DIMENSIONS OF WOMEN'S WORK INVOLVEMENT ON FAMILY FARMS: A CASE STUDY OF TWO MID-MICHIGAN TOWNSHIPS

By

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ABSTRACT

DIMENSIONS OF WOMEN'S WORK INVOLVEMENT ON FAMILY FARMS: A CASE STUDY OF TWO MID-MICHIGAN TOWNSHIPS

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Taking into account the social organization of agriculture in two mid-Michigan townships, the study focuses on variabilities in work patterns of women on hobby, small and larger farms. Housework, farm work and off-farm employment are considered. Information was obtained from 124 women from nuclear family, farm operator households through a mail questionnaire. Stage in family life cycle, use of farm laborers, nature of farming enterprise, and seasonal variations in hours spent farming are considered.

Findings suggest that women are most involved with bookkeeping, paying farm bills, gardening, keeping an eye on produce markets, and ordering and obtaining farm supplies. Women on larger farms are more actively engaged in farm work and more frequently are the sole source of off-farm income for their households. Size of farm seems to have little to

do with range of household activities. The importance of women's off-farm employment is implied through a number of associations.

To three very special women in my life: Glad, Robin and Jude.

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CHAPTER I

INTRODUCTION

The seventies saw an increasing concern about the changing structure of American agriculture and a growing politicization of the farming community. Organizations, such as the American Agriculture Movement, which evolved from the struggle of farm families with soaring inflation, high taxes, energy shortages and uncertain markets, became more militant and far more visible on the national scene. Farm people felt that these pressures were forcing them to make cutbacks, take off-farm jobs, sell out, or, worse yet, go bankrupt. The widespread reality of these problems is evidenced by a continually declining United States farm population (United States Census, 1978).

Still, while calling for "parity" and seeking governmental assistance in the amelioration of their problems, most are somehow adjusting to the economic crunch, coping with market uncertainties and continuing to survive as viable family farm enterprises. By increasing their farm acreage, doing custom work, reorganizing their management practices and supplementing farming with industrial jobs,

they are dealing with the crippling economic impingements.

Students of the changing social organization of agriculture have very little information available from which to formulate a clearer image of the patterns by which modern farm family members organize their lives, exercise their ambitions and, in the process, achieve a measure of personal and familial satisfaction in these times. The concept of a family farm enterprise is utilized in the literature to capture the familiar situation in which household members labor together for the mutual benefit of the farm operation. Like most income producing enterprises, farm operations invariably depend upon the labor of a number of persons to insure their viability. A farming operation, in other words, is not merely the activity of one "farmer" (as we are sometimes led to believe), but rather a result of the concentrated effort of a work group. The labor of women and children is often mentioned as an important contribution to family farms. Still, research concerning labor inputs on American farms and the organization of work has focused mainly on direct farm production activities (such as fieldwork and barn chores) -a segment of the enterprise in which American farm women have historically not been prominent figures.

We prefer to regard family farms as multifaceted economic organizations involving not only farm labor inputs, such as fieldwork and barn chores, but also "hidden factors of production," such as housework and childcare. As Oakley

(1974), Millman and Kanter (1975), and Secombe (1973) have suggested, the productive activities of housework, household maintenance and childcare are often not recognized for their significance in sustaining human life. For example, producing and storing food for home consumption and for hired hands is a maintenance function of enormous significance to the family farm enterprise. Prompt, hearty meals whose preparation requires the attention of one or a few family members facilitate unimpeded farm work routines. The perception of housework and childcare as nonproductive is an illusion about unpaid labor which touches all households. Exclusion of the "hidden factors" from an analysis of work on American family farms would provide only partial understanding.

A more holistic picture of family farm enterprises necessarily draws attention to women's roles in farming operations. Responsibility for housework has typically fallen upon the shoulders of farm women, thus we assume that if all facets of work on family farms (such as farm work, housework, and childcare) were considered, an investigation of farm women's roles would display a wide spectrum of contributions. Yet, the varied contributions of farm women to family farms are poorly documented. Although popular farm magazines are filled with testimony to the significance of this segment of the American farm family (e.g., Pollard, 1977), public and social scientific acknowledgement is relatively weak (Joyce and Leadley, 1977).

The actual and potential contribution by farm women to American agriculture has always been great. As mentioned, farm women have traditionally been responsible for housework and childcare. Yet, these tasks have often differed substantially for farm women from those of their urban counterparts. Farm women, on the whole, have been shown to engage in more home food production and food preservation activities than urban women. In addition to housework and childcare they often provide support for the family enterprise through work on the farm and from paid employment off-the-farm. These activities--housework, childcare, farm work and off-farm employment--may be combined into various arrangements relevant to economic needs and circumstances.

Particularly in light of the many changes in the social position of women that have occurred in the past decade, our curiosity should be heightened as to new or accumulated roles women may now have in modern farming operations. Empirical evidence concerning the effect of these social developments (beyond basic demographic data) is largely unavailable. Thus, many of us still rely upon the picture of farm life deriving from the earlier literature: the traditional homestead with tightly maintained sex-typed roles --a place where women are self-professed helpmates (as noted by Flora and Johnson, 1978). Unfortunately, many depictions, such as the above, rest upon stereotypical versions of farm life rather than upon careful research. The reality of farm people's lives is often viewed from a

romanticized perspective. Recent transformations make such typifications particularly suspect. Flora and Johnson (1978) remark:

> "The stereotypical image of rural women can not be relied upon too heavily, however, for the growing diversity of rural women will eventually shatter it" (1978:180).

New structural opportunities, such as increased rural employment options for women (Sweet, 1972), provide a basis from which new, innovative responses to economic and social needs can and perhaps are being instituted.

Our consciousness of past neglect of women in social scientific research (Bernard, 1973; Millman and Kanter, 1975; Joyce and Leadley, 1977) should make us skeptical of conclusions about farm women's contributions to family farms deriving from unsubstantiated sources. Rather than relying upon traditional imageries and normatively reinforced points of view for understanding the life and work patterns of farm women, we need to reexamine our basic assumptions and gather more information. In addition, we must be sensitive to the notion of "changing roles" and cognizant of when we are uncovering patterns which, although "new" to our knowledge, have been in existence for decades or longer.

The topic and questions being raised here are exceedingly complex: What are the forms and scale of involvement of contemporary farm women on family farms? The farm tasks they engage in comprise only one, albeit important, element of participation; the hidden factors of

production must also be acknowledged. The following literature review surveys ways in which past researchers have understood farm women's work involvement. Its purpose is twofold: 1) to sensitize the reader to flaws and omissions in research on 20th century American farm women, and 2) to provide a basis from which suggestions for more fruitful methods of studying farm women's participation may arise.

The Work of Farm Women in the 20th Century: A Literature Review

Data on women's farm labor patterns before the early 1900s are scarce and found primarily in documents such as diaries, letters and poetry. A burgeoning of social scientific investigations and increasingly sophisticated censuses have focused attention on the need for greater breadth and quality of knowledge about farm women's lives in the 20th century. Sociologists and demographers have provided glimpses of the contributions being made by women to agriculture; yet, detailed excursions into the everyday lives of farm women remain rare.

The following literature review provides an overview of contemporary social scientific studies concerning farm women's work. Evidence about women and farming comes from census reports about female farm workers, the "time studies" of the 1920s, literature on the land armies of the 1940s, studies of farm family (husband-wife) role relations during the 1950s, farm family decision-making surveys from the

1960s and examinations of farm women's labor patterns in the 1970s. Because this review is mainly concerned with women on family farms, it is important to recognize that the Department of Agriculture's notion of a family farm has undergone changes in the course of this century. During the early 1900s, a family farm was considered to be an operation which "ought to be able to support a family and fully employ its labor" (Brewster, 1979). Transformations instituted in the 1940s acknowledged that a moderate amount of outside labor might be employed on a family farm. Beyond the forties, the definition no longer demanded virtual self-sufficiency of the farm family; since the late fifties, the family farm has been recognized as a business "in which the operator is a risk-taking manager" (Brewster, 1979) and thus it includes part-time and very poor farms.

Census Records in the Early 20th Century

The census is one of the earlier sources of systematic information about the work of women on family farms. Procedures by which the census recorded the labor of women and other unpaid farm workers have undergone numerous changes in the course of this century. Its representations of women's contribution to family farms vacillates in response to a variety of definitions and enumeration instructions.

In the beginning of the 1900s, the census made no attempt to record the unpaid work of family farm members. A farm laborer was distinguished from a farmer (the primary

operator of a farm enterprise) as a person (over 14) "who works on a farm for a stated wage (in money or its equivalent) even though he may be a son or other relative of the person who conducts the farm" (Hill, 1929:18). According to the 1900 census, women accounted for 15% of all farm laborers. Given the focus on wages in this definition, it may be safe to assume that female migrant workers or seasonal fruit and vegetable pickers predominated in this classification.

In the census of 1910, however, the definitions were changed and the category of unpaid farm laborer was introduced. Enumerators were given special instructions to record as farm laborer "a woman working regularly at outdoor farm work, even though she works on the home farm for her husband, son, or other relative and does not receive money wages" (Hill, 1929:17). Although ambiguous, this modification provided an initial opportunity to document the input of unpaid family workers. The impact of the new terminology was evident when census returns displayed a sharp increase in women's overall employment rate; a rise which could, in part, be traced to the large percentage of female farm laborers. A 143.8% increase in women agricultural laborers was shown by the 1910 data (Hill, 1929:18). In 1910, women comprised roughly 25% of the farm laborers and 4% of the farmers (United States Census, 1914).

Census directors mistrusted the remarkable 1910 information on women and after a study of occupational

returns, they assumed an overenumeration of farm workers. Women doing only "incidental farm chores" were thought to have been frequently recorded as laborers. Accordingly, the 1920 census initiated a further change, reshaping the substance of the definition of farm laborer. In 1920, the instructions to census takers read:

> "For a woman who works only occasionally, or only a short time each day at outdoor farm or garden work, or in the dairy, or in caring for livestock or poultry, the return should be 'none;' but for a woman who works regularly and most of the time at such work, the return should be farm-laborer-home farm; farm laborer-working out;....as the case may be" (Hill, 1929: 17).

The 1920 version did not specify the matter of wages. By implication of the contrast between "farm laborer-home farm" and "farm laborer-working out," enumerators may have assumed unpaid workers were to have been excluded. However, this particular element of the definition was vague; its impact upon the final tabulations is unclear. The 1920 statistics recorded over a 45% drop in women agricultural laborers since 1910 and a 51.2% decline in female "farm laborers-home farm." According to this census, 31% of "farm laborers-home farm" and 20% of all farm laborers were women (Truesdell, 1926).

This sharp reduction in the count of women agricultural workers may also have been exaggerated by a shift in the timing of the census enumeration, from April in 1910 to January in 1920. Earlier reporting most likely reduced the

number of women farm workers due to the more seasonal nature of their farm labor (only occupations for the specified week were reported).

Time Studies of the 1920s

In 1925, the government instituted the Purnell Act to facilitate the study of rural life. One outcome of this act was what are now referred to as "time studies" of rural women and their work. Although primarily interested in the organization and use of time in housework, the studies also acknowledged the involvement of women in farm chores. With the exception of Studley's (1931) project[1], female volunteers were requested to record their daily activities on a 24 hour time sheet for a typical week. At the end of this time period, data were collected and tabulated. Investigations through interviews or observation were never attempted.

The farm women participating in these time studies could not be said to represent any specific population. Convenience samples of persons suggested by extension agents were predominant. Response rates were usually low. One study (Wasson, 1930) which noted the actual percentage of replies obtained from the survey, revealed a very low return rate of one third, of which only 75% were utilizable.

Not surprisingly, the results from these studies were often interpreted by the authors as typifying farm women in a given state or area, even though the possibility of systematic error and distortion was, of course, rather

great. For example, the process of recording one's time demanded the attention of each volunteer for a complete week. Those women most extensively engaged in farming, working off-farm, homemaking and/or raising a family may have been less willing or able to utilize their scarce free time for this cause.

The time studies were analyzed in an elementary fashion. Farm women in these studies, on the average, were reported to devote approximately 53 hours per week to housework, which was about 83% of their total labor time. The single most demanding activity, providing food (by cooking meals, storing garden food, etc.), averaged as high as 50% of the women's work time in Wasson's (1930) sample. Substantial proportions of these women baked bread and preserved food in addition to their daily preparation of meals. Studley's (1931) sample supplied almost all of their families' milk, eggs and potatoes from their farms. Most women were burdened by the necessity of tending wood stoves, carrying water to and from the house, wring-laundering clothes and cooking for the entire family and hired hands. All this, of course, was in addition to daily housekeeping and childcare chores.

A fascinating piece of information about women's farm tasks emerged from calculations of yearly average time expenditures doing farm work[2]: 11 hours and 45 minutes per week or 17.5% of the average farm wife's work week. Actually, large seasonal differences were found. Wasson's

(1930) "average" South Dakota farm woman engaged in farm labor almost twice as much in the spring and summer than in the fall and winter. Only one mention was made of the ranges of time expended in farm work, which spanned from none for some women to over 35 hours per week for others (Wilson, 1929). Women reported caring for chickens, tending the garden and working in the dairy operation as the chores with which they were most involved. Unfortunately, details about these tasks are absent and thus an inventory of skills can not be gleaned from the data. Only peripheral reference was made to other farm tasks done by women such as fieldwork, livestock, management and fencing. The conditions and motivations which prompted women to participate in the various farm tasks and to devote enormous amounts of time furthering the family farm enterprise were left unexplored; this is a regrettable gap in our knowledge about these women's lives.

Though much information is missing from the time studies noted above, they are valuable records of the history of American farm women's involvement in farm tasks and housework. The data provide clues about the time demands of various farming activities and help form a contextual description of working conditions in the early part of the century, particularly for those farm homes without conveniences such as indoor running water, electricity and heat.

Census Reports of 1930 and 1940

Following the time studies of the 1920s, farm women's work was given little scholarly attention until the 1950s. Census information, however, indicates that in 1930, 28% of all unpaid family farm laborers were women. By 1940, the percentage fell to 20% alongside the century's declining rural farm population. Additionally, occupational information about farm residents was available for the first time: 6.7% of farm women were employed off-farm in 1940 (Sweet, 1972:564).

