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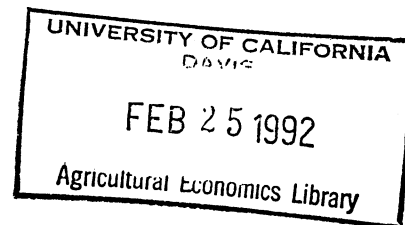
1991 AAEA Selected Paper Submission Sheet

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Paper Title: The Effect of Off-Farm Employment and Stage in the Life Cycle on the Woman's Role in Farm Task Participation and Decision Making

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Key Words Indicate by number, in order of importance:

First: 12 Second: _____ Third: _____

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|----------------------------|----------------------------------|------------------------------|
| 01-marketing | 15-food safety | 29-CGE models |
| 02-price analysis | 16-regulation | 30-political economy |
| 03-market structure | 17-law | 31-policy |
| 04-finance | 18-biotechnology | 32-international development |
| 05-credit | 19-welfare economics | 33-international trade |
| 06-futures & options | 20-environmental economics | 34-risk |
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| 09-production | 23-energy | 37-experimental economics |
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| 11-sustainable agriculture | 25-forestry | 39-mathematical programming |
| 12-management | 26-resource economics | 40-teaching |
| 13-land valuation | 27-regional economics | 41-extension |
| 14-demand analysis | 28-community & rural development | |

99-other: _____

Paper Abstract (50 words or less):

In this paper, we investigated the womans' role in farm task participation and decision making based on stage of the lifecycle and off farm employment status. The results from the 1990 South Dakota Farm Woman survey are analyzed to determine the womans' role and suggests possible reasons for the variation.

AAEA 1991

1991
Women in agriculture

**The Effect of Off farm Employment and
Stage In The Life Cycle On The Woman's Role
In Farm Task Participation and Decision Making**

By,

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and

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Abstract

In this paper, we investigate the womans' role in farm task participation and decision making based on stage of the lifecycle and off farm employment status. The results from the 1990 South Dakota Farm Woman survey are analyzed to determine the womans' role and suggests possible reasons for the variation.

Introduction

American agriculture has become one of the most competitive industries in the nation. Increases in technology have required farm managers to make a variety of choices and decisions that were previous unavailable or had little negative consequences of wrong choice. Farm management has become increasingly complex.

Farm families now share day to day in the management of the operation. Farm women have become more involved in areas of management that were formerly held by the primary manager. These areas may include marketing, book keeping, keeping livestock and crop production records, financial analysis and deciding cropping patterns.

Despite the interest in the changing economic roles of women in the United States, relatively little is known about the contemporary farm woman and her participation in agricultural production (Ross, 1985). Godwin found that three-fourths of today's externally employed farm women participate in a triad of roles: (a) paid employee off the farm, (b) farm producer, doing at least one farm task regularly, and (c) household producer, caring for children and home (Godwin, 1988).

Literature has pointed to a growing need to better understand the woman's role in agricultural production and management. Women have proven to be a vital link to the family and farm, yet the woman's contribution to the farm and family is only beginning to be studied and understood.

In 1990, South Dakota State University conducted a research project to better understand the woman's role in farm task participation and decision making. The overall objective of this research project was to gain an in-depth understanding of the woman's role in farm task participation and decision making on South Dakota farm and ranches. The specific objectives of the research project

were to determine if participation in farm tasks and decision making varied by geographic region, stage in the lifecycle, type of business, types of enterprises produced, and off-farm employment status.

This paper will examine the variation in farm task participation and decision making styles of farm women by stages in the lifecycle and off-farm employment status. It was hypothesized that participation was; 1) greater in the middle stage of the life cycle compared to the early and later stages, and 2) would be negatively impacted by off-farm employment.

Prior Studies

Research into the woman's role and involvement in agriculture and management is a relatively new topic. The majority of the research has been accomplished during the past ten years.

In 1988, Dr. Sharon Danes at the University of Minnesota conducted a survey to determine the characteristics of farm women and their role on the farm or ranch. The project found that women were heavily involved in both management and physical labor.

The study made two significant contributions to the study of women's participation in the farm. First, farm women employed off the farm are more involved in certain types of decisions than those farm women who are not employed off the farm. Second, the study concluded that there is an increased need for education opportunities for rural women to help them better use their resources (Dane, 1988).

In 1983, Salant profiled the role of farm resident women in the labor force, both on and off farm in the Sand-Clay Hills region of Mississippi and Tennessee. The study found that many women are not working because they want to, but rather out of economic necessity. The financial status of the farm household within the

study were significantly improved as a result of the income and benefits contributed by women in 1980. Therefore, rural women are effected by changes in the rural economy, especially when they have access to off-farm jobs (Salant, 1983).

