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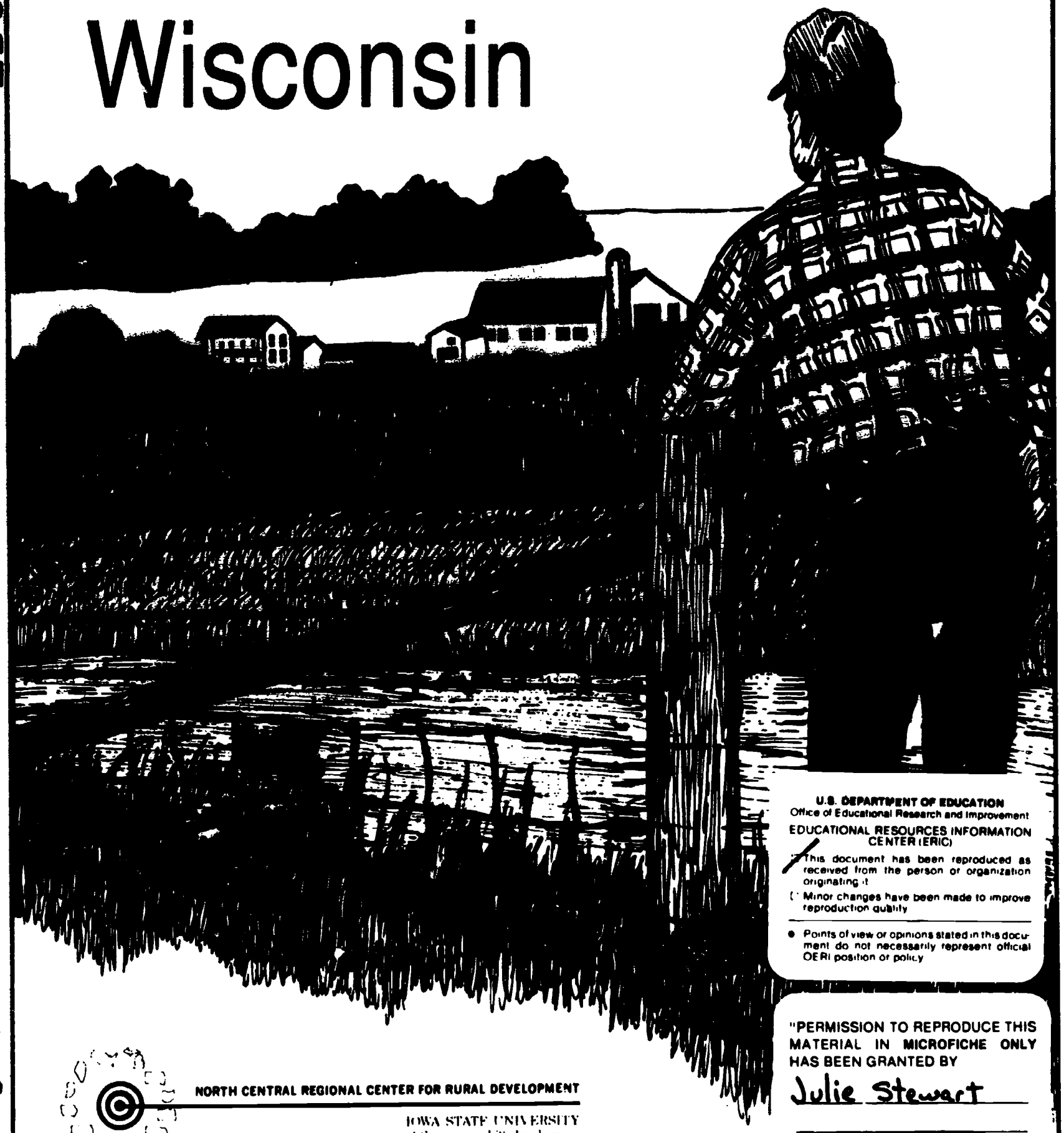
ABSTRACT