World War II Land Armies

During the early 1940s, a significant development occurred in the farm labor role of women; this change received much coverage in the popular press but went virtually without comment in the social scientific literature of the time. Due to civilian labor shortages and rising industrial wage levels caused by the war mobilization, male farm workers became scarce. The government's response to this problem was to create a "land army," composed mainly of women and teenage children, which could provide farm labor in needed areas. Though at the time several hundred thousand women were already engaged in farm work as female farmers, migrants, and unpaid workers (Colvin, 1942), the aid of an estimated three quarters of a million additional women (primarily rural non-farm and urban) was thought necessary to meet agricultural labor demands (Need for Women in Agriculture, 1944).

Women were encouraged to lend their time and energy to this cause. Various appeals suggested they would be involved in tasks such as corn tasseling, hay pitching, wheat and vegetable harvesting, peanut shaking and dairy and poultry work in return for small stipends (Hall, 1943;1945; Colvin, 1942; Need for Women in Agriculture, 1944). Unfortunately, investigations were never conducted on the work women actually performed in the land army; the extent of their involvement and its impact remain somewhat of a puzzle.

The Postwar Era

In the late 1940s, census planners once again decided to modify the definition of unpaid farm laborer. The 1950 census incorporated the clause that "a person must be engaged in at least 15 hours of work during the census week" to be classified as an unpaid family worker (United States Census, 1953). Once again the nature of farm "work" was not specified and, although one might suspect that the new, rigid standard of 15 hours of work might reduce the count of farm women involved in farming operations, census directors believed the 1950 increase of 68% more unpaid women farm workers demonstrated that the new definition could more accurately uncover females' aid. Thus, while the farm population continued to decline in this postwar era, a sharp rise was reported in the proportion of unpaid women farm workers from approximately 20% in 1940 to 35% in 1950.

This also was a time when interest in the structure and

function of the American family was escalating. Social scientists had begun to explore the nature of the division of labor in conjugal units. Parson's (1955) landmark work on familial expressive and instrumental roles, a thesis which assumed the existence of solidarity among married couples as a result, in part, of a particular sexual division of labor, played a key part in establishing the intellectual guidelines for these inquiries. This transition in sociological history was influential in shaping examinations of family labor and the work of women on farms. Studies from the 1950s and 1960s often imposed instrumental (presumed to be male) and expressive (presumed to be female) segregation on family units and concentrated upon women as socio-emotional leaders. Rural sociological analyses were no exception.

Reports deriving from the 1954 Detroit Area Study of 731 urban and 178 rural families had great impact upon sociological impressions of the division of labor and women's work (Blood, 1958; Blood and Wolfe, 1960). Conclusions relied, much like the earlier time studies, upon gross representations of men and women's work.

The initial analysis (Blood, 1958) was primarily a rural-farm versus urban comparison of the work women do. Blood's hypotheses were that farm women in contrast to urban women: 1) perform a larger share of house tasks and 2) help more often in their husbands' occupation. Basically, Blood's findings supported his original expectations. Farm

women received less aid from their spouses with the 8 household tasks studied than did urban women. Noted also were the extensive amounts of home production activities of the farm women, such as sewing, baking, gardening, and canning and freezing garden food. Fifty-five percent of these farm wives acquired most to nearly all of their vegetables, baked goods and clothes by home production in contrast to only 1% of the urban sample. Additionally, 70% of the farm sample directly helped in their husbands' occupation, while only 8% of the urbanites mentioned similar involvement. Since the subjects were given the opportunity to label themselves direct aides (as did the majority of farm women), "helpmates" (through housework and control of family consumption), or indirect, emotional supporters, this can be considered a significant finding. Clearly these rural farm women's self-perceived role, which emphasized instrumental activities rather than expressive ones, was not anticipated by the Parsonian frame of reference utilized by Blood and Wolfe.

Blood's (1958) investigation of women's participation in home and farm work offers important insight into mainstream sociological perceptions of women's work in this postwar era. We should not lose sight of the fact that Blood and Wolfe perceived of a woman's farm work as an element of her husband's occupation. One may speculate that this characterization arose from the authors' ignorance of the roles women had earlier on family farms, evidenced by

this comment:

> "The answer seems to lie in the nature of farming as an occupation. It involves many tasks (especially those connected with the care of livestock) which require little strength or skill and for which women can therefore be utilized as helpers" (Blood, 1958:173).

The failure to obtain firsthand information about the work and skills of women in their sample underscores only one major flaw in Blood and Wolfe's research[3].

Straus (1958;1960) utilized the concepts of instrumental and expressive roles also in his postwar studies. He sought to assess the wife's influence upon the successfulness of her husband's farming operation. Interestingly, he measured the woman's input by her score on a personality trait test which tapped levels of a supportive, complimentary role. He hypothesized and found that successful farmers tend to have wives with high scores on a scale testing integrative-supportive personality traits.

The impact of a supportive spouse in a stressful situation, such as the Columbia Basin irrigation project's settlement area which Straus studied, is, of course, potentially very positive. But, Straus neglected to consider the direct economic contributions of women's production activities on the farm's success. Only two items of information were gathered about women's farm work: 1) if she ever aided in farming and 2) if she had a garden and preserved food. The wives of successful growers more often

had gardens and preserved food than the wives of less successful farmers; yet, this involvement was perceived by Straus as part of an emotional-supportive role. Amounts of time and managerial skill a woman devoted to farm work were apparently regarded as of minor importance, since these contributions were not considered.

In a later investigation of technological adoption practices by farmers, Straus (1960) employed an index of 46 items, 15 of which he found discriminated (though not significantly) between wives of high adopters and low adopters. Again, home production labor such as gardening and meat production was labeled as integral to the supportive role.

The "fit" of an integrative-supportive role conceptualization to the empirical realities of farm women's lives remained unchallenged in the sociological literature for many years. Generally, factual information about farm women's work was taken for granted and regarded as easily and adequately understood (e.g., see Gross, 1958, for description of women's farm labor without any empirical reference). As a result, those who helped shape our perceptions of farm life in the 1960s were largely unconcerned with the work of farm women and, indoctrinated with the practices and perspectives of postwar researchers, their studies tended to pursue farm women's "supporting" role and how this affected the decision-making process and the rapid adoption of recommended farm practices.

Decision-Making in the 1960s

The decade of the sixties brought a continuing decline in the farm population and an increase in the proportion of women employed in the United States. Census data indicate there was a decrease in the absolute number of unpaid women farm workers (United States Census, 1963). But farms were depending more and more upon women as unpaid labor: 44% of the unpaid farm workers in 1960 were women (an increase from 35% in 1950). Furthermore, 16.4% of farm women were employed in off-farm jobs (an increase of 7.2% from 1950) (Sweet, 1972:564).

One of the first studies reporting on the lives of farm women in the sixties came from Wilkening and Bharadwaj's (1966) survey of approximately 500 Wisconsin farm couples. These farms were clearly dependent upon unpaid family help for labor: less than one third ever hired even seasonal help (1966:9). Husbands' cited their wives as prominent aids: 44.9% worked over 21 hours per week on farm tasks while 23% performed over 40 days of field work during the year. Additionally, 14.6% of the women had off-farm jobs. Women were heavily involved in such chores as caring for the poultry enterprise and cleaning milking utensils; feeding livestock, milking, and tractor driving were also mentioned.

Unfortunately, Wilkening and Bharadwaj offered somewhat simplistic portraits which did not do justice to the complex information available to them. Although women and men performed a variety of overlapping chores (a division of

task participation between males and females was frequently not clear), the authors chose to underscore the presence of unique (and separate) male and female roles on these farms. The dynamic patterns in the lives of their subjects were lost in the authors' conclusions.

Wilkening and Bharadwaj also reported the effect of women's involvement in farm tasks[4] upon their participation in farming decisions among these 500 farm couples (Wilkening and Bharadwaj, 1967;1968). Farm task participation was strongly associated with involvement in both major and minor decisions on the farm; household work participation also gave women an integral role in home decisions. Women's farm work role had a direct influence not only on the production activities of a farm, but also upon farm management, mediated through the variable of farm size, which was found to have a curvilinear effect[5]. More specifically, an extensive work role by the woman was positively associated with high participation in farm management activities by the woman, but only on moderate size farms.

Sawer's (1973) attempt to explore influential factors in the participation of women in decision-making on farms reinforces Wilkening and Bharadwaj's 1968 findings. She reported correlations of .49 for task performance[6] and general farm management decision-making and .42 for task performance and adoption practices for a sample of 67 Canadian farm couples. Other factors associated with the involvement of women in farm decision-making included size

of operation (acreage and income) and family size, all negatively related, while education and age played little or no part.

The Seventies: Reexamining Women's Roles

Research concerning farm women has never been very abundant; with the rise of the women's movement in the United States, however, there has been more concern about various dimensions of women's lives, including their status and roles. Within the last decade there has been a moderate increase of studies dealing with farm women. The striking change in this research, as compared with the fifties and sixties, was a rekindled curiosity concerning the work of farm women, who, by 1970, comprised 61% of all unpaid farm workers (United States Census, 1978).

Kohl's (1977) exploration of 139 Canadian ranching families must be recognized as the first strong challenge in the rural sociological literature to the assumption that women's work (including housework and childcare) is qualitatively separate from economically productive work on the farm. She outlined the linkages between daily family life and the maintenance of a viable farm operation.

Kohl understood the sexual division of labor to operate in two ways: ideologically and in practical application. This useful distinction underscores the pitfalls of previous research which assumed these two facets of the division of labor were complimentary, if not identical. In contrast, Kohl showed that one common ideological conception of the

division of labor, where responsibility for the home is a woman's and responsibility for the business rests with a man, contradicts the practice of these farm families; women were vital participants in the "men's world." Aside from numerous outside chores, such as baling, fencing, caring for cows, running errands and riding in roundups, women often managed the records of the operation. Farm women did most of the letter writing, bookkeeping, and recording of farm data. Kohl referred to these women as "controllers of information," a powerful role particularly evident during contact with outside agencies, and one which has a positive influence upon women's participation in decision-making on these farms. In spite of the lack of congruence between ideological conceptions about the division of labor and these people's everyday lives, gender-role distinctions were reinforced in the daily conversations of family and neighbors, causing an inherent double burden for women. On the one hand, house chores were assumed to be the farm wife's sole domain, while, on the other hand, direct labor and managerial contributions to the enterprise had become an expected role; in point of fact, the farming operations Kohl studied were clearly dependent upon the farm wife's participation.

Interviews with women from family farms in Vermont, Oklahoma and Colorado were initiated by Boulding (1979) during the late 1970s. Her interest was, in some respects, a response to the scarcity of information and the slant in

research toward "what men think women do" (1979:5) as opposed to what women say or are observed to do. Her pilot study was her first attempt to investigate the labor of women; few (27) were actually interviewed.

Boulding's sessions with women elicited dimensions of women's activities previously untouched. The coordinating efforts of females and the "go-fer" (errand running) duties they performed were said to hold the farming operation together (these are rather amorphous, irregular activities often done concurrently with incidental chores). Boulding articulated the job of veterinarian, such as birthing and breeding, and the job of information gatherer, such as surveying the current farm literature. Although Boulding mentioned the inherent role of domestic work in the running of farm enterprises, this item was omitted from her analysis.

In 1979, Wilkening and Ahrens surveyed 532 Wisconsin farm women. Citing previously unexplained questions about women's farm work, they developed hypotheses about the effect of structural factors such as farm type (dairy vs. nondairy), life cycle stage, husband's off-farm work and husband's education.

The impact of type of operation was evidenced only on dairy farms without hired help which grossed under $20,000. Life cycle did not show the relationship expected: women with children under 14 were more likely to do bookkeeping and farm chores--perhaps pointing to the overwhelming

economic needs of younger farm families. A positive association was shown between women with high levels of daily farm work and husbands' with off-farm employment on dairy farms only. Husbands' education had little or no effect, while the higher the women's education, the less likely she was to do chores or fieldwork.

On the basis of an in-depth participant observation experience in a Colorado farming county, Pearson (1979) drew the first typological portrait of female farmers. Pearson rigidly defined women's relationship to agricultural production as subsuming only direct agricultural labor inputs, and left homemaking a peripheral issue. Dual roles of domestic and farm laborer are awkwardly embedded within this first attempt to abstract dimensions of women's involvement in farming. Although an important study, Pearson's research explores only one element of women's participation on family farms and neglects the impact of their off-farm income, home production and childcare.

Contemporary researchers have begun to reexamine the fundamental characteristics of farm women's work. They are aware of the numerous distortions and omissions which have occurred in the past, but even recent research has many of the same shortcomings which flawed earlier works. An attempt will now be made to bring these common stumbling blocks into clearer perspective in the following summary evaluation and assessment of the 20th century literature on farm women's work.

Synopsis: Research Approach Weaknesses

The weaknesses which pervade this century's literature on farm women's work seem to derive from a combination of methodological flaws and conceptual imprecisions. The more obvious methodological flaws include unrepresentative samples, unclear measurement procedures, and unexplained variables. These problems present the critical reader with serious questions as to the reliability and validity of information in many reports. Inaccuracies concerning, for example, the implied homogeneity of farm women, the relationship of family to economy, the conceptualization of the division of labor, and the multidimensionality of women's work present us with the need to rethink many current perceptions of the American family farm within the social organization of agriculture.

Methodological Flaws

Unrepresentativeness. Although numerous studies claim to offer conclusive results about the characteristic work roles of farm women, few have a solid statistical basis upon which to stake their claims. Populations are rarely defined and samples are frequently selected for their special characteristics, rather than for their typicality in representing a given situation or geographic region to which the author wishes to generalize. This problem is evidenced in the works of Crawford (1927), Wilson (1929), Wasson (1930), Studley (1931), Kohl (1977), Royzne and Vail (1978), Pearson (1979) and Boulding (1979). In addition, the

nucleus of concern has been that of white farm families who, although not always middle class, appear far removed from a subsistence level lifestyle. The plight of Black and migrant farm women is only beginning to receive attention (e.g., Smith and Jenkins, 1979; Barton, 1979).

