox"/> Feel bothered by things that usually don't bother you?	<input type="checkbox"/> Feel fearful?
<input type="checkbox"/> Not feel like eating; appetite was poor?	<input type="checkbox"/> Sleep restlessly?
<input type="checkbox"/> Feel that you could not shake off the blues even with help from your family or friends?	<input type="checkbox"/> Talk less than usual?
<input type="checkbox"/> Have trouble keeping your mind on what you were doing?	<input type="checkbox"/> Feel lonely?
<input type="checkbox"/> Feel depressed?	<input type="checkbox"/> Feel sad?
<input type="checkbox"/> Feel that everything you did was an effort?	<input type="checkbox"/> Feel you could not get going?

45. Please indicate how much you feel appreciated for each of the following types of work you do.

	Fully Appreciated	Somewhat Appreciated	Slightly Appreciated	Not at all Appreciated	Does not Apply
Farm/ranch work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Housework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Childcare	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Off-Farm Employment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

46. Please indicate how successful you consider each of the following to be:

	Very Successful	Somewhat Successful	Slightly Successful	Not at all Successful	Does not Apply
Yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your spouse/partner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The farm/ranch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your family as a whole	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 7

47. What is your birth date?

MM/DD/YYYY

48. What is your religious preference?

49. Please tell us the sex and age of each of your children and whether or not each is involved in the daily operation of the farm/ranch. It may help to start with each child's initials on a row.

Child's Initials	Sex?		Age?	Involved in Daily Operation?	
	M	F		Yes	No
1. _____	<input type="checkbox"/>	<input type="checkbox"/>	____ yrs.	<input type="checkbox"/>	<input type="checkbox"/>
2. _____	<input type="checkbox"/>	<input type="checkbox"/>	____ yrs.	<input type="checkbox"/>	<input type="checkbox"/>
3. _____	<input type="checkbox"/>	<input type="checkbox"/>	____ yrs.	<input type="checkbox"/>	<input type="checkbox"/>
4. _____	<input type="checkbox"/>	<input type="checkbox"/>	____ yrs.	<input type="checkbox"/>	<input type="checkbox"/>
5. _____	<input type="checkbox"/>	<input type="checkbox"/>	____ yrs.	<input type="checkbox"/>	<input type="checkbox"/>
6. _____	<input type="checkbox"/>	<input type="checkbox"/>	____ yrs.	<input type="checkbox"/>	<input type="checkbox"/>

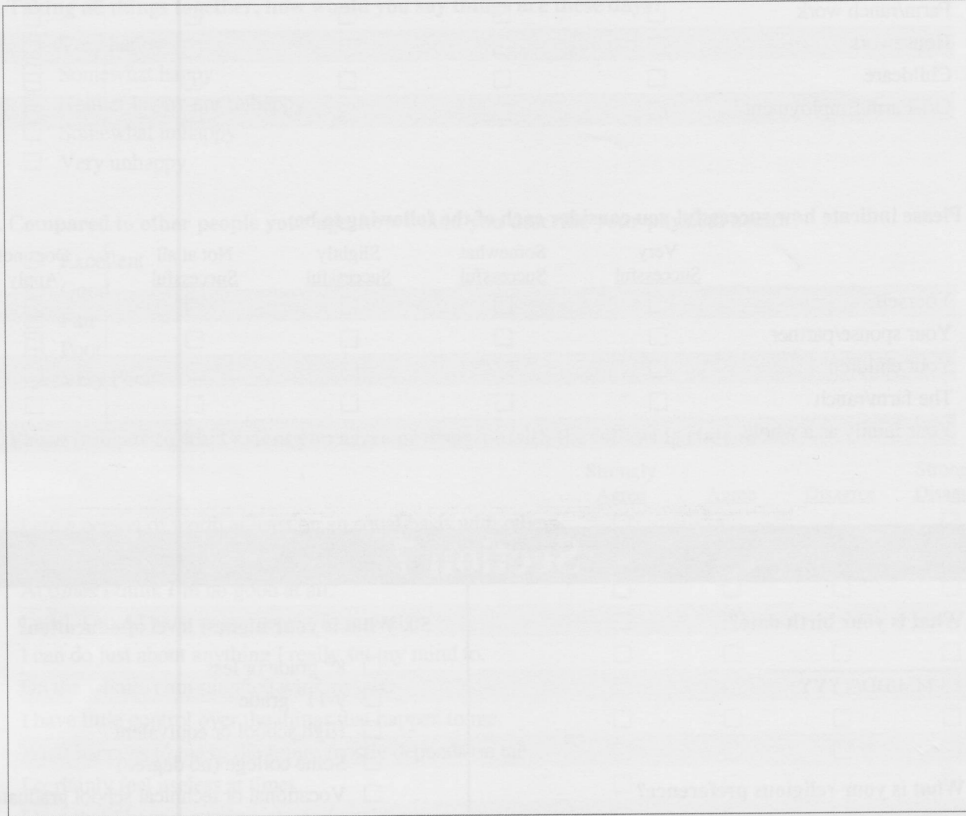
50. What is your highest level of education?