In 1988, Godwin examined farm wives' preference for use of time in household and farm tasks, their actual time spent in these tasks, and their external employment status. The study made three important contributions to the study of women's participation in agriculture; 1) the majority of wives preferred to spend about the same amount of time they were currently spending in all household and farm tasks, 2) while there were some differences in the preferences of farm wives who were employed off the farm and those who were full-time "farm wives", the differences were only a matter of degree, and 3) age-related differences among women appear to be related to their feelings about their current allocation of time. This study makes an important contribution to the study of role strain that farm women experience in their role as a farm producer, paid employed off the farm and household producer (Godwin, 1988).

In 1979, Rosenthal and Jones, researchers for the National Opinion Research Center (NORC), conducted a nationwide survey of farm women and men. The study sought to explain the woman's involvement in, and attitudes toward, their own operations, agricultural organizations, labor market and the United States Department of Agriculture programs. The NORC report suggested, on the basis of expressed need from their findings, that special efforts be made to improve the transmission of information to farm women. This may include information programs directed specifically at farm women rather than at the farm population as a whole, to ensure that women are informed about the services and programs available to their operations (NORC, 1979).

A review of literature points to a growing interests in the woman's participation in farm tasks and decision making. This paper will examine farm task participation and decision making styles of South Dakota farm women.

Methodology

The South Dakota branch of the Agricultural Statistical Service (SDASS) was contacted to obtain a list of women living on farms and ranches in South Dakota. The SDASS listed the farms and ranches by primary operator and would not be able to provide a list of women living on farms and ranches. It was felt that utilizing their services would not ensure that the survey would be received by the farm woman.

Several additional organizations were contacted to aid in gathering a pool of farm women names, 1) South Dakota Farmers Union, 2) South Dakota Farm Bureau, and 3) The South Dakota Cooperative Extension Service. The South Dakota Farmers Union provided a list of 2,000 names of farm women across the state from their roster. The South Dakota Farm Bureau and the Cooperative Extension Service provided information in their newsletter about the research project and requested that women volunteer to participate in the research project.

A total of 1,000 surveys were mailed to a stratified (by county) random sample of farm and ranch women. Of the 1,000 mailed surveys, 314 were returned and 287 deemed useable. To accomplish the objectives, two way frequency tables were developed to allow comparisons. The dependent variables were age, off-farm employment status, size of operation, types of enterprises produced and farm/ranch business organization. This paper will examine the results of two of those dependent variables, age and employment status.

Variation by Lifecycle

The stages in the lifecycle were categorized as early, middle and later.

The stages were defined by age of the woman when the last child was born and the age of the woman when the last child would return to the farm or ranch. According to the U.S. Department of Commerce, Bureau of the Census, the average age of a woman is 28 years when the last child is born (1985). The woman is 34 years of age when the last child starts to school full time. The womans' time requirement in child care is then reduced affording a greater amount of time for farm related activities. The youngest woman participating in the survey was 20 years of age and thus the early stage of the lifecycle was defined as women between the ages of 20 and 34, inclusive.

The middle stage of the life cycle was determine by the age of the women when the last child returned to the farm. The age was determined by the age of the mother when the last child was born plus 26 years. This age would provide the child with a college education and a period of time for the child to become established on the operation. The middle stage included women between the age of 35 and 55, inclusive. The later stage of the lifecycle included women greater than 55 years of age.

Tables 1 and 2 summarize the decision making styles and farm task participation based on stage in the lifecycle. It was hypothesized that the level of participation would increase moving from the early to the middle stage and then decrease in the later stage. The results of the project do not confirm that level of participation does indeed follow this path in all areas of farm related tasks.

When regular duty and occasional duty are combined, the livestock related duties (#6-10) show a decrease as one moves across the table. Participation in livestock related tasks is highest in the early stages and at it lowest in the later stages of the lifecycle. This may in part be due not to age, but to increased capitalization and mechanization of the operation over the course of

time. As the farm becomes more mechanized, labor requirements decrease, and thus the womans' role decreases as well.

Crop related tasks (#1-5) show mixed results when regular and occasional duties are combined. Doing field work without machinery, doing field work with machinery and harvesting all showed increases moving from the early stage to the middle stage and decreases when moving from the middle stage to the later stage.

The support related farm tasks (#11 - 14) also showed mixed results. Farm book keeping was highest in the early stage and less in the middle and later stages. This may be due to the educational levels of women entering farming and ranching. This may also account for why she is performing more of the book keeping tasks.