Unclear measurement procedures. There is often no clear rationale for the selection of farm and house task items utilized to measure women's involvement; the issue of validity is never addressed. For example, no rationale was supplied for the selection of the 8 home tasks in the Detroit Area Study (Blood and Wolfe, 1960). Only two of the eight items appear to be daily activities (get husband's breakfast on work days; do the evening dishes), while 2 have the characteristics of weekly duties (keep track of money/bills; grocery shopping). The remaining 4 included seemingly occasional chores (repair things; straighten the house for company) and seasonal ones (shovel the walk; mow lawn). In addition, the studies did not inquire about the work of children, who may have performed any of the eight items; thus, the answers may not accurately represent the familial division of labor. Sawer (1973), Wilkening and Bharadwaj (1966; 1967; 1968) and Wilkening and Ahrens (1979) also err in this direction.

Futhermore, often we are given no knowledge of the substance of women's tasks. Only rough areas of their involvement are suggested in the literature. For example, even though we are aware of women's high degree of work

participation on dairy farms, we must still raise the question, "What is the nature of women's farm work and skills in these operations?" Direct observation of women's work is rare and present only in the works of Pearson (1979), Kohl (1977), and Boulding (1979).

Unexplained variables. Simple, unelaborated analyses which offer no control for the effects of such conditioning components as farm type and size, stage in the family life cycle, and off-farm employment patterns are predominant. Little illumination is given to the complexity of women's lives and familial circumstances. The works of Crawford (1927), Wilson (1930), Studley (1931), Blood (1958), Blood and Wolfe (1960), Straus (1958; 1960), Wilkening and Bharadwaj (1966), Kohl (1977), Royzne and Vail (1978), Boulding (1979), and Pearson (1979) are of this flat analytical style.

Conceptual inaccuracies

Implied homogeneity of farm women. An unfortunate ramification of the many unexplained variables is the implied homogeneity of farm women. Studies which fail to take into account situational differences leave one with the impression that such conditions are not very important in determining how farm women organize their lives. Indeed, the social contexts and labor demands of the various types of farming operations with which women are involved and which affect the patterning of their daily activities have rarely, if ever, been researched by sociologists.

Stringent separation of family and economy. The ideological separation of family from economy has historical roots which predate this century's research on women (Zaretsky, 1973). As a consequence, social scientists have not always perceived of women's work in the family as directly related to economic production activities, nor have they acknowledged women's housework and childcare as integral components in the maintenance and socialization of labor force members (Benston, 1969; Oakley, 1974). This separation is particularly awkward in the study of rural farm families whose daily lives are inextricably tied to the dynamics of production on their farms.

The classical sociological perspective on the relationship between family and economic production was given theoretical legitimation through Durkheim's (1933) thesis of asymmetrical male and female familial roles. Durkheim's way of approaching the phenomenon tended to reinforce the perception of women as marginal to economic production and, in turn, thus motivated some scholars to broadly interpret farm women's work under the rubric of "emotional, integrative support" (see, for instance, Parsons, 1955; Straus, 1958; 1960; Blood, 1958; Blood and Wolfe, 1960; and Wilkening and Bharadwaj, 1966). The cash income that farm women have contributed from off-farm employment to the maintenance of viable family farm households has been virtually ignored (for a possible exception, see Sweet, 1972).

Inarticulate application of the concept of division of labor. Many problems stem from erroneous use of the concept of division of labor. Early sociological researchers employed the notion freely, refrained from describing its parameters, resisted specifying operational definitions and, consequently, have left an extremely difficult trail to follow. This vagueness is evident in the works of Blood (1958), Blood and Wolfe (1960) and Straus (1958; 1960). Wilkening and Bharadwaj (1966) provide an excellent example of this problem when they declare "the division of farm and family tasks follow traditional lines" (1966:7), but then go on to acknowledge considerable task overlap and joint participation. Since they neglect to define what they mean by the "traditional division of labor," we have no way of evaluating such a claim.

Many researchers falsely assume that ideological conceptions of the division of labor are identical with people's daily work routines. This assumption occurs even in the face of evidence contradictory to such assumptions (e.g., Blood and Wolfe, 1960; Straus, 1958; 1960; Gross, 1958; Wilkening and Bharadwaj, 1966). Most exposés on rural farm life are still infused with notions of extremely rigid splits between farm life for males and females (e.g., Flora and Johnson, 1978). Kohl remains the sole investigator to distinguish between common conceptions of the division of labor and people's everyday work activities which, as she points out, generally display unique characteristics.

Separate work spheres for males and females, an idea often reinforced in the daily conversations of farm people, are not necessarily congruent with the reality of their lives.

Unidimensional depictions of women's work. Rather than grasping the multifaceted reality of women's involvement on farms, the literature overflows with unidimensional "snapshots" (e.g., Crawford, 1927; Wilson, 1929; Wasson, 1930; Studley, 1931; Blood and Wolfe, 1960; Wilkening and Bharadwaj, 1966). A fixation on average tendencies in women's farm activities has stifled the evolution of useful typologies; we are only on the verge of developing workable paradigms for research (as evidenced by Pearson, 1979). The fruitfulness of future conceptualizations rests upon our ability to articulate women's spheres of participation. As mentioned previously, some scholars (such as Kohl, 1977; Pearson, 1979; Wilkening and Ahrens, 1979 and Boulding, 1979) have given recognition to the importance of women's housework and/or paid employment (in addition to farm work), yet little effort has been made to weave these themes into a coherent whole.

Reconceptualizations and New Directions

The present study represents an effort to overcome many of the weaknesses in previous research of farm women's work involvement. Designed to gain a more holistic picture of women's contributions to family farms, the study attempts to reformulate some troublesome conceptual issues which have plagued research on this topic.

The backbone of our approach entails three main features. To begin with, situational diversity is taken into account by considering three kinds of farming operations: hobby, small, and larger scale farms. The work roles of women in these three qualitatively unique situations will be examined. Further, within each of these settings the influence on women's work participation of other kinds of situational factors, such as stage in family life cycle, will be explored. Secondly, the family farm household is conceptualized as an economic unit which includes home production; our approach does not require the illusory split between family life and economically productive activities. Finally, three spheres of farm women's work are examined: farm work, housework, and off-farm employment. In this respect, a multifaceted perspective on women's contributions to family farms is presented. Another essential work sphere, that of childcare, is unfortunately not included in our analysis.

Summary

This chapter reviewed, very briefly, some of the major studies of farm women's work involvements. It considered various research based upon census data, the time studies of the 1920s and 1930s, examinations of husband-wife role relations in the 1950s, decision-making surveys of the 1960s, and reports on women's farm work in the 1970s. Although each of these studies provide some insights we may learn from, the approaches taken by research on this topic,

we submit, have been bothered by numerous conceptual and methodological problems, such as the implication that farm women constitute a homogeneous category, and the view that farm women's work constitutes a standardized, normatively specified, undifferentiated set of roles.

The present study attempts to reformulate a number of these problems. This, we anticipate, will lead to a more realistic view of contemporary work patterns of American farm women. Three research strategies are employed: 1) taking into account social situational variabilities, such as scale of the farming operation; 2) conceptualization of household work as an integral part of the family farm enterprise; and 3) consideration of the multidimensionality of women's work (in this case, farm work, housework and off-farm employment).

The chapter to follow specifies our study population, data collection procedures, study variables, and the population subsets of concern which will be the primary subjects of our analysis.

CHAPTER II

RESEARCH DESIGN: DATA AND METHODS

Studies of work by women on family farms have utilized various data gathering procedures: census enumeration, survey, direct observation, focused interviews and psychological testing. The present inquiry attempts to build upon and incorporate information from a combination of methods.

A rather detailed description of the setting and local situation was obtained from interviews of neighborhood informants and the systematic analysis of data from public documents. We wanted to understand the social organizational context within which the more structured foci of inquiry would be pursued and we wanted to have a firmer idea of the range of farm types and farm family forms that existed in the study site area. In-depth interviews with selected women generated specific ideas and insights relevant to the formulation of a survey instrument to assess the farm family's division of labor. A mailed questionnaire was merely a final phase of our research.

Setting and Study Population

The farm family households in two south central Michigan townships, Brookfield (in Eaton county) and Venice (in Shiawassee county), are the objects of interest for this study. The term "family household" refers to any collection of persons who reside together at the same address, including non-kin. A "farm," by definition, is a unit of 10 acres or more of agriculturally zoned land. To be considered a "farm family household," at least one household member must be the owner and/or operator of a farm. Encompassed within the definition of a "farm" is all agriculturally zoned land, including that which is idle or non-tillable, and woods (of 10 acres or more). Each farm is associated with at least one farm family household (that of its owner); hence, a few "farm family households" are merely owners of land which is not being utilized for agricultural purposes. A number, of course, are merely owners of farmland that is operated by another family. The application of the term "farm family household," therefore, is awkward in some cases; but, since these families are tied, at least in an ownership capacity, to agricultural production and possibly even in a more direct way in the future (since some idle acres could be converted into productive ones), no households were excluded from our survey on the basis of the current use of their land.

Since a separate thrust of this study is to understand the structural interrelationships between full and part-time

farming in Michigan, the townships' propinquity to nearby industrial centers was a primary consideration in their selection. Both are within reasonable commuting distance to cities with many employment opportunities (Lansing and Flint); both townships are experiencing growth in number of rural residents; and both are vulnerable to the pressures of metropolitanization of urban fringe areas and the consequent decline in available farm acreage. Cash crop farming (corn, small grain, field crops) now predominates, although some dairy operations still manage to survive and prosper. Neither township contains an urban center and both are very similar, and basically "rural" in their community amenities. The social and economic characteristics of these two townships parallel each other, which is why they were selected.

Data Collection Procedures

Public records, including the 1977 township tax rolls, Agricultural Soil Conservation Service files and county platt books, along with informal interviews, served as the basis from which an overview of the study population and local situation was formulated. These sources provided information on the number, location, and size of land parcels owned by each household, the land valuation, and the ownership designation (mailing address). Neighborhood informants clarified and complimented these data by providing details about the type of farming being practiced by a particular farm family, major crops produced, land

tenure arrangements, sex and age composition of every household, and the non-farm occupations (if any) of adult members of each household. In all, 454 farm household units were enumerated in this manner; 243 in Venice township and 211 in Brookfield. Eventually, nine cases were excluded from the questionnaire survey phase (due to sale of land, etc.).

Cross referencing of these documents and information from informants revealed few dissimilarities in the basic agricultural structure of Brookfield and Venice townships. Average acreage owned by farm households is about 142 acres in Brookfield and 131 acres in Venice. Operator households tend to farm an average of 221 acres in Brookfield and 254 acres in Venice. Median acreage farmed by the 121 operator households in Brookfield and the 122 in Venice are nearly identical: 175 acres and 170 acres, respectively. Agricultural production activities in these townships are predominately market oriented.

American family farms have been undergoing structural changes in the 20th century, involving the consolidation of small farms and the expansion of larger farms (Johnson, 1969). Thus, we expected to find a wide variation of farm sizes in these communities, and in fact, we did. The acreage owned per farm household ranges from 10 to 800 acres, while the average operated ranges from 10 to as much as 1300 acres.

TABLE 1. COMPARISONS IN AGRICULTURAL STRUCTURE OF BROOKFIELD AND VENICE TOWNSHIPS

	BROOKFIELD	VENICE
Mean Acres Owned by Farm Operator Households	142	131
Mean Acres Operated by Farm Operator Households	221	254
Median Acres Operated by Farm Operator Households	175	170
Number of Farm Operator Households in Township	121	122

In an additional phase of data collection, lengthier interviews were conducted with a number of women whom informants described as actively engaged in their family farm operations. Our aim was to obtain insights into the kind of work done on their farms and how they themselves participated. From this and materials gleaned from prior studies of the division of labor on American family farms (see, Crawford, 1927; Wilson, 1929; Wasson, 1930; Blood and Wolfe, 1960; Wilkening and Bharadwaj, 1966; Sawer, 1973), a questionnaire was developed for a mail survey of our entire study population base (N=445). Farm and household division of labor was a major theme of this instrument. A total of 28 farm tasks and 28 household items were represented to tap work patterns of all household members along four dimensions: whether they 1) do the task alone and, presumably, have full responsibility for that particular activity, 2) do the task with another's help, but presumably

have major responsibility for the activity, 3) jointly perform the task with other(s) and, presumably, share the responsibility, or 4) help other(s) to do the task but, presumably, do not have the main responsibility for the activity. In addition, the questionnaire elicited information on the scale of farming, nature of the operation, farm management practices and household composition.

Approximately two months after the initial mailing, and after a prompting letter, questionnaire remailing, and personal hand written notes had been sent to all nonrespondents, personal contacts were initiated with all remaining families who were assumed to operate farms in Brookfield or Venice townships. A total of 298 households returned completed questionnaires. Nine provided information which indicated that they should not have been included in the original mailing (ownership of less than 10 acres, no longer in farming, etc). One household provided information that was judged to be internally inconsistent and unusable. Thus, 436 farm households constitute the basic study population and information was obtained from 288 (66%) via mail questionnaires.

Subsets of Concern

Our respondents come from a variety of family household structures. The most common, the nuclear family household (a male and female couple, with or without children), constitutes eighty-three percent of our sample. In "all

other" cases, an adult male or female lives alone (13%) or with an adult child (4%)[7].

While the above distinctions give some insight into family forms and the relationships which exist among family members, they do not suggest the specific relationships of households to agricultural production; the latter is crucial to our present undertaking. Perhaps the most important distinction relative to farming is whether the families are farm operator households (with at least one member engaged in operating the farm) or non-operator households (owning agricultural land, but not directly operating the farm themselves). The relationships of nuclear and all other family households to agricultural production (whether farm operators or not) is discussed below.

Non-Operator Farm Family Households

Non-operator households are associated with farming basically through their ownership (but not direct operation) of farm land. Although usually overlooked in studies of farm families, these households are a significant segment of the agricultural community. They often maintain close connections with the local agricultural situation by the renting, leasing, or sharecropping of their land. Farm management decisions are sometimes influenced directly by these landholding families; they may have a lot to say about cropping activities on their farms.