- 8th grade or less
- 9-11th grade
- High school or equivalent
- Some college (no degree)
- Vocational or technical school graduate
- Associates degree (A.A.)
- College graduate (B.S., B.A., etc.)
- Post-graduate training

51. In 2005, what was your total net (i.e., after farm/ranch expenses) family income from all sources, before taxes?

- Less than \$19,999
- \$20,000 to \$39,999
- \$40,000 to \$59,999
- \$60,000 to \$79,999
- \$80,000 to \$99,999
- \$100,000 or more

52. If you have any additional comments, thoughts, or opinions about being a woman on a family farm or ranch, please write them in the space below.



Thank you for your help!

Please return your completed questionnaire in the enclosed envelope. If the envelope has been misplaced, please mail the questionnaire to:

**Jolene D. Smyth, Study Coordinator
The Social and Economic Sciences Resource Center
Washington State University
Pullman, WA 99164-4014**

Initial Contact Cover Letter (Printed on WSU Stationary)

October 2, 2006

I am writing to ask for your help in a study of women's experiences on family farms and ranches in the state of Washington. Over the last year I have had the good fortune to travel around the state and talk to farm and ranch women about their experiences. I have found that some are very involved in their operations and others are not. Some love farming and ranching and others are quite dissatisfied with it. This survey is an effort to learn more about how women across the state experience farming and ranching.

The only way we can learn about women's experiences is by asking them so I am writing to ask the primary adult female (age 18 or over) in your household to share her thoughts and experiences by filling out the enclosed questionnaire which will take approximately 30 minutes. If I have made an error and there is no adult female in the household, I would be grateful if you could note this on the front page and return the unfinished survey to me in the enclosed envelope.

This survey is voluntary, confidential, and poses minimal risk to participants. The Washington Field Office of the United States Department of Agriculture National Agricultural Statistics Service (USDA-NASS) is supporting this project by handling the addressing and mailing of this survey packet. To protect your confidentiality, the researchers at Washington State University do not have your name or any other identifying information about you. However, the answers you provide are not being collected for or by USDA-NASS; your completed survey will be returned to the researchers at WSU.

If you have any questions or comments about this study, I would be happy to talk with you. You can reach me toll free at 1-800-833-0867 or you can write to me at the address on the letterhead or e-mail me at: jsmyth@wsu.edu. This project has been reviewed and approved by the Washington State University Institutional Review Board (IRB). If you have any questions concerning your rights as a participant in this project, you can reach the IRB coordinator at 509-335-9661.

By taking a few minutes to share your experiences and opinions about farming and ranching you will be helping out a great deal. I have enclosed a small token of appreciation as a way of saying thanks for helping us understand farm and ranch women's experiences. I hope that you enjoy the survey and I look forward to receiving your responses.

Sincerely,

Jolene D. Smyth, Study Coordinator

P.S. The Farm Families Support Network is an organization that provides free assistance in identifying and addressing personal, family, and farm issues among Washington's farm families. If you think you might be in need of such assistance you can reach them at 1-800-469-2981 or on the web at <http://ffsn.wsu.edu>.

Post Card Reminder

October 10, 2006

Last week I sent you a questionnaire about women's experiences and opinions on family farming and ranching in Washington. If someone in your family has already completed and returned the questionnaire, please accept my sincere thanks for being so prompt. If not, I hope that the primary adult female in your household will complete and return it as soon as possible.