During the farm crisis of the 1980s, many midwestern farm families suffered financial distress, but by 1989 an uneven financial recovery was under way. This report summarizes data collected from 622 Wisconsin farm operators (a 39% response rate) and 525 spouses as part of a large survey conducted in 12 North Central states. The purpose of the survey was to identify farm families' adaptation pattern, information and educational needs, and opinions on rural development. Operators had an average age of 50.4 years. About a quarter of farmers and a third of spouses had some postsecondary education. In 1988, 7% of respondents had negative net family income, while about half had family incomes in the range of $10,000-$29,999. Most respondents believed that, over the last 5 years, local services, facilities, and quality of life factors had improved or stayed the same; 33% and 26%, respectively, saw improvements in adult education opportunities and quality of schools. Over 76% of operators believed that financial conditions for farmers had gotten worse and would continue to deteriorate. Most farmers responded to hard times by postponing major purchases, using savings for living expenses, and cutting back on charitable contributions; 32% decreased savings for their children's education. About 40% of farmers and spouses worked off the farm; 18% had participated in vocational education or retraining and most thought it was somewhat helpful. Highly rated information and training needs were concerned with reducing costs through low-input farming and using new technologies. Spouses were highly involved in farm operations and decisionmaking, and experienced considerable farm- and work-related stress. This report contains 18 data tables. (SV)

Farm Family Adaptations to Severe Economic Distress:

Wisconsin



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Farm Family Adaptations to Severe Economic Distress: Wisconsin

Results of the 1989 Regional Farm Survey

William E. Saupe and Janet Eisenhauer

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Preface

The 1980s brought much change to rural America. Profound changes occurred in farming. As new technology was adopted, farm numbers continued to decline and many farm families found themselves struggling against low commodity prices. In addition, financial distress gripped many farm families. As interest rates soared, farm assets declined and farm incomes plummeted. The farm crisis during the 1980s was undoubtedly one of the darkest moments in the history of the Midwest.

However, as the 1980s drew to a close, many farm families' financial positions improved and much of rural America experienced a recovery. As a result of the differential impact of the farm crisis and the uneven financial recovery, this study of farm families was undertaken as a way to assess the socioeconomic status of farm families in the Midwest.

Financial support for the project was provided by the North Central Regional Center for Rural Development as part of the regional research project NC-184. Cooperating in the study were the land-grant universities and the Agricultural Statistics Services in each of the North Central states. The data collection was conducted through a cooperative agreement between Iowa State University and the Iowa Department of Agriculture and Land Stewardship, Agricultural Statistics Service. The primary objective of the study was to assess the socioeconomic conditions of farm families in the region and provide an overview of needed research and extension activities to assist farm families.

The authors wish to acknowledge the valuable technical assistance provided by Julie Stewart and Kristi Hetland of the North Central Regional Center for Rural Development. Jacqueline Fellows, department of sociology, Iowa State University, provided much assistance in the data management and analysis.

Results of the 1989 Regional Farm Survey: Wisconsin

William E. Saupe and Janet Eisenhauer

This report summarizes data collected from a sample of Wisconsin farm families as part of a larger study conducted in the 12 North Central states of Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, North Dakota, South Dakota and Wisconsin. This survey was conducted through the cooperation of the University of Wisconsin-Madison and the Wisconsin Agricultural Statistics Service.

The purposes of the survey were to:

- Identify what adjustments farm families made during the 1980s in response to the farm crisis.
- Identify information and educational needs of farm families.
- Assess farm families opinions about several important agricultural and rural development issues.

Methodology

In February 1989, a statewide random sample of 1,600 farm households was contacted. A packet of two questionnaires was sent--one to be answered by only the farm operator and the other to be completed by the spouse. Response was encouraged by means of a follow-up reminder postcard and then by a brief telephone call.

There were 622 operator surveys returned for a response rate of 39 percent, and 525 spouse surveys returned. Of all these responses, 492 were matched pairs of questionnaires for which both an operator and the spouse were present and both responded. The distribution of responses among Wisconsin counties is shown in Figure 1.