Non-operator households constitute 51% (N=148) of our study population (see Table 2). They own, on the average,

TABLE 2. FARM FAMILY TYPES IN BROOKFIELD AND VENICE TOWNSHIPS

Farming Status of Family and Scale of Farming Operation	Family Household Form: Nuclear Families	Family Household Form: All Other Families	TOTAL
Non-Operators (land is rented, etc.)	110	38	148
Farm Operators			
Hobby Farms	28	4	32
Small Farms	44	4	48
Larger Farms	52	8	60
TOTAL	234	54	288

about 82 acres per household. Only 21 are "absentee" non-operator households residing anywhere from six miles or more away; although a few live in other states, most are nearby, in the next county or township. Of the 148 non-operator farm families, 125 rent an average of 75 acres of their land to farm operator households. For the most part, it seems that the renters incorporate this land into cash cropping operations: of the 107 non-operator households who supplied this information, 77% rent land that is planted in corn, small grains, or soybeans. A few (6%) rent to dairy or livestock operations while only 15% allow their land to remain idle.

These non-operator households are predominately nuclear families (74%) in which husbands average 59 years in age and wives are 56 years. Other households, composed of single adults, make up an additional 23%, over half of which are elderly women. Three percent of the cases involve 2 or more unmarried kin (an additional 3% supplied incomplete information).

The significance of non-operator households to the social organization of agriculture should not distract us from the dramatically different lifestyles of non-operator and operator households. Both may reside on farms, but only members of operator households partake in the daily business of farm labor in their effort to maintain a viable farming operation.

Farm Operator Households

Since a major aim of this study is to examine the nature and extent of women's work involvement as related to various kinds of farming operations, we have classified farm enterprises into three types: hobby, small and larger farms. These types, we believe, appear to possess qualitatively distinct characteristics with respect to agricultural production in the mid-Michigan area. There is a total of 140 farm operator households, representing 49% of the study population. Let us consider some of their differences.

Hobby farms. "Hobby farms" tend to be relatively small in size (less than 50 acres) and gross less than $2500 from farm sales. Families who operate these farms do not depend upon income from the operation, although supplementing off-farm wages with home production (a large garden, dairy cow or beef) is a common practice. Farm investments are relatively small, both in capital and labor time; frequently, there is a recreational atmosphere associated with these farming activities (such as on horse farms, where hay is grown for a few horses). About 23% (N=32) of the "farm operator" households manage farms of this type.

The average hobby farm household owns 60 acres but operates only 25 acres of land. A remaining 21 acres, on the average, is rented out to area farmers. A majority are nuclear families (88%). They tend to be somewhat younger than the average nuclear family non-operator households:

husbands average 51 years of age and wives 48 years. Use of other farm laborers (aside from the husband and wife) is reported by 57% of these nuclear families.

Four hobby farms are run by other (non-nuclear) family households. On one of these farms, a woman lives alone and manages a small beef operation with the aid of a friend. She works off-farm nine months of the year but during the summer puts in up to 60 hours per week on her farm. Another woman, managing a hobby farm with her parents, utilizes a large amount of home production (garden and livestock) to supplement the meals of a number of elderly adults she lives with and cares for at her home. Two additional hobby farms are run by males; at least one is single[8]. Neither men utilize any form of hired help. The small amount of acreage each operates plus the small volume of sales (less than $2500 gross in 1978) makes the hobby farm label a reasonable one for them.

Small farms. Small farms may be easily contrasted with hobby farms by their operators' more obvious orientation toward generating profit from the farming operation. Acreage operated ranges from 50-300 acres and gross 1978 sales fall between $2500 to $20,000. Home use production, with the exception of gardens, is not as common a practice as on hobby farms; raising animals for home consumption is rather rare. Small farms are managed by 34% (N=48) of our farm operator households.

These small but commercially oriented farm operator

households, on the average, own 131 acres and operate 113 acres. The vast majority are, again, nuclear families (92%). Fifty-nine percent of the nuclear families who run small farms utilize other farm laborers (in addition to the husband and/or wife).

Four "other" family households manage small farms. Three cases are single males living alone; the other is a father-son unit. These households own an average of 154 acres and operate an average of 106 acres.

Larger farms. In contrast with hobby and small farms, larger operations are rather complex business organizations with heavy investments in their enterprises. Much capital and labor are expended to maintain a high level of total production. Most commercially oriented livestock operations, such as hog, dairy or beef farms, fall into this category. Generally, households managing larger farms operate 300 to 1000 acres with gross sales ranging from about $20,000 to above $100,000. Households managing larger farms make up 43% (N=60) of the farm operators.

The average amount of land owned by these 60 "large" farm households is 277 acres (more than double the average amount owned by households managing small farms). Mean acreage operated jumps to 396 acres; on the average, 216 acres is rented from neighbors. Most of these households (88%) are nuclear families (N=52). Farm laborers (other than the husband or wife) are an important factor in 83% of the cases.

A few of the larger farms are managed by "other" family households (N=8). There are three mother-adult son units, plus one brother and sister, one father and daughter, and one father and son situation. The two other cases are males living alone. The average acreage owned by these 8 families is 177; they operate an average of about 297 acres.

Foci of Attention

Women's relationship to agriculture, we expect, varies in terms of household form and household's relationship to agricultural production. Our present analysis is mainly concerned with women from households having direct ties to agricultural production (i.e., operator households). In addition, we feel it is necessary to take into account the family household situation as a criterion for comparison. Since by far the most common type of farm operator household is a nuclear family unit, we have elected to focus our attention on the work involvement of farm women in nuclear family, farm operator households (N=124). The exclusion here of women from "other" family and non-operator households is not meant to imply that these cases are any less interesting, nor that the work role of these women are of lesser importance to America's agriculture. It does imply, however, that their relationships to agricultural production are more variable and qualitatively distinct from that of farm women in nuclear family, operator households. The later, of course, is the more "typical" circumstance; only a total of 7 farm operator households with adult female

members are being excluded from more detailed analysis.

The methods by which we measure the work participation of these 124 farm women and operationalize factors which may influence their involvement are offered below.

Study Variables

We shall examine relationships among three main dimensions of work involvement by farm women: 1) participation in doing farm tasks, 2) performing household tasks, and 3) working off-the-farm. In addition, three scale of farming operation types (i.e., hobby, small and larger farms) are taken into account. Further, the effects of 1) stage in family life cycle, 2) husband's off-farm employment, 3) availability of other farm laborers, and 4) nature of farming enterprise, will be considered. The study variables are specified by measures derived from responses to the mail questionnaire survey, as noted below.

Farm Task Participation

A farm task participation scale was constructed to measure the breadth and depth of involvement by farm women in work on their farms. The farm task participation score (FTP) is based upon 28 item-specific responses to a general question: "Who normally does or helps with farm tasks on your farm?" The "breadth" of a woman's participation is reflected in the score by the number of tasks in which she engages. The "depth" of her involvement is tapped by the sum total of the 28 items, weighted according to degree of participation. Weightings were assigned as follows:

4 = Performs task alone
3 = Does task with aid of other(s)
2 = Jointly performs task with other(s)
1 = Does task as aide ("helper") of other(s)
0 = Does not do task (or task is not done on her farm)

Each woman's farm task participation score is calculated by summing the 28 item-specific, weighted responses, dividing by the total number of tasks reported as done on that particular farm multiplied by four (the highest possible participation score per item) and multiplying the result by 100 (to get rid of the decimals). Thus:

$$FTP = \frac{\text{Sum of the weighted participation scores of each of 28 farm tasks}}{\text{Total number of tasks reported done on that farm} \times 4} \times 100$$

The farm task items included in this battery are:

Plan cropping schedule	Minor machinery repair
Prepare fields for planting	Major machinery repair
Plant small grains	Fix fences
Plant corn, soybeans	Plant vegetable garden
Apply fertilizer	Tend vegetable garden
Apply pesticides/spray	Pay farm bills
Cultivate fields	Do farm bookkeeping
Combine small grains	Order farm supplies
Harvest corn, soybeans	Feed livestock, pigs
Cut, put up hay	Do the milking
Check market prices	Clean milking parlor
Haul grain to elevator	Clean the barns
Buy, get machine parts	Clean the feeders
Buy farm equipment	Care for young stock

We divide the sum of a woman's involvement in the 28 tasks by the total tasks done on her farm, so that the farm task participation scores can yield reasonably comparable information for women on farms where there are only slight differences in the number of tasks being performed. An

example may serve to illustrate this point: A woman who does 6 tasks "as an aide" on a farm where all 28 tasks are normally done would receive a score of 5.4; the same six tasks done "as an aide" on a farm where 26 of these tasks are normally done would yield a score of 5.8. In contrast, a woman aiding in 6 tasks on a farm where only 20 tasks are normally done would obtain a score of 7.5.

Although the above scores do not differ widely, they provide an example of the "relative" nature of the FTP score. The second woman in the above example obtains a higher score than the first because of the greater breadth of her involvement relative to the number of tasks normally done on her farm. Although by no means exactly comparable from situation to situation, the farm task participation score offers a useful overview of a woman's involvement in farm work. The score will be interpreted with respect to each particular type of farming operation, since within these groups there is a similar range of farming activities and task requirements. This variable is treated dichotomously; women with high FTP scores will be compared with women obtaining lower scores, but only relative to a given kind of farm scale.

In a few instances, we employ a farm task participation score for each of the 28 selected farm tasks. This score is obtained by summing each woman's weighted response for the particular task, dividing by the total number of farms reporting that task as done, multiplied by four (the highest

possible participation score per farm) and multiplying the result by 100. This item score is also interpreted only with respect to each particular type of farming operation.

Household Task Participation

Responsibility for housework has consistently been shown to fall almost completely upon the shoulders of women (Oakley, 1974; Vanek, 1972; Lopata, 1971). Thus, the extent and variabilities, if any, of women's participation in household tasks should be an important element in trying to assess women's direct involvement in the productive activities on family farms. Degree of household task participation (HTP) is measured by 28 item-specific responses to the general question: "Who normally does or helps with household tasks in your home?" The battery of 28 items, although ranging from food preservation to lawn care, does not include aspects of childcare. The household task items are:

Fix breakfast	Wash windows
Cook dinner	Ironing
Wash daily dishes	Clean the furnace
Set dinner table	Mend clothes
Make clothes	Repair small appliances
Baking	Put in window screens
Canning	Tend flower garden
Freezing garden produce	Tend vegetable garden
Dust furniture	Carpentry repairs
Plumbing work	Mow the lawn
Vacuum	Yard work
Mop the floors	Pay household bills
Clean the bathroom	Dispose of garbage

A household task participation score is obtained by dividing the total number of household tasks each woman does

(either alone, with help, or jointly) by the total number of household tasks normally done in her home and multiplying the result by 100:

$$HTP = \frac{\text{Number of household tasks woman does}}{\text{Number of tasks normally done in her home}} \times 100$$

The household task participation score is a qualitatively different variable from the farm task participation score. The breadth of a woman's participation in housework is, in a general manner, reflected by this score; the depth of her involvement, however, is not accounted for. This rather gross measure of housework activity, we believe, yields a useful and reasonably valid estimate of degree of housework involvement since the vast majority of women in our study population, and for that matter throughout rural America, are the main managers and performers of household tasks, although sometimes they get some help from spouse and children. For present purposes, this variable is bifurcated. Within each farm type (hobby, small and larger) women whose household task participation score falls in the upper half of the score range will be contrasted with those in the lower half.

Off-Farm Employment

Off-farm employment by one or more household members was characteristic of 92% of American farm families as early as 1973 (Crecink, 1979). An adult's availability for farm work and housework may be influenced in no small measure by his or her commitments to off-farm work. From responses to

a series of questions we were able to determine whether the adult male or female works off-farm. Full time, part-time, year-round or seasonal employment is regarded, for present purposes, as regular off-farm work; only temporary jobs are excluded. The two variables we use to study the effects of off-farm employment are treated dichotomously: 1) wife does or does not work off-farm regularly; and 2) husband does or does not work off-farm regularly.

Stage in Family Life Cycle

Each stage in the family life cycle creates demands upon and generates expectations for the adult members of a farm family which may affect their on-farm and off-farm work roles (Glick, 1955). The presence of a young child in the nuclear family household, for example, may restrict a woman from doing off-farm work; in turn it may provide her with the flexibility to work on the farm (Wilkening and Ahrens, 1979). As an indicant of stage in family life cycle, we will consider age of the youngest dependent child at home. This variable is treated as a dichotomy: the "early stage" is indicated by the presence of a child under 18 at home; the "later stage" is indicated by no children under 18 at home. Only three households (one operating a larger farm and two operating small farms) do not fit this dichotomy well. These couples are young and childless; they are excluded from this phase of our analysis because their small number precludes meaningful comparison across the other life cycle stages.

Use of Other Farm Laborers

The presence of other farm workers in addition to the married couple (whether paid laborers or unpaid adult family members) may allow the husband and/or wife to decrease his or her participation in farm work. The use of other farm help is ascertained by responses to a complex question concerning household structure and to a specific question: "In addition to members of your household, do any other persons help with or work on this farm?" Again, we are referring to hired farm workers (full and part-time) as well as any adult household members, including children over 18 and not in school, who put in more than 6 hours per week on the farm operation. On hobby and small farms, we simply consider the use or non-use of such farm labor. Since the overwhelming majority (83%) of larger farms use other farm laborers, differential effects of having seasonal help and year-round aid on larger farms is considered.

Nature of Farming Enterprise

The major kind of agricultural enterprise on a farm influences the potential amount of labor time required, seasonally and from day to day. Thus, it undoubtedly may affect the farm wife's breadth and depth of involvement in work on the farm. For example, it is well known that livestock operations, such as dairy farms, demand highly intensive, routinized, daily time imputs whereas the time demands of cash cropping operations (such as corn, soybeans and small grains) are more irregular. The planting and

harvesting of cash crops, of course, places heavy seasonal work loads on practically all farm families.

Nature of farming enterprise is ascertained from responses to the question: "What are the main agricultural enterprises on your farm?" Classification is in terms of the main enterprises found in the mid-Michigan area: 1) livestock operations, including dairy, beef, hogs, sheep and horse farms and 2) cash crop farms, such as hay, corn, soybeans, small grains, potatoes, navy beans and garden crops[9].

Relationships among the study variables are established through percentage differences and simple correlations. Yules's Q is utilized as a measure of association. All statistical analyses are made with help from the Statistical Package for the Social Sciences (SPSS) (Nie, et al., 1975).