Only by hearing from farm and ranch women of all types can we ensure that we are getting an accurate understanding of what it means and what it is like to be a farm or ranch woman in Washington. The success of this important project depends on our receiving responses from as many participants as possible.

I want to make sure you have the opportunity to participate. If we do not receive a response from you in the next week, a new questionnaire will be mailed to you in case yours was lost in the mail or misplaced. I hope you enjoy the survey, and I look forward to receiving your responses.

Sincerely,

Jolene D. Smyth, Study Coordinator
1-800-833-0867

133 Wilson Hall,
Washington State University,
Pullman, WA 99164-4014

Follow-Up Letter (printed on WSU stationary) with Replacement Questionnaire

October 30, 2006

In early October I mailed your family a survey about women's perspectives on family farming and ranching in Washington. This survey is the second part of an ongoing research effort that started with interviews of approximately 60 farm and ranch men and women across the state. I learned from those interviews that some women are very involved in the farm or ranch while others have little to no involvement. In both cases though women are rarely asked about their contributions or how they feel about farming and ranching. This survey is an effort to learn more about women's experiences and opinions in order to better understand the contributions that they make to their farm and ranch operations and families.

Many women have responded to the survey but my records indicate that I have not yet received a response from a woman in your family. I am writing again to ask the primary adult female (age 18 or over) in your household to share her thoughts and experiences. It is only by hearing from farm and ranch women of all types that I can be sure I am getting an accurate understanding. Your response is equally important whether you do farm or ranch work every day or very rarely to never.

If you have already returned the survey it is possible that it is still making its way back to me through the mail and I would like to thank you for your effort. But, in case you have not yet had the opportunity to respond or have misplaced the original questionnaire, I am enclosing another one along with a postage paid envelope that you can use to return it. If I have made an error and there is no adult female in the household or yours is not a farm or ranch family, I would be grateful if you could let me know by noting this on the front page and returning the unfinished survey.

Your response is voluntary and completely confidential. Answers to these questions will be released only as summaries in which no individual's answers can be identified. If you have any questions about the survey you can contact me toll-free at 1-800-833-0867 or e-mail me at jsmyth@wsu.edu. I would be happy to talk with you about it.

I hope you enjoy the survey and I would like to thank you in advance for taking the time to help me better understand Washington's farm and ranch families by completing it.

Sincerely,

Jolene D. Smyth, Study Coordinator

APPENDIX C: SUPPLEMENTAL ANALYSES

Constructing Task-Type Involvement Scales

The involvement scales for 1) working with livestock, 2) working with horses, 3) fieldwork, and 4) financial work were constructed using a combination of principal components factor analysis techniques and theoretical rationale. The goal was to condense the 20 individual tasks listed in figure 2.2 into a smaller number of variables representing their common underlying factors.

The first step was to run a principle components factor analysis of the 20 tasks. The eigenvalues for the first six factors are reported in Table C1.1. Using the standard cutoff point of eigenvalues greater than one as a criteria for retaining factors results in the retention of five factors that, taken together, account for 64% of the variance of the original 20 items.

Table C1.1: Eigenvalues for Principal Components Factor Analysis of 20 Farm/Ranch Tasks

<u>Factor</u>	<u>Eigenvalue</u>	<u>Difference</u>	<u>Proportion</u>	<u>Cumulative</u>
1	6.335	3.669	0.317	0.317
2	2.666	1.131	0.133	0.450
3	1.535	0.268	0.077	0.527
4	1.267	0.227	0.063	0.590
5	1.040	0.132	0.052	0.642
6	0.908	0.110	0.045	0.688

The rotated factor loadings are displayed in Table C1.2. This table is organized around the factors that arose out of this analysis. The criteria that was used for keeping a variable in a factor is that it's rotated factor loading had to be greater than .5. Loadings that did not meet this criterion are crossed out in the table and not included in the final scales that represent the factors. In addition, the fifth factor is dropped altogether because the variables in it that meet the factor loading criterion are not necessarily farm or ranch tasks as is intended in the analyses.