Nonresponse and Weighting

The non-response rate for this survey was 61 percent. This high rate indicates the potential for two kinds of nonresponse bias in the survey results.

In the first case, nonresponse results in what might be called "accidental stratified sampling." In this case, the distribution of survey respondents by selected characteristics is different from

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the distribution in the population by these same characteristics.[1] The result is a stratified sample that may be weighted according to standard procedures so that the population proportions are reflected in the survey results. This weighting procedure is justified if theory suggests that an individual's characteristics affect their behavior and opinions and thus their responses to survey questions. Weighting, in the case of accidental stratified sampling, will almost always improve estimates and will never make them worse.[2]

In the second case, bias arises if nonrespondents would answer differently from respondents with similar characteristics. Unlike the case of accidental stratification described above, it is not possible to correct for this bias without some information from the nonrespondents. In order to gain this information, 25 randomly selected nonrespondents were interviewed by telephone and asked several questions from the mail survey. However, the majority of those called reaffirmed that they were not interested in participating in the survey at all, and those who did respond provided incomplete information. Because of this lack of information, this type of nonresponse bias could not be addressed.

The first type of nonresponse bias, accidental stratified sampling, was addressed as follows. Two characteristics of the farm population were chosen for comparison with the survey respondents because of their expected effect on the survey responses: age of farm operator and gross sales of farm products (a measure of farm size). Data for the farm population came from the 1987 Census of Agriculture. The distribution of the survey respondents by age and gross sales of farm products was found to be different from the distribution for the farm population, indicating that our survey results were biased. The survey data were therefore adjusted (weighted) to reflect the distribution of the farm population by age of farm operator and gross sales of farm products.

The weighting matrix is reported in Appendix Table A.1. Differences in the distributions of our unweighted and weighted observations for selected characteristics are shown in Appendix Tables A.2 and A.3.

Missing Data

Some respondents skipped parts or all of some questions in what were otherwise usable questionnaires. Rather than discard the observation and lose all the information, these missing items were accommodated by including a "no response" entry in the tables.

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[1] For example, according to the 1987 Census of Agriculture, 31 percent of the population of Wisconsin farmers produced gross sales under $10,000 in 1987, 49 percent produced between $10,000 and $99,999 and 20 percent produced $100,000 or more. In our (unweighted) sample, however, the distribution among those three strata was 18, 55 and 27 percent, respectively.

[2] A useful reference on stratified sampling and related topics is: Kish, Leslie. 1965. *Survey Sampling*. New York: John Wiley & Sons Inc.

However, in 45 cases data were missing for the two variables that were needed to calculate the weights. Our options were to try to estimate these missing data, or to drop those observations and lose their information in all the analyses. "Age of operator" was not reported in eight cases. In six of these cases age was estimated by considering the observed relationships in the data set between the age of operator and the following related characteristics: the age of the spouse, the age of children present in the household, the number of years the person had been a farm operator, and the number of years the operator had lived in the county. Age could not be estimated in the remaining two observations, forcing us to drop them from the data set.

In 37 cases the respondents did not report their gross farm sales. An accounting equation was developed based on the acres planted to various crops and the number and kinds of livestock and poultry produced. State average data on gross sales per acre and per unit of livestock were used to calculate gross sales. In 28 cases, adequate information was provided to complete the calculations. In nine cases the information provided was inadequate and those observations were also dropped from the data set.

In the remainder of this report we present descriptive tables reporting the responses to our questions, and discuss the major findings. Unless indicated otherwise, data are based on our weighted sample.

Results

The mean operator age for the sample (50.4 years) was essentially the same as that for the population as reported in the 1987 Census of Agriculture (50.3 years). This is the expected result because one of the characteristics by which the sample was weighted to reflect the distribution of the population was age of the operator. The second characteristic was gross sales of farm products. About 17.3 percent of the farm operators and 11.3 percent of the spouses had not attended high school, while 25.9 percent and 34.6 percent, respectively, had formal post-high school education.