Summary

Through the use of neighborhood informants and public documents, all farm owner and/or farm operator households in Brookfield and Venice townships were enumerated. A mail survey questionnaire was sent to each household. The instrument was designed to gather details about the household's division of labor, characteristics of the farm, and the farming practices. A total of 288 (66%) units returned information via the questionnaire. Distinctions were made between two forms of family households (nuclear and all other) and two household farming statuses (farm operators and non-operators). Our comparisons of farm

women's work involvements will take into account both of these elements of the household situation, in addition to the scale of farming operation. Only women in nuclear family, operator households (N=124) will be considered in the analysis in the following chapter.

CHAPTER III

DATA ANALYSIS AND FINDINGS

The preceding chapter gave an introductory overview of the social organization of agriculture in the two mid-Michigan townships under consideration, and a brief description of our technique for data collection. From information gathered through mail survey questionnaires, we delineated the salient characteristics of the predominant household forms (nuclear and all others) and the farming status of households (farm operators and non-operators) found in these areas. Our basic research interest is focused on women living in households directly engaged in agricultural production (i.e., farm operator households). Because family household form may affect a woman's work involvements, and because there are too few cases of "other" kinds of family households (N=7) to warrant systematic analysis, we shall deal only with nuclear family, farm operator households (N=124) in this chapter.

Results are reported in two ways. To begin with, some general social organizational characteristics of these 124 farm family households are examined, such as amount of time

given to farm work, range of household and farm tasks, and incidence of off-farm employment. We consider differences in the households' patterning of these activities by scale of farming operation. Secondly, the situational factors of stage in family life cycle, use of other farm laborers, and nature of farming enterprise are explored in order to assess variations in women's work involvement on each kind of farm.

Social Organizational Characteristics of Farm Operator Households

Farm Work Hours

One of the distinctions that can be made between hobby, small and larger farms is in total amount of farm work hours invested by the household. Our questionnaire asked about farm work hours per week. The answers we received are estimates by each respondent (any adult household member) as to the average time spent doing farm work by the various household members during both the busy growing season (usually late spring, summer and early fall) and the slower winter season. Inherently, the answers are subjective perceptions of time devoted to farm work and are, no doubt, affected by individual biases. Collapsing responses into a few large categories, however, seemed to provide a useful and reasonably valid means of making comparisons between different situations.

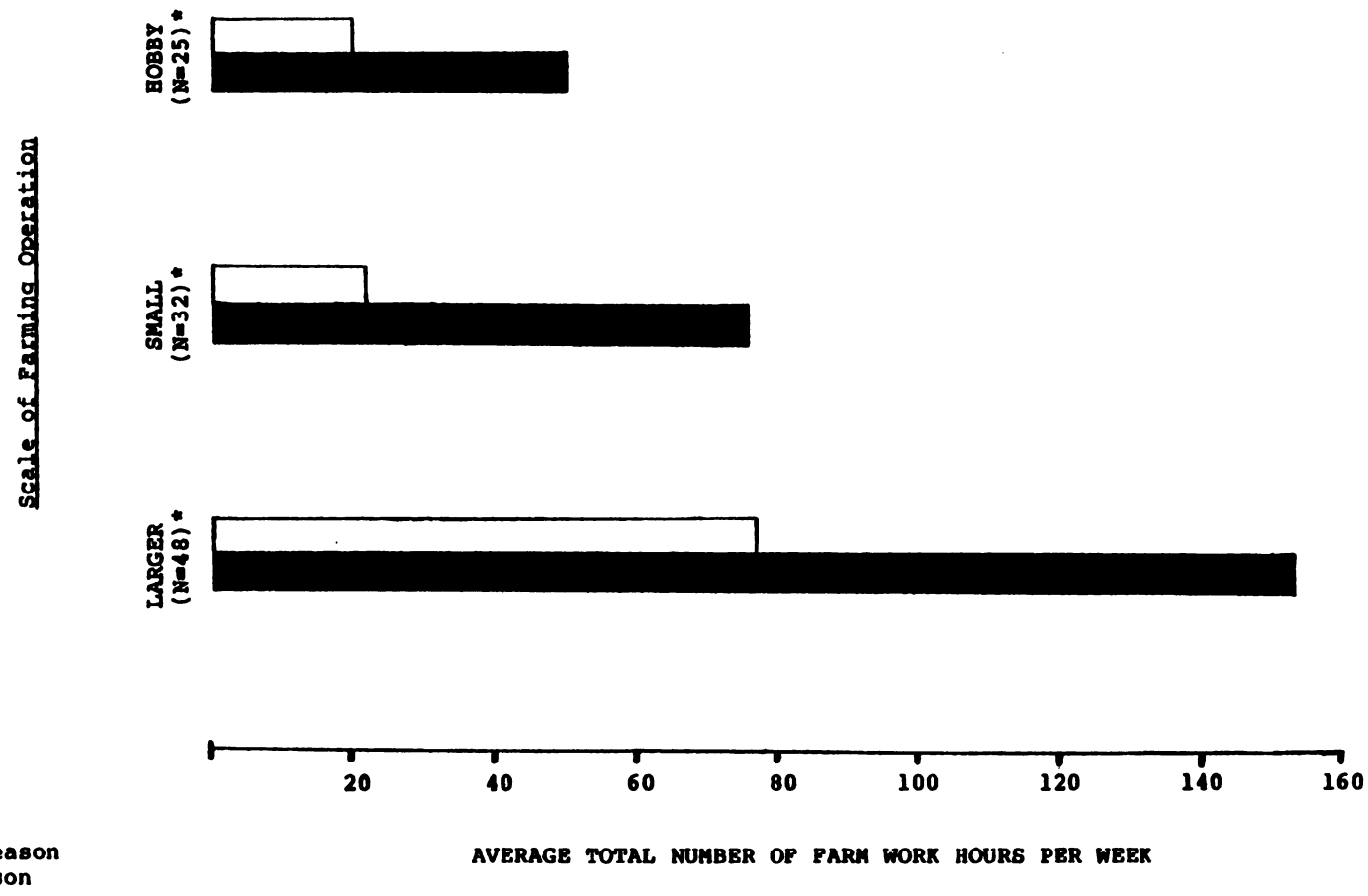
We found, not surprisingly, that families on larger farms invest the largest total number of hours per

household. Families on small farms do not invest as much, and families on hobby farms put in far fewer total hours on the average (see Figure 1). Total hours of farm work per week during the busy season ranges from an average of 48 for hobby farms to 75 for small and 152 for larger farms. The pattern changes somewhat during the slower season: hobby and small farms average a similar number of hours (19 and 22, respectively), while larger farms average 76 hours.

The involvement of children in the farming operation does not seem to affect the observed pattern of increasing involvement across farm types, since busy season farm work hours of husband and wife bear the same characteristics as above (see Table 3). The majority (82%) of couples on hobby farms put in 6 to 60 hours of farm work per week, while most (86%) couples on small farms work 20-100 hours; couples on larger farms are inclined toward even more total hours per week (60-100 hours). The trend is consistent and clear: persons on larger farms devote the most time to farming (in total hours), followed by those on small and hobby farms.

In much the same way that total hours of work involvement by a household varies with size of farm, the pattern of increasing participation by women on larger as compared with small and hobby farms also varies (see Figure 2). Approximately 53% of the women on hobby farms spend 6 to 20 hours per week doing farm work in the busy season and an additional 15% work between 20 and 60 hours. One half of the women on small farms work at least some hours each week

FIGURE 1. AVERAGE TOTAL NUMBER OF FARM WORK HOURS PER WEEK BY HOUSEHOLD, BY SCALE OF FARMING OPERATION



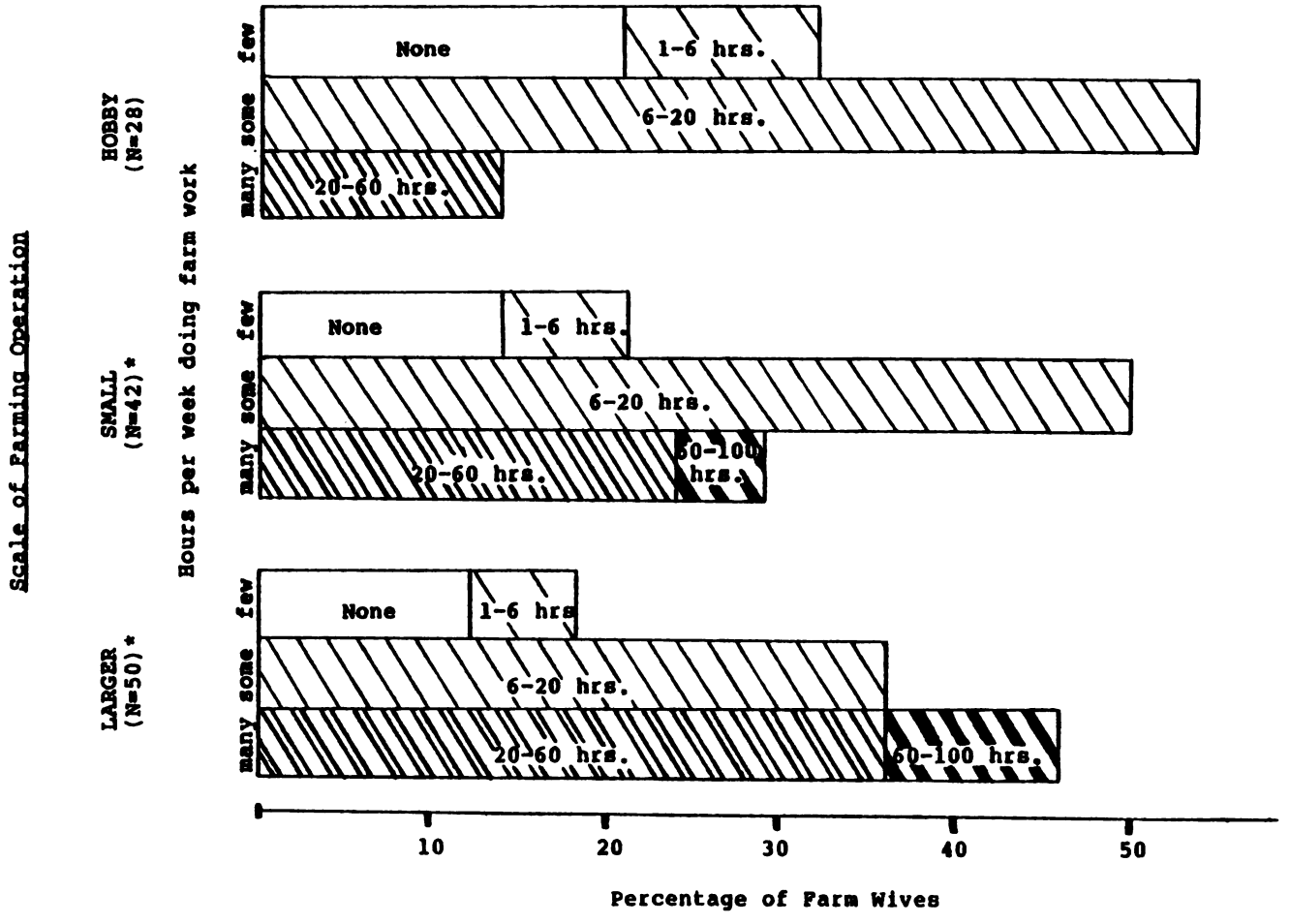
*A few cases are omitted from the base number due to missing information.

TABLE 3. FARM WORK HOURS PER WEEK BY HUSBANDS AND WIVES DURING THE BUSY SEASON, BY SCALE OF FARMING OPERATION (Percentage)

	Scale of Farming Operation		
	HOBBY (N=28)	SMALL (N=41)*	LARGER (N=50)*
Farm Work Hours Per Week by Husbands and Wives			
6-20 hours	36%	7%	0%
20-60 hours	46	52	12
60-100 hours	14	34	50
over 100 hours	4	7	38

*A few cases are omitted from the base number due to missing information.

FIGURE 2. HOURS OF FARM WORK PER WEEK BY WOMEN DURING THE BUSY SEASON, BY SCALE OF FARMING OPERATION



*Number of cases differs from original base number due to missing information.

(6-20 hours) while 28% put in many hours (23% work 20-60 hours and 5% work over 60 hours). But, in contrast, most of the women on larger farms take on a heavy work load each week (36% work 20-60 hours; 10% work 60-100 hours).

In considering the total number of hours devoted to busy season farm work by both husband and wife, it is interesting to note that women on hobby farms tend to contribute about 27% of these total farm work hours, women on small farms about 24% and women on larger farms 23% (see Table 4). In other words, these three categories of women contribute distinctly different amounts of time to farm work, as we observed earlier, but when compared with the total number of hours expended by their husbands and themselves, they all average roughly the same proportional contribution (approximately 25%). This finding points to the possibility of a "common role" for many farm women, or a norm of "role-sharing" on family farms, which may be a catalyst for expansion or contraction of women's farm work time, depending upon the scale of their families' farming operation. Degree of participation within each category does differ greatly, though, as is obvious by the large standard deviations (roughly 20%) from these means. In a few cases, as much as 67%, 60% and 70% of the busy season farm work hours is provided by women on hobby, small and large farms, respectively; in all three kinds of farming situations, of course, there are some women who never engage in farming.

TABLE 4. PERCENTAGE CONTRIBUTION OF WIFE TO TOTAL FARM WORK HOURS OF HUSBAND AND WIFE, BY SCALE OF FARMING OPERATION AND SEASON OF YEAR

	Scale of Farming Operation		
	HOBBY*	SMALL*	LARGER*
BUSY SEASON			
Mean	27%	24%	23%
Standard Deviation	20	20	17
Maximum	67	60	70
	(N=21)	(N=27)	(N=43)
SLOW SEASON			
Mean	25	18	21
Standard Deviation	29	23	20
Maximum	100	80	70
	(N=15)	(N=22)	(N=36)

*A few cases are omitted from the base number due to missing information.

Whether farm work is a year-round activity for women or an activity done primarily during the busy season is also a question that merits consideration. As our criterion for "doing farm work" we have used a minimum of 6 hours per week. Table 5 shows that women on hobby farms are the least likely to engage in farming; of the 68% who do some farming, over half (39%) work only during the busy season. A somewhat greater proportion of women on small farms (79%) do at least some farm work, mainly during the busy season. Women on larger farms are more inclined to work year-round (46%); the vast majority (85%) puts in over 6 hours per week during the busy season.