Table C1.2: Rotated (promax) Factor Loadings for Principal Components Factor Analysis of 20 Farm/Ranch Tasks

<u>Variable</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>	<u>Factor 4</u>	<u>Factor 5</u>	<u>Uniqueness</u>
Checking cattle	0.962	-0.114	0.012	-0.003	0.032	0.107
Calving/pulling calves	0.926	0.027	0.040	-0.052	0.017	0.135
Feeding cattle	0.956	-0.049	0.008	-0.008	0.016	0.107
Vaccinating cattle	0.889	0.002	0.079	0.018	0.004	0.146
Branding, dehorning, or castrating cattle	0.849	0.094	0.131	-0.051	-0.025	0.181
Plowing, disking, planting, or harvesting	0.033	0.899	-0.088	-0.123	-0.022	0.312
Applying fertilizers, herbicides, or insecticides	0.226	0.576	-0.200	0.127	-0.068	0.509
Driving large trucks	-0.264	0.786	0.146	-0.082	0.101	0.376
Doing fieldwork without machinery	0.093	0.624	-0.110	-0.019	0.115	0.572
Caring for horses	0.122	-0.069	0.829	0.066	0.002	0.238
Doing farm/ranch work with horses	0.158	-0.036	0.853	-0.021	-0.008	0.199
Working on another family/in-home business	-0.086	0.073	0.402	-0.052	0.252	0.736
Fixing or maintaining equipment	0.142	0.362	0.077	0.420	-0.217	0.460
Making major equipment purchases	0.008	0.085	0.122	0.750	-0.122	0.349
Marketing products	-0.115	0.069	0.096	0.735	0.026	0.408
Bookkeeping, records, finances, or taxes	-0.013	-0.306	-0.163	0.862	0.140	0.386
Supervising the farm/ranch work of others	-0.101	0.296	0.174	0.389	0.057	0.578
Running farm/ranch errands	0.176	0.130	-0.182	0.276	0.442	0.537
Caring for garden or animals for family use	0.143	-0.030	0.016	0.012	0.712	0.439
Caring for children or elderly family members	-0.087	0.043	0.040	-0.030	0.784	0.382

The final result is four factors comprised of 14 farm/ranch task variables. Another factor analysis (Tables C1.3 and C1.4) confirms that when the six eliminated tasks are taken out, the remaining 14 still load strongly on the same four factors. These four factors explain 73 percent of the variation in the 14 tasks. Based on these results, the four scales were generated by taking the mean value of the items within the scale.

Table C1.3: Eigenvalues for Principal Components Factor Analysis of 14 Farm/Ranch Tasks

<u>Factor</u>	<u>Eigenvalue</u>	<u>Difference</u>	<u>Proportion</u>	<u>Cumulative</u>
1	5.499	3.244	0.393	0.393
2	2.256	0.933	0.161	0.554
3	1.323	0.192	0.095	0.648
4	1.130	0.401	0.081	0.729
5	0.730	0.061	0.052	0.781
6	0.668	0.046	0.048	0.829

Table C1.4: Rotated (promax) Factor Loadings for Principal Components Factor Analysis of 14 Farm/Ranch Tasks

<u>Variable</u>	<u>Factor 1</u>	<u>Factor 2</u>	<u>Factor 3</u>	<u>Factor 4</u>	<u>Uniqueness</u>
Checking cattle	0.965	-0.115	0.003	0.006	0.106
Calving/pulling calves	0.923	0.020	0.034	-0.024	0.130
Feeding cattle	0.960	-0.054	-0.011	0.002	0.107
Vaccinating cattle	0.892	0.005	0.070	0.022	0.143
Branding, dehorning, or castrating cattle	0.848	0.084	0.117	-0.035	0.177
Plowing, disking, planting or harvesting	0.048	0.859	-0.054	-0.076	0.303
Applying fertilizers, herbicides, or insecticides	0.286	0.552	-0.228	0.082	0.523
Driving large trucks	-0.286	0.799	0.217	-0.021	0.332
Doing fieldwork without machinery	0.089	0.612	-0.074	0.074	0.562
Caring for horses	0.090	-0.013	0.865	0.040	0.181
Doing farm/ranch work with horses	0.116	0.022	0.869	-0.023	0.164
Making major equipment purchases	0.048	0.130	0.099	0.682	0.378
Marketing products	-0.086	0.144	0.103	0.749	0.332
Bookkeeping, records, finances, or taxes	0.018	-0.208	-0.124	0.868	0.354