Farm decision making is strongly a combined effort between the husband and wife. This is evident in each stage of the lifecycle. There is an increase in "someone else" making the decision in areas 5 through 10 as one moves through the lifecycle. This may be due to a shifting of responsibilities to a professional (marketing, livestock, crop, etc.) during the middle years of the lifecycle and to the next generation during the later years of the lifecycle.

Women are highly involved in farm task participation and decision making through each stage of the lifecycle. It was determined that there was no direct relationships between age and participation. Women are more highly involved in livestock related tasks early in their lives compared to later years.

Women are highly involved in decision making on the farm or ranch. There is an increase in "someone else makes the decision" in a portion of the decisions which may be attributed to a shifting of the responsibility to professionals and the next generation.

Off-Farm Employment Status

According to the Rosenfeld and Jones, 30 percent of the women were employed off the farm in 1981. In 1990 the South Dakota women's study found that 49.5 percent of the women were currently employed off the farm. The South Dakota farm women study sought to compare the level of participation in farm related tasks and decision making between women employed off the farm and women choosing not to be employed off the farm.

It was hypothesized that the level of participation in farm related tasks and decision making would be less for women working off the farm compared to women not working off the farm. Tables 3 and 4 compare participation in farm tasks and decision making between women employed off the farm and women not employed off the farm.

In general, there is a shifting from participation as a regular duty to an occasional duty in a number of the categories when employment status is compared. This was expected due to the time constraints placed on the woman.

Off-farm employment does not relinquish participation in farm related tasks. The woman is still highly involved in all areas of farm related tasks. In four of the livestock related tasks (#6, 7, 9 and 10), increases in participation were found when regular and occasional duties are combined. This may be due in part to the types of enterprises produced on the operation or the families perception of her off-farm job. The family may perceive the employment as a "luxury" and thus may insist that she participate, at least in part, in more farm related tasks.

There is a decrease in combined participation in marketing products and supervising hired labor. This, again, may be due to the time required to perform each of these tasks. Farm record keeping becomes more of an occasional duty for employed women compared to not employed women.

Joint decision making is high for women whether they are employed off the farm or not employed off the farm. Decision making patterns are often established early in a relationship and the woman may be consulted in much the same fashion after she becomes employed off the farm.

There is an increase the number of women indicating that "someone else" makes the decision in "when to sell products", "future plans for the operation" and "borrowing money". Instead of the decision being a joint decision, the farm woman may be suggesting that her husband makes the decision and she is less involved in those areas of decision making.

Off-farm employment status has little effect on the level of participation in farm tasks and decision making. The data pointed to a shifting, in some instances, from the farm task duty becoming an "occasional duty" to a "regular" duty. In some instances farm task participation is higher for women employed off the farm compared to women not employed off the farm.

Women continue to be involved in decision making after becoming employed off the farm. This may be due to the establishment of decision making patterns prior to off farm employment. In some instances there is a shifting of the decision from a joint decision to the decision being made by someone else. The decision may be made solely by the husband once the woman takes an off farm job.

Conclusion

Women remain highly involved in farm task participation and decision making throughout their lives and whether, or not, they choose to be employed on the farm. The level of participation in livestock related tasks decreases throughout the lifecycle, while participation in crop related and support related activities shows mixed results. Farm women participate highly in joint decision making in every stage of the lifecycle.

Off farm employment has little effect on farm task participation and decision making. In some instances women are more involved in farm task participation compared to women who are not externally employed. Externally employed women continue to be involved in decision making.

There continues to be a need for further research in the area of the womans' participation in farm tasks and decision making. Women continue to be a vital part of the farm management team and would benefit from programs designed to help them enhance those skills that they use daily on their farm or ranch.

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Table 1. Decision making style based on stage in life-cycle^a, in percentages.

Decision	Stage in Life Cycle											
	Early				Middle				Late			
	1	2	3	4	1	2	3	4	1	2	3	4
1. Buy or sell land	0	14	83	3	1	14	82	3	2	9	87	2
2. Rent/lease more or less land	0	18	82	0	1	19	78	2	2	18	79	2
3. Buy major farm equipment	0	11	89	0	1	33	64	2	2	25	70	2
4. Rent/lease equipment	3	17	71	9	1	36	59	4	2	34	56	8
5. Produce new crop/livestock	0	23	74	3	1	30	66	2	2	41	52	5
6. When to sell products	0	40	57	3	2	48	47	2	2	50	47	2
7. Try new production practice	0	40	57	3	0	44	50	6	3	47	44	6
8. Futures plans for operation	3	11	86	0	2	15	80	3	4	16	77	3
9. Seek new information	11	14	69	6	4	28	62	6	3	35	54	7
10. Borrow money	6	9	83	3	2	17	80	1	3	20	74	2

Source: SD Farm Woman Survey, 1990
 Percentages are based on those individuals responding to the question.