All farm husbands do at least some farm work, and they tend to average more weekly hours of farm work than do women on each particular kind of farm (see Table 6). The busy season farming activity of husbands is patterned similarly to that of their wives; higher levels of activity (measured in hours) are associated with larger farms. For men on hobby farms the norm is 6 to 20 hours per week while on small farms it is 20-60 hours, and on larger farms it is 60-100 hours.

The pattern of farm work activity of men (see Table 7) indicates that the vast majority of larger farms are year-round enterprises; 88% of the men on larger farms are engaged in farming throughout the year. Only slightly over half of the men on small farms, on the other hand, work year-round (57%); hobby farms tend to be mainly a busy season activity (57%).

TABLE 5. PERCENTAGE OF WOMEN DOING SOME FARM WORK, BY SEASONAL PATTERN OF ACTIVITY AND SCALE OF FARMING OPERATION

	Scale of Farming Operation		
	HOBBY (N=28)	SMALL (N=44)	LARGER (N=52)
Seasonal Pattern of Activity			
Year-Round Activity	29%	18%	46%
Busy Season Only	39	61	39
Slow Season Only	0	0	2
No Farm Work	32	21	13

TABLE 6. FARM WORK HOURS PER WEEK BY HUSBANDS DURING THE BUSY SEASON, BY SCALE OF FARMING OPERATION (Percentage)

	Scale of Farming Operation		
	HOBBY (N=28)	SMALL (N=41)*	LARGER (N=52)
Farm Work Hours Per Week by Husbands During the Busy Season			
6-20 hours	61%	15%	0%
20-60 hours	32	68	23
60-100 hours	7	17	65
over 100 hours	0	0	12

*A few cases are omitted from the base number due to missing information.

TABLE 7. PERCENTAGE OF HUSBANDS DOING SOME FARM WORK, BY SEASONAL PATTERN OF PARTICIPATION AND SCALE OF FARMING OPERATION

	Scale of Farming Operation		
	HOBBY (N=28)	SMALL (N=44)	LARGER (N=52)
Seasonal Pattern of Activity			
Year-Round Activity	43%	57%	88%
Busy Season Only	57	43	12

Comparatively, it seems then that families on larger farms in general put in more farm work hours than families on either small or hobby farms. Both husbands and wives on larger farms work longer hours and are far more likely to do so year-round. And, although all husbands in this particular case are reported as doing some farm work, the same is not true for their wives. Wives on larger farms are the most likely to participate in farm work. These findings clearly indicate that scale of farming operation does indeed have important ramifications for the pattern of farm work activity by women, at least as suggested by the amount of time spent doing farm work. Let us now see if any differences exist in farm and household task involvement of women on these three types of farms.

Farm and Household Task Performance

As suggested in Chapter II, differences in work patterns on these three kinds of farms may also be shown by contrasting the average number of specified tasks (household and farm) done per household. Clearly, the fewest number of this sampling of specified farm tasks (18) is performed on hobby farms; small farms average a few more (21) while larger farms average the most (24). Women on hobby farms do an average of 3 of the specified farm tasks and tend to help with 3 more (see Table 8). Women on small farms are inclined to take on a larger number of tasks, 5, and to help with 3. Women on larger farms also do 5 farm tasks, on the average, but help with only 2. The maximum number of tasks

TABLE 8. NUMBER OF SELECTED FARM TASKS PERFORMED BY WOMEN AND PER HOUSEHOLD, BY SCALE OF FARMING OPERATION

	Scale of Farming Operation		
	HOBBY (N=27)*	SMALL (N=42)*	LARGER (N=51)*
Number of Farm Tasks Done Per Household			
Mean	18	21	24
Standard Deviation	6	3	3
Number of Farm Tasks Done by Women (alone or with help)			
Mean	3	5	5
Standard Deviation	4	3	4
Maximum	15	16	18
Number of Farm Tasks Women Help With			
Mean	3	3	2
Standard Deviation	3	4	2
Maximum	9	15	9

*A few cases are omitted from the base number due to missing information.

done by women on each of the three kinds of farms (and taking standard deviations of 3 and 4 into account) suggests a variety of levels and patterns of involvement is hidden within these averages.

The average number of specified household chores (26) normally carried out is identical among the three farm family types (see Table 9). Only minor differences exist in the pattern of household work involvement by these women. Women appear to do 73% of the household tasks on hobby farms, 81% on small farms and 77% on larger farms.

The distribution of farm and household task participation scores for these categories of women (see Table 10) follows a pattern similar to that noted in Tables 8 and 9. For present purposes, we can interpret a FTP score of 100 to mean that women are the only ones doing any of the farm or household tasks done on each particular type of farm. Similarly, a FTP score of 50 would imply that women have responsibility for and perform the farm or household tasks done on their farms half of the time (a husband, son, daughter, or hired hand may do some of the jobs at other times). Thus, the scores reported in Table 10 suggest that women are doing approximately 19% of the farm tasks and 74% of the household tasks done by their families on their particular farms. On the average, there is little variation in either the farm task or household task participation of farm women with respect to the scale of farming operation.

Table 11 provides an overview of the specific farm

TABLE 9. NUMBER OF SELECTED HOUSEHOLD TASKS PERFORMED BY WOMEN AND PER HOUSEHOLD, BY SCALE OF FARMING OPERATION

	Scale of Farming Operation		
	HOBBY (N=25)*	SMALL (N=43)*	LARGER (N=52)
Number of Household Tasks Done Per Household			
Mean	26	26	26
Standard Deviation	2	2	2
Number of Household Tasks Done by Women (alone or with help)			
Mean	19	21	20
Standard Deviation	4	2	3
Maximum	24	25	26
Minimum	9	10	10

*A few cases are omitted from the base number due to missing information.

TABLE 10. FARM AND HOUSEHOLD TASK PARTICIPATION SCORES OF WOMEN, BY SCALE OF FARMING OPERATION

	Scale of Farming Operation		
	HOBBY*	SMALL*	LARGER*
Farm Task Participation Scores of Women			
Mean	18.8	19.4	18.0
Standard Deviation	16.9	10.3	10.3
Maximum	66.7	41.3	43.8
	(N=27)	(N=42)	(N=51)
Household Task Participation Scores of Women			
Mean	71.2	77.8	76.7
Standard Deviation	13.0	12.6	12.7
Maximum	88.0	100.0	100.0
Minimum**	32.1	38.5	43.5
	(N=25)	(N=43)	(N=52)

*A few cases are omitted from the base number due to missing information.

**Minimum farm task participation scores for women are not listed because, as mentioned in the text, on each kind of farm there are some women who never engage in farming.

TABLE 11. RANK ORDER OF SELECTED FARM TASKS IN WHICH WOMEN ARE MOST ACTIVELY ENGAGED
(as Measured by Farm Task Participation Score for Each Selected Task)*
BY SCALE OF FARMING OPERATION

Scale of Farming Operation

HOBBY (N=27)**	SMALL (N=42)**	LARGER (N=51)**
1. Pay farm bills (53.85)	1. Plant garden (71.71)	1. Pay farm bills (71.57)
2. Tend garden (50.96)	2. Tend garden (69.74)	2. Bookkeeping (69.50)
[3. Milking (50.00)***]	3. Bookkeeping (52.44)	3. Tend garden (61.90)
[4. Clean milking parlor (50.00)***]	4. Pay farm bills (52.38)	4. Plant garden (60.80)
5. Plant garden (48.08)	5. Check market prices (29.49)	5. Buy, get machine parts (30.88)
6. Bookkeeping (43.75)	6. Order farm supplies (22.50)	6. Check market prices (27.55)
7. Care for young stock (27.78)	7. Buy, get machine parts (21.43)	7. Order farm supplies (23.00)
8. Feed livestock (27.08)	8. Feed livestock (20.83)	8. Clean milking parlor (20.31)
9. Order farm supplies (23.86)	9. Cut, put up hay (16.67)	9. Care for young stock (20.16)
10. Buy, get machine parts (23.00)	10. Prepare fields for planting (14.29)	10. Haul grain to elevator (18.75)

*Farm task participation score for each selected task is noted in parentheses.
**Cases differ from original base number due to missing information.
***Actually, only two hobby farms perform these tasks; hence, the ranking here, although valid, is somewhat misleading.

tasks that women do. For each selected task, a FTP score of 100 should be interpreted to mean that women are the only ones doing that particular task on farms where that task is normally done. From the farm task participation scores for each selected task, we know that paying farm bills, bookkeeping, and planting and tending a vegetable garden are tasks performed over 50% of the time by women. These are also tasks generally done by women on hobby farms, although the relative participation of women in these particular tasks is slightly less on hobby farms. Ordering farm supplies and buying and getting machine parts are also common tasks performed by women on all three kinds of farms.

The degree to which farms rely on certain, integral tasks that women frequently do may be investigated further by considering those tasks commonly done by a large proportion (say, at least 80%) of all farms of a given scale (see Table 12). On hobby farms, we find that women are frequently involved in 6 out of 10 of these common tasks. On small and larger farms, we find that women also are involved in 8 out of 19 (42%) and 9 out of 20 (45%) of these common farm tasks. Relatively speaking, hobby farms appear somewhat more dependent upon the active participation of women doing farm chores. The fact that hobby farm families are inclined to emphasize production for home consumption may help to explain this finding.

In sum, although these three kinds of farming operations manifest different patterns of farm chore

TABLE 12. SELECTED FARM TASKS REPORTED AS NORMALLY DONE ON OVER 80% OF FARMS, BY SCALE OF FARMING OPERATION

Scale of Farming Operation

HOBBY (N=27)**	SMALL (N=42)**	LARGER (N=51)**
*Plant garden (96%)	*Prepare fields for planting (100%)	Prepare fields for planting (100%)
*Tend garden	Apply fertilizer	Apply fertilizer
*Pay farm bills	*Buy, get machine parts	*Buy, get machine parts
*Buy, get machine parts (93%)	Buy farm equipment	Buy farm equipment
*Bookkeeping (89%)	Minor machine repairs	Minor machine repairs
Minor machine repairs (85%)	*Pay farm bills	*Pay farm bills
Plan crop schedule (82%)	Plan crop schedule (98%)	Plan crop schedule
Check market prices	Plant corn, soybeans	Plant corn, soybeans
Major machine repairs	Harvest corn, soybeans	Apply pesticides/spray
*Order farm supplies	*Bookkeeping	Harvest corn, soybeans (98%)
	Apply pesticides/spray (95%)	*Bookkeeping
	Cultivate	*Order farm supplies
	*Order farm supplies	*Plant small grains (96%)
	Combine small grains (93%)	*Check market prices
	*Check market prices	*Haul grain to elevator (94%)
	Plant small grains (91%)	Major machine repairs
	Haul grain to elevator	Cultivate (92%)
	*Plant garden	Combine small grains (90%)
	*Tend garden	*Plant garden (86%)
		*Tend garden (82%)

Percentage of farms reporting task as normally done is reported in parentheses.
*Denotes task listed in Table 11 (i.e., "tasks in which women are most actively engaged").
**Cases differ from original number due to missing information.

organization in terms of the 28 tasks we selected for study, the women on these farms participate in a similar number of tasks, and it appears that, by and large, they engage in many of the same kinds of tasks: namely, paying farm bills, bookkeeping, and planting and tending a garden. Women's household activity pattern, also similar for the three kinds of farming operations, show that women perform about 74% of the household tasks done in their homes. These summary comments, of course, reflect average tendencies.

Off-Farm Employment

As one might expect, families engaged in hobby farming are the least likely to emphasize agricultural production and are the most likely to manifest an active degree of off-farm employment (86% report at least one household member working off-farm). Families managing small farms are only slightly less likely (75%) to report at least one adult working off-farm, and although less, a surprisingly large segment (60%) of the bigger farms report off-farm work (see Table 13). A rather typical arrangement on hobby and small farms appears to be two adults working off-farm (43% and 37%, respectively); this is more rarely the case for larger farms (21%) who most often have one adult member of the household, if any, working off-farm (33%). The extent to which off-farm incomes reinforce the farming operation and supplement farm income is unclear; adult children working off-farm are included in our data here and often their incomes are quite separate from that of their parents.

TABLE 13. NUMBER OF ADULT HOUSEHOLD MEMBERS EMPLOYED OFF-FARM BY SCALE OF FARMING OPERATION (Percentage)

	Scale of Farming Operation		
	HOBBY (N=28)	SMALL (N=44)	LARGER (N=52)
Number of Adult Household Members Employed Off-Farm			
None	14%	25%	40%
One	39	25	33
Two	43	37	21
Three	4	11	4
Four	0	2	2

A clearer representation of supplementary off-farm incomes probably most directly available to these farm family households, that of the husband and wife, is reported in Table 14. Extent of off-farm employment, of course, appears somewhat reduced for the three farming situations as compared with Table 11; nevertheless, couples from 79% of the hobby, 70% of the small and 52% of the larger farms have at least one spouse working an off-farm job.

In hobby farm households with at least one spouse employed off-farm, it is generally the husband who is working off-farm (see Table 14); in 36% of the cases, however, hobby farm households obtain off-farm income from both husbands and wives. Small farm operations primarily receive off-farm wages from both spouses (34%) or only the husband (32%). Households managing larger farms, however, are more likely to get off-farm incomes (if any) from only the wife (25%); in 13 percent of the cases they get wages solely from the husband and in 14% from both spouses. On these three kinds of farms, women manifest similar rates of off-farm employment (39%); but on the larger farms women have a substantially different role and perhaps added burden since many are the sole source of off-farm income. This finding is particularly interesting and especially important when one recalls that women on larger farms are also far more involved in farm work (measured in hours) than their counterparts on smaller farms.

TABLE 14. OFF-FARM EMPLOYMENT PATTERN OF HUSBAND AND WIFE, BY SCALE OF FARMING OPERATION (Percentage)

Off-Farm Employment Pattern of Husband and Wife	Scale of Farming Operation		
	HOBBY (N=28)	SMALL (N=44)	LARGER (N=52)
Only Husband Works Off-Farm	39%	32%	13%
Only Wife Works Off-Farm	4	4	25
Both Work Off-Farm	36	34	14
Neither Works Off-Farm	21	30	48
Under 65, husband is and probably has been full time farmer	(0%)	(10%)	(46%)
Under 65, husband is retired from off-farm job	(7)	(11)	(0)
Over 65, "retired"	(14)	(9)	(2)

Review of Situational Differences

The lifestyles of women on hobby, small and larger farms are clearly distinguished by unique patterns of work. Women on larger farms are the more likely to be doing any farm work (only 13% report little or no farm work as compared with 21% of the women on small farms and 32% on hobby farms), the more likely to be extensively involved in farm work (measured in hours), and the more likely to be working year-round on the farm. But even though women on larger farms spend many more hours at farm work than do other women, they do not engage in a much greater array of farm tasks than women on small or hobby farms. And, although as likely to be employed as other farm women, women on larger farms are the key, and frequently the only, source of off-farm wages for their households.

Distinguishing between scales of farming operations has proved to be a fruitful means by which to draw attention to some experiential differences between farm women in these rural Michigan townships. Still, many questions remain. For example, what are the determinants of variations in women's work participation (such as extensive versus marginal or little participation) within each group? Our inquiry now examines this question.

Pattern Variabilities

Hobby Farms

Several interesting relationships among the study variables were found relevant to the hobby farm segment. To

begin with, there is a strong association (Q=.74) between the degree of participation of women in farm tasks (measured by FTP score) and their household task activity (measured by HTP score). In other words, those women on hobby farms who are doing a lot of things on the farm also tend to be doing many household tasks. This finding may seem paradoxical and contradictory to common sense; it is reasonable to expect that high participation in one area, say farming, would result in a reduction in the time available to participate in other things, such as household work. One might also assume that a woman's participation in farm and household tasks would be affected by her employment off-farm; one generally regards time as a finite resource. However, our findings do not support this assertion; neither farm nor household activity levels vary in terms of off-farm employment. Of course, farm and household task participation scores are not intended to be direct measures of the amount of time and energy women devote to various work activities. Future research, utilizing techniques that are more sensitive to time and energy investments may find that some women are simply more efficient and can get a lot of things done in a short period of time.

Stage in the family life cycle seems to be a possible conditioning factor affecting the relationship between farm and household task participation for women on hobby farms. Little association between these two variables is observed for women with dependent children (i.e., children under 18

who live at home). In contrast, women in the later stages of family life manifest a very strong relationship between farm and household task participation: 73% exhibit highly industrious patterns of household and farm work, while 27% exhibit low levels of participation in both. Correlations between stage in family life cycle and participation in farming activities (.60) and in doing household tasks (.74) also suggest greater task involvement by women without dependent children at home (see Table 15). Since the majority (93%) of the dependent children in these study households are of school age, their work in the household and on the farm may be offsetting their mothers' potential participation. The use of other farm help appears to have little effect upon the doing of farm tasks or participation in household tasks by women on hobby farms.

The off-farm employment of "hobby farm" women--and nearly 40% work off-farm--is strongly linked with stage in family life cycle (.78). Women with dependent children at home have a greater tendency to be employed off-farm. Again, most of these children are in school during the year; this type of labor force participation follows national norms and really comes as no surprise. A more interesting pattern, we suggest, is the substantial relationship between women's off-farm employment and the dependence upon other farm help available to hobby farms (.62). Farm households with employed wives are more likely to make use of other farm laborers than are those where the wives do not work

TABLE 15. Q ASSOCIATIONS BETWEEN SELECTED STUDY VARIABLES, BY SCALE OF FARMING OPERATION

Relationships:	Scale of Farming Operation		
	HOBBY (N=28)*	SMALL (N=44)*	LARGER (N=52)*
Farm task participation of wife and:			
household task participation	.74	.60	.12
wife's off-farm employment	.09	.20	.05
stage in family life cycle	.60	.29	.25
husband's off-farm employment	**	0.00	**
use of other farm laborers[1]	.07	.20	.03
nature of farming enterprise[2]	---	---	.19
Household task participation of wife and:			
wife's off-farm employment	.09	.04	.06
stage in family life cycle	.74	.65	.84
husband's off-farm employment	**	.07	**
use of other farm laborers	.09	.25	.20
nature of farming enterprise	---	---	.58
Wife's off-farm employment and:			
stage in family life cycle	.78	.39	.26
husband's off-farm employment	**	.75	**
use of other farm laborers	.62	.01	.29
nature of farming enterprise	---	---	.30
Stage in family life cycle and:			
use of other farm laborers	.07	.44	.07

*In some associations, as many as 3-4 cases may be missing and thus are not included in the calculation.
**Distribution of cases is too skewed for meaningful analysis.
1.This variable is segmented into two dimensions with respect to hobby and small farms: 1) use of other farm laborers, and 2) no use of other farm laborers. In the larger farm context, this variable is dichotomized into: 1) use of seasonal laborers, and 2) use of year-long laborers (N=42).
2.This variable is considered only with respect to larger farms.

off-the-farm. A woman's income may provide the cash resources to hire some farm help in order to facilitate a "hobby" atmosphere for their operation. This explanation seems feasible when one considers, for example, that we observed a negligible relationship between off-farm work and the farm task participation of these women; this implies that a wife's employment off-farm does not necessarily increase farm labor needs on hobby farms.

In review, two relationships stand out as characteristic of women's work involvement on hobby farms. Firstly, younger women on hobby farms (i.e., those with dependent children) are more likely to work off-farm and are less likely to be highly active in either farm or household tasks. Clearly, children's impact upon farm women's work involvement needs to be assessed; our calculations suggest that offspring may indeed be a source of great influence. Secondly, women's off-farm work shows an interesting association with the practice of using farm help; this association seems not to be explained by what one might regard as greater farm labor needs resulting from the women no longer being able to do farm work.

Small Farms

Among women on small farms, as is the case on hobby farms, active participation in farm tasks appears directly associated with active participation in household tasks (.60). Unlike the hobby farm situation, however, stage in family life cycle manifests a barely moderate effect upon

level of involvement in farm tasks (.29). On the other hand, stage in family life cycle manifests a relatively strong effect upon level of involvement in women's household tasks (.65). Since virtually all (95%) of the dependent children on small farms are school-age, the lower level of household task involvement among these mothers may be due to the help provided by their children. The degree of participation of women in farm and household tasks is not affected much by the availability of other farm laborers, nor by the husband's or wife's off-farm work.

On these small farms, working off-farm is somewhat associated (.39) with stage in family life cycle, but not as strongly as in the case of women on hobby farms. Those in the later years (i.e., with no dependent children at home) are slightly more likely to be employed off-farm than are women in the later life stages on hobby farms, and, little less than one half of the mothers with dependent children work away from home. In contrast with hobby farm situations, the presence of other farm laborers is not associated with the fact of a woman's working off-farm.

The pattern of findings does not offer a clear picture for women on small farms as it did for women on hobby farms. One very important similarity is that women with high levels of involvement in household tasks also tend to be heavily involved in farm tasks. But, the influence of stage in the family life cycle is not as decided; its effects are distinct only for household task participation (i.e.,

younger women tend to manifest lower levels of household task activity). Further, younger women on small farms are slightly less inclined toward off-farm employment than women on hobby farms. In addition, it seems that neither the use of other farm laborers or the wife's pattern of employment off-farm have more than a weak influence on these women's farm and household task participation.

Larger Farms

In comparison with the activities of women on hobby and small farms, none of our study variables show any association with the level of farm task participation by women on large scale farms. Indeed, we even extended our search a bit by taking into account whether the farm is primarily a livestock or cash crop enterprise. There is only a slight indication, by percentage comparison of household and farm task participation scores, that a somewhat stronger association may exist for cash crop operations, but our small sample size precludes reliable interpretation of this.

With respect to the doing of household tasks, stage in family life cycle reveals a very strong association (.84). As on the smaller farms, women in the later years of marriage tend to be more actively involved in household tasks. Interestingly, women on the larger cash crop as compared with the larger livestock farms tend to do more in the household; reasons for this are not clear. One might expect women on dairy and beef farms to assume greater

responsibility for the farming activities and to be less industrious in their housework. Our findings, however, do not substantiate this reasoning. Further, we do not observe any effect from off-farm work on the farm task involvement of these women (.05) nor on the level of household activity (.06).

In the larger farm context, stage in family life cycle is weakly associated with off-farm employment (.26). Off-farm employment also is associated to some extent (.30) with the nature of the farming enterprise (livestock or cash crop). Women on dairy or livestock farms are a bit more likely to be employed off-farm than are women on the larger cash crop farms; perhaps cash resources for household and personal expenses are more of a problem on dairy/livestock farms. The relationship between type of farm laborers utilized (in this case, seasonal as compared with year-round) and women's off-farm wages is barely moderate (.29) and points in the direction of some association between the utilization of year-round labor and women working off-farm; this may be one more indication of the relative need for off-farm wages on large scale farms to help supplement the huge capital and labor investments and, of course, to provide a dependable cash flow into the home.

Aside from the strong association between stage in family life cycle and household task participation, few relationships among our study variables give hint to the forces affecting women's involvement in the work activities

on larger farms. Perhaps the need for more refined measures of women's participation is implied. Our findings suggest, however, that we should further explore the significance of women's wages from off-farm work in the management and sustenance of both farm operation and home.

The analysis offered in this chapter has attempted to ferret out some social organizational features of work participation on family farms through percentage comparisons of factors such as time involvement, farm and household task participation, and off-farm employment. Variations in patterns of women's work on each type of farm are explored through Q associations of the dichotomized study variables. Data presented here reveal the complexity of social forces influencing farm women's work participation. Although multivariate analysis of variables was performed, the relatively small number of cases and, consequently, the high percentage of empty and low frequency cells does not permit use of these findings, beyond percentage comparisons, in our interpretation. The following chapter provides an interpretive summary of our findings and suggests avenues for future consideration.

CHAPTER IV

SUMMARY AND GENERAL CONCLUSIONS

Research Problem and Approach

Students of the changing social organization of agriculture in America seek to understand a multitude of trends: the continuing decline of the farm population (currently 3% of the population (United States Census, 1979)); the patterning of farm consolidation and the prevailing emphasis upon large scale operations; and the growing reliance of family farms on off-farm incomes. These and associated trends, insofar as they persist, will have enormous consequence on the future of agriculture in the United States. Studies monitoring such changes in the structure of agriculture must be encouraged and facilitated; vital and difficult policy decisions are at stake. But research explorations into less apparent issues, such as the ways by which farm families cope from day to day with the pressures of farming, the vacillating economy, and the skills necessary to maintain feasible operations, can also provide insights of considerable importance and relevance.

Our focus here, in the present study, has been on the

contributions of women to the viability of family farms. Many previous studies of farm women's work involvements have shown that women engage in a variety of activities on their farms. Unfortunately, the literature on this topic suffers from numerous problems, such as poorly drawn samples and inadequate measures of work involvement.

The framework devised for the present study attempts to provide an innovative approach to some of the conceptual and methodological problems inherent in past research on this topic. The following three features are the backbone of our approach: 1) women's work involvements are examined from the perspective of a variety of different types of farms; 2) housework is treated as productive activity, which directly acknowledges the impact of housework on the economic maintenance of farms; 3) the multifaceted nature of farm women's involvement is portrayed through our attention to three areas of work (farm work, housework, and off-farm employment).

Two rural, mid-Michigan townships, Venice and Brookfield, are the sites for this study. In the initial phase of data collection, we obtained information from neighborhood informants and public documents about the agricultural setting and the 436 farm families who own and/or operate land in these areas. Subsequently, we sent a mail survey questionnaire to each farm family. Farm and household division of labor was a major theme of the inquiry. Information was also elicited on the scale of

farming, nature of the farming operation, farm management practices and household composition.

Two hundred eighty-eight (66%) farm family households returned usable surveys. Because of the wide diversity of respondents, we found it helpful to distinguish between family forms (nuclear and all other) and farming statuses of households (farm operators and non-operators) in these areas. For present purposes, we are mainly interested in women from households with direct and active ties to agricultural production (i.e., farm operator households). In addition, we feel that women's work involvement is likely to be influenced by their family situation (nuclear or other). We hold both these dimensions constant by including only women from nuclear family, operator households (N=124) in our analysis.

Study variables are derived from responses to the questionnaire. They include women's farm task participation, women's household task participation, off-farm employment of husband and wife, stage in family life cycle, use of other farm laborers, and nature of farming enterprise. Introduction of these variables into the analysis, by percentage comparisons and Q associations, led to a number of interesting insights about women's work on family farms.

We would like to understand the interrelationships between structural factors and motivations for women's participation in farm work, household work, and off-farm

employment. Our study, however, is not designed to pursue such an explanation; we postulate no causal variables. Instead, our goal has been to explore relationships among a set of study variables, and to elaborate these with insights derived from our discussions with farm women in the area, so that we might formulate questions for further inquiry. Let us now consider the findings and conclusions of our study, in summarized form, and their implications for future research.

Findings and Conclusions

The structural dimension "scale of farming operation," provides recognition of qualitatively different types of farming situations which significantly influence the amount of time women spend doing farm work. Scale of farming operation, however, seems to have relatively little to do with the range of farm or household tasks and responsibilities of farm women. Whether on hobby or larger farms, a woman's pattern of work in the home and on the farm is much the same. It is also clear that regardless of the size of farm, younger women tend to be less involved with household tasks than older women; although this may be due to generational differences of a normative kind, we believe it may be affected in no small measure by situational circumstances, some of which are discussed below.

Since stage in family life cycle does not help to explain variations in the farming activities of women on small or larger farms, the following possibility is

suggested: It may be that women on commercial farms (small or larger scale), with dependent children at home, nevertheless put in a good deal of time in farm work and must turn to their children for help with household tasks. Bookkeeping, paying farm bills, going to town for machine parts, ordering supplies (i.e., chores women often do) are not jobs normally assigned to children under 18. Some common household tasks, on the other hand, (such as washing dishes and cleaning) may be done by youngsters. But, by the time children are able to begin taking part in managerial activities, such as the kinds of tasks women often do, they are frequently out on their own, or in college, or holding full time, non-farm jobs. Accordingly, the range and level of farming activities by women may remain relatively steady over the years, while their household task participation may increase after dependent children leave home.