^aStage in life-cycle is defined by age of the respondent:
 Early = <35 years of age
 Middle = 35-55 years of age
 Late = >55 years of age

1 = I usually make the decision
 2 = Someone else makes the decision
 3 = Joint decision
 4 = Don't know

Table 2. On-farm task participation based on stage in life-cycle^a, in percentages.

Role	Stage in Life Cycle											
	Early				Middle				Late			
	1	2	3	4	1	2	3	4	1	2	3	4
1. Plowing, disking, cultivating or planting	15	26	47	12	17	32	40	10	15	19	55	12
2. Applying crop chemicals	6	9	69	17	2	10	71	16	3	12	67	18
3. Making farm equipment repairs	6	26	66	3	2	37	51	10	6	23	58	13
4. Field work without machinery	11	46	26	17	19	52	15	15	14	36	34	16
5. Harvesting, including truck driving	17	54	23	6	29	46	16	9	22	38	32	7
6. Taking care of farm animals	60	40	0	0	44	43	9	4	32	42	18	9
7. Feeding livestock	54	43	3	0	34	43	16	6	24	37	26	13
8. Milking dairy cows	15	3	18	64	7	7	13	72	10	2	34	54
9. Animal health care, including vaccinating, etc.	49	43	9	0	36	34	21	9	17	31	35	17
10. Caring for animals during pigging, lambing, etc.	49	40	9	3	39	31	17	13	27	27	27	18
11. Running farm errands	80	20	0	0	66	34	1	0	57	36	3	4
12. Marketing products	20	23	43	14	12	45	33	10	6	35	42	16
13. Bookkeeping, maintaining records, paying bills	94	6	0	0	67	20	9	4	69	18	10	2
14. Supervising hired labor	2	37	23	34	8	32	28	33	13	21	35	31

Source: SD Farm Woman Survey, 1990
 Percentages are based on those individuals responding to the question.

^aSee Table (1) footnote (a) for stage in life-cycle definition.

1 = Regular duty 3 = Never done
 2 = Occasional duty 4 = Not done on the operation

Table 3. Decision making style based on off-farm employment status, in percentages.

Decision	----- Off-farm Employment Status -----							
	Not Employed				Employed			
	1	2	3	4	1	2	3	4
1. Buy or sell land	2	12	85	2	1	15	81	4
2. Rent/lease more or less land	2	19	79	1	1	22	75	2
3. Buy major farm equipment	2	26	70	2	1	29	68	3
4. Rent/lease equipment	3	29	59	9	1	36	57	6
5. Produce new crop/livestock	1	32	64	3	2	37	57	4
6. When to sell products	3	45	50	2	2	54	42	3
7. Try new production practice	2	49	47	3	1	48	44	7
8. Futures plans for operation	4	11	83	3	4	19	75	3
9. Seek new information	1	29	64	5	6	33	53	8
10. Borrow money	5	14	79	2	2	22	74	2

Source: SD Farm Woman Survey, 1990
 Percentages are based on those individuals responding to the question.

- 1 = I usually make the decision
- 2 = Someone else makes the decision
- 3 = Joint decision
- 4 = Don't know

Table 4. Farm task participation based on off-farm employment status, in percentages.

Role	----- Off-farm Employment Status -----							
	Not Employed				Employed			
	1	2	3	4	1	2	3	4
1. Plowing, disking, cultivating or planting	17	25	48	10	10	31	45	13
2. Applying crop chemicals	3	12	70	15	2	7	72	20
3. Making farm equipment repairs	3	27	60	10	3	29	57	11
4. Field work without machinery	17	49	18	17	14	46	24	16
5. Harvesting, including truck driving	28	41	25	7	19	49	22	10
6. Giving care of farm animals	37	42	13	8	40	44	13	3
7. Feeding livestock	25	41	22	12	34	44	18	4
8. Milking dairy cows	11	4	25	60	7	4	21	67
9. Animal health care, including vaccinating, etc.	25	33	27	15	27	36	30	7
10. Caring for animals during pigging, lambing, etc.	34	25	20	21	30	39	22	8
11. Running farm errands	71	23	4	3	49	50	0	1
12. Marketing products	13	44	30	13	9	26	46	19
13. Bookkeeping, maintaining records, paying bills	72	16	9	4	64	23	9	4
14. Supervising hired labor	14	29	30	26	4	25	32	40

Source: SD Farm Woman Survey, 1990
 Percentages are based on those individuals responding to the question.

- 1 = Regular duty
- 2 = Occasional duty
- 3 = Never done
- 4 = Not done on the operation