Another plausible explanation for the relatively weak association between the family life cycle variable and farm task participation for women on small and larger farms comes from the substantial proportion of adult offspring who reside in these households and who help with the farming operation (25% and 29%, respectively). These sons or daughters may be undertaking some of the common farm work duties of women who are in the later family life cycle stage. An otherwise high degree of participation in farm work in the later life cycle stage, as was found on hobby farms (and, by the way, only 7% of these households have

adult offspring residents who help with the farming) is perhaps, as a result, being suppressed. Unfortunately, the number of cases is so few that statistical analysis would be meaningless. These discussions are purely speculative, of course; our data are not longitudinal and we can merely suggest these as future avenues for investigation.

The importance of women's off-farm wages for the sustenance of the family farm operation is implied by a number of interesting associations. Consider the following: 1) a strong association between women's off-farm work and the use of other farm laborers on hobby farms; 2) the large degree to which women are the sole source of off-farm income on larger farms; 3) the moderate association for larger farms between the kind of operation (livestock or cash crop) and women's off-farm employment; and 4) the tendency for the use of year-round farm laborers and women's work off-farm on larger farms. These relationships appear even more significant in light of the fact that women's off-farm employment has only a negligible effect on their farm and household task participation.

Utilization of a research approach that acknowledges various spheres of women's work activities and takes into account the important dimension of farming scale, has enabled us to recognize that very real differences exist in women's experiences and work participation across three common types of farming operations in these two mid-Michigan townships. The relationships we uncovered suggest that

certain unique circumstances may be influencing the pattern of work activity by women on each kind of farm. In the next section, we discuss some questions which arise directly from the present study in addition to more general issues for research on women's work participation.

Questions for Further Inquiry

The finding that women seem to do much of the same kinds of tasks or pattern of farming activities on the three types of farms studied leads us to naturally ask, "Why?" Do farm women want to engage in other kinds of farm work? If so, why don't they? Are there barriers to women's participation in certain types of farm chores? If so, what is the nature of these constraints (i.e., are they institutional? ideological?)? In what ways do housework activities influence the extent of women's farm work involvement? How pervasive is this influence?

Another intriguing question arises from the finding that some women tend to exhibit high levels of both farm work and household work activity. How do they accomplish this feat? Are some women simply more efficient than others in accomplishing tasks? Are some women basically more industrious, more organized than others? Does this pattern seem to be mainly influenced by stage in family life cycle or by generational differences between "heavy" participants and those more lightly involved?

Our study leaves untouched some obvious questions of social psychological significance, such as, "How do farm

women feel about their work?" Would they prefer to increase, decrease, or restructure the nature of their input? What social structural and/or social psychological factors, if any, seem to prevent them from doing so?

The impact that children (both dependent and resident adult offspring) have on their mothers' work is unclear and needs more deliberate study. Examination of any differential effects of female and male children might provide insight into diverse patterns of work among women.

Studies of farm women's work could examine social structural elements more elusive than scale of farming operation, such as the relative "successfulness" of the farming operation. By this, we are referring to the differences between operations which are financially tenuous (high debt and little revenue) versus those that seem to be able to profit or break even. We wonder if patterns of women's participation differ on these types of farms. Is women's help employed in similar ways on financially marginal and financially secure farms? More specifically, are women (and children) utilized as a reserve labor supply on family farms? If so, in what manner? We were unable to assess the financial stability of the farming operations in our study, but perhaps this factor accounts for some of the variance in women's participation.

Along these lines of inquiry, it seems important to understand how some farms manage without the wife's direct aid in farm work. What factor accounts for this? Is a

woman's lack of involvement in farm work a result of housework or off-farm employment pressures (which, by the way, did not seem to be the case in our study)? What are the motivational forces for their lack of involvement?

The finding that women's household task participation varies little on the three kinds of farms should also be pondered. Why and how is this possible? Why do farm husbands seem to perform so few tasks in the home? What social forces lie behind their lack of involvement?

Women's off-farm work patterns showed some interesting associations with the use of other farm laborers, scale of farming operation, and nature of farming enterprise. The manner by which women's wages are actually utilized in farm family households needs to be studied more explicitly, in addition to the sources of motivation for women's off-farm work (i.e., Is off-farm employment only undertaken if there will be little interference with women's farm and house work, as is the case for women in Brookfield and Venice townships?).

General Research Issues

Future studies should undertake to account for any regional variations in the patterning of farm women's work. It would be useful to see if the scale of farming and the nature of the enterprise are associated with the work patterns and routines of farm women in other areas of the country. Such research could explore the influence of such dimensions as class, race, and technological scale on farm

women's work involvements.

Investigations of this topic can also benefit from reviews of available historical information. Perhaps records from the earlier "time studies" could be reexamined. Oral histories and content analyses of literature about women in the land armies and during the depression might offer insights into methods by which the farming industry has utilized women (often, it appears, as a marginal, reserve labor supply) and consequences this has had upon the roles of contemporary women in agriculture.

Finally, longitudinal studies of farm women could enable us to gain a greater appreciation of the developmental life cycle experience of farm women, their work, and their obviously enormous contribution to American agriculture. Clearly, the influence of family life cycle needs to be assessed in a more detailed manner than our study permitted.

Policy Issues

Concern for the structure of agriculture in the United States inherently leads to questions about the nature and ramifications of our government's farm policy. America's agricultural programs have always, in principle, been supportive of family farms; in practice, they have actually been a major force in the numerical demise of family farms and the growth of larger, heavily commercial and corporate farms. But, Secretary of Agriculture Bergland has recently voiced a strong desire to reformulate agricultural policy so

as to encourage and preserve small and family farms; these farms, Bergland believes, represent an essential and resilient resource for American agriculture.

Family farms have been lauded by many government analysts for their adaptability. There is no doubt that they have borne much of the burden of this century's rapid technological transformations of agriculture. Many family farms have clearly been unable to withstand this pressure; countless thousands have "gone under." Still, this segment of the farming industry has exhibited flexibility in an uncertain world market and, consequently, has attracted government interest.

Maintaining and even increasing this fluidity has become a major priority of the agricultural policy makers. Yet, beyond the usual economic strategies to provide aid and tax incentives for these units of production, thought should be given to the perhaps most flexible resource integral to the social fabric of family farms: women. Policies which actively attempt to incorporate women into all aspects of farming, both managerially as well as directly, would certainly do much to enhance the strength and possibilities for family farms' survival; present programs, which tend to reinforce segregation and restrict women's role in agriculture, do not, we believe, contribute to the long-range viability of family farms.

Clearly, in order to aid family farms, they must be structurally identifiable as a target for research and as an

entity for consistent policy formulation. Questions about the definition of "family farms," "small farms," and "part-time farms" abound in current USDA discussions (and in prior debate). As a result, much emphasis is placed upon recognizing the uniqueness of a family farm; little attention is paid to the daily work patterns of persons involved in these units of production (for a possible exception, see Rodefeld, 1978). Given the information and insights from this exploratory study, and the fact that American farms are relying more and more upon women's unpaid farm labor, managerial skills, and off-farm employment (United States Census, 1978), it seems essential that women's participation on family farms should become an important agricultural policy consideration. Future research should examine how women can be integrated into more phases of agriculture, without overburdening them by merely placing greater demands upon them at home.

Limitations

Earlier in this report, we firmly asserted that much of the research on farm women's work involvement is riddled with problems. The goal of the present study has been to reconsider and reformulate some of these troublesome conceptual and methodological issues. Limitations in our approach have been suggested at appropriate, relevant points throughout this work; some of these drawbacks are unique to the present undertaking, but others echo common research approach weaknesses outlined in Chapter I. We would like to

draw attention to and elaborate upon a few of these shortcomings.

Perhaps this study's biggest handicap has been the formulation of an appropriate interpretation of comparisons among women's farm task participation scores. We emphasize the relative nature of this variable, and with good reason; derivation of each woman's score is based upon the total number of farm activities done by her particular household. We caution against comparisons of these scores among women whose households engage in a widely divergent number of activities. Our approach attempts to account for the relative nature of these scores; only women from similar kinds of farming situations are compared.

However, there are numerous variations from each farm type's average number of reported farm tasks. A standard deviation of three farm tasks is calculated for both small and larger farm groups. Six tasks are the reported standard deviation from the mean for hobby farms. In other words, there is less homogeneity in the amount and kind of farming activities among hobby farms than among small or larger farms. Because of this, the meaning of farm task participation score comparisons for women on hobby farms is perhaps more dubious than for the other groups of women (although a standard deviation of 3 tasks may cause some readers even to question comparisons among women on small or larger farms). Household task participation score comparisons do not present a similar stumbling block;

average number of household tasks are identical for the three farm types and variations from this mean are similar across the three groups (s.d.=2).

A second limitation came as a result of our small sample size; we were confined to using dichotomous variables. A larger sample would have enabled us to further divide our study variables; differences between high, average and low participation scores might very well be insightful. Having to bifurcate variables restricted us perhaps most seriously in our treatment of stage in family life cycle; the two stages we examined may be suppressing many more interesting associations. We recommend more refined categories of stage in family life cycle for further investigations.

One strength of our research approach is the incorporation of three areas of farm women's work, but our neglect of childcare gives us a less than complete appreciation of women's participation. Childcare activities, no doubt, have a commanding influence in the patterning of work, particularly in early life stages. Future research should make a discerning inspection of farm women's childcare activities, in addition to the three areas we were able to investigate.

Additionally, we are able to report only vaguely the characteristics of our respondents. Since the questionnaires were mailed to family households, rather than specific individuals, a mixture of persons offered

information. Both husbands and wives, in addition to adult children supplied answers to our survey questions. Regrettably, this procedure makes clear interpretation of our data somewhat difficult. We are forced to assume, for present purposes, that what women say they do on these farms is comparable to what others report them as doing.

Finally, this research effort has a limitation not uncommon to studies of farm women: an unrepresentative sample. We selected our study sites to facilitate exploration of the social organization of farming in areas adjacent to metropolitan centers. Our study population consists of all farm families in two selected townships; but, we do not assert that our 288 survey respondents are truly typical of even the mid-Michigan farming area. Our findings are basically suggestive, arising from exploratory research. Continued endeavors in this topical area should strive to encompass wider segments of the farm population, and employ representative samples. However, this does not preclude the usefulness of our study; an innovative approach enabled us to ask broader, more relevant questions about women's work than have previous researchers; our findings helped us to pose informed questions for further investigation and to elucidate the potential importance of scale of farming operation for understanding farm women's work involvement.

NOTES

[1]Studley's (1931) investigations entailed a unique design. Rather than requesting self-reports, male observers recorded family members' daily inputs and judged women's and children's degree of labor. Women's moderate labor was credited with different time participation (.8 hours to every clock hour) than women's heavy labor (accorded 1 hour for every clock hour). The same process was followed for children. Men were exempt from these deliniations; their labor was always interpreted as "heavy." Thus, Studley's report is, in effect, a scaled down version of the actual clock hours women devoted to farm work.

The practice of scaling hours of women's and children's participation comes as no surprise to those familiar with agricultural economics research. Yet, this practice poses multiple obstacles to the understanding and documentation of women's work. For example, Studley did not specify the percentage of women rated as heavy or moderate laborers, or amounts of time which were scaled down. Also, the determination of moderate versus heavy labor was the sole judgement of the recorder who was only afforded guides by the researcher. Observers were told that work such as plowing was an indication of heavy labor. The potential remained to overlook heavy labor typically done by women, such as handling heavy milk cans on dairy operations. It is significant that such an early attempt to record females' work was scarred by assumptions which underreported women's involvement.

[2]The authors, with the exception of Wilson (1929), did not specifically define what they meant by "farm work." Generally, discussions of farm work referred to such activities as field work, gardening, and poultry and dairy work.

[3]In their conclusions, Blood and Wolfe underscored the existence of a male instrumental role and suggested that, at most, only a minor economic role was played by the females of their sample. They were apparently blind to evidence of farm women's uniquely high participation in home production, housework and farm work.

[4]In these analyses, farm tasks included barn chores (milking, feeding livestock, and cleaning milking utensils) and field chores (tractor driving). Paying farm bills and keeping farm records loaded in the factor analysis with general home money matters. The authors felt it was contrary to expectations for women to pay bills and keep farm records while not doing other farm chores; yet, this pattern was clearly recognizable. These data are the first documentation of women's role as financial manager/comptroller.

[5]Wilkening and Guerrero (1969) published conclusions based upon this sample's decision-making and adoption practices. Analysis of the impact of women's labor role on decision-making (aside from the task of bookkeeping) was not conducted; yet, it is interesting to note that the aspirations of wives were found to be as influential as husbands' aspirations in the adoption practices of these farmers.

[6]Tasks included: keeping farm accounts, paying bills, writing checks, completing income tax forms, working with farm machinery, planting berries, removing blossoms, setting runners, weeding, and recruiting, supervising, and paying pickers.

[7]Nearly two percent of the respondents supplied incomplete information; these households are classified in the "all other" category. In addition, one household, a "complex" family unit, is included here because the male and female couple of the family are related to farming only through a son's occupation; this family does not live on the farm. The son rents all of the land that he operates and is a partner with his grandfather. As a result, the couple lacks direct ties to their son's farming operation.

[8]The other male respondent supplied incomplete household information.

[9]Three households supplied incomplete information on the nature of their farming enterprise.

APPENDIX

TABLE 16. SELECTED CHARACTERISTICS OF FARMS, BY SCALE OF FARMING OPERATION

Selected Characteristics of Farms	Scale of Farming Operation		
	HOBBY (N=32)	SMALL (N=48)	LARGER (N=60)
Mean Acres Owned	60	131	277
Mean Acres Operated	25	113	396
Mean Acres Rented To Others	21	**	**
Mean Acres Rented From Others	**	31	216

**Number of applicable cases is less than 5.

TABLE 17. SELECTED CHARACTERISTICS OF NUCLEAR FAMILY, FARM OPERATOR HOUSEHOLDS, BY SCALE OF FARMING OPERATION

	Scale of Farming Operation		
	HOBBY	SMALL	LARGER
Selected Characteristics of Nuclear Family, Farm Operator Households			
Average Age of Husband	51yrs.	53yrs.	49yrs.
Average Age of Wife	48	49	47
Percentage Who Use Other Farm Laborers	57%	59%	83%
Percentage of Wives Employed Off-Farm	39%	39%	39%
Percentage of Husbands Employed Off-Farm	76%	66%	27%
TOTAL Number of Households	28	44	52
Nuclear Families as Percentage of All Farm Operator Households	88%	92%	87%

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