Total household income of farm families can come from many sources. Farm families can earn income (or generate net losses) from their farm business as well as from other, nonfarm self-employment. They may receive wages or salaries from off-farm employment; earn interest, dividends or rent from nonfarm investments; and receive transfers in the form of Social Security benefits, food stamps, annuities, etc. The sum of these are total household income.

We asked the farm operators in our sample to identify in which of nine income brackets their total household income fell in 1988. This was reported to be a net loss by 6.9 percent of the cases. Mean income cannot be calculated from bracketed data, but about 50 percent of the Wisconsin respondents reported total household net income between $10,000 and $30,000 (Table 1).

Farm size can appropriately be measured in a variety of units. In specialized farms with the same enterprise, the number of animals in the herd or acres of crops is a useful unit for comparing size (e.g., number of dairy cows, crop acres in corn and soybeans). Wisconsin agriculture is very diverse, so a scheme for comparing a wide variety of farm types is needed.

Gross sales of farm products provides that kind of a measure, because it weights each unit of production that is sold by its selling price. Nearly one-third of Wisconsin farms reported gross sales of under $10,000 (Table 2).

Community and Economic Conditions

Farm operators were asked how various services, facilities and economic conditions in their local community had changed during the past five years. Their responses are reported in Table 3 and are ranked in order of improvement.

In general, more respondents believed that services and facilities in their local community had improved than believed they had gotten worse. The exception was "job opportunities," where nearly 30 percent thought the situation had gotten worse and about 27 percent thought it had gotten better.

The farm and farm related financial conditions in the community were a different story, however. About one farm operator in six reported that their own farm's financial condition had improved, twice that many reported that their's had gotten worse, while about one-half said it was unchanged. In contrast, three-fourths believed other farmers in their area had become worse off during the last five years. That is, individual farmers viewed themselves as doing considerably better than the other farmers in their community.

Respondents viewed the change in the financial conditions of their lenders as somewhat similar to their own, but believed agribusiness firms in the area had fared quite badly in the past five years.

Quality of Life

Operators and spouses were asked on their separate questionnaires for their opinions about various aspects of quality of life in their community. It should be noted that these are *not* matched operators and spouses, but instead are the responses of all the operators that elected to answer these questions (maximum number 622) and all the spouses that elected to answer these questions (maximum number 525).

The operators and spouses gave similar responses regarding family finances during the past five years. The responses of both the operators and the spouses were about evenly distributed among "becoming better," "remaining the same," and "becoming worse." Regarding changes in the quality of life, a larger proportion of both operators and spouses said it had "remained the same," and fewer thought it had "become worse" in the last five years (Table 4).

Looking to the future, 80 percent of the operators thought the overall economic condition of farmers in the next five years would become worse, while 20 percent thought it would become better. The majority of the spouses (58 percent) also thought overall conditions for farmers would become worse, but fewer spouses than operators thought conditions would become better. Considering their own farm's overall financial situation, one-fourth of both the operators and spouses thought the likelihood that they would continue to farm for at least the next five years

had become worse. More operators than spouses thought the likelihood had become better. When comparing their financial situation to other farmers in the area, however, more of both the operators and the spouses thought their situation had improved than thought it had worsened. Relatively few of the operators or the spouses believed their satisfaction with farming had gotten better in the last five years. The majority reported no change in various aspects of "neighboring" in the last five years.

Farm Family Adjustments

Adjustments made by the farm family in response to financial need in the past five years are reported in Table 5, ranked by the frequency with which they were reported by farm operators. More than one-half reported postponing major household purchases, using savings to meet living expenses, and cutting back on charitable contributions. Additional high frequency consumer responses included changing food shopping or eating habits, changing transportation patterns, and reducing household utility use.

Reductions in human capital investments and care, that could have had longer term negative effects on future earnings and care costs, were noted as follows: postponing medical or dental care (38 percent), decreasing savings for children's education (32 percent), canceling or reducing medical insurance coverage (23 percent), letting life insurance lapse (14 percent), and postponing children's education (8 percent).

Forty-one percent of the operators reported that their spouse had taken off-farm employment, and 36 percent reported they had also begun work off the farm. The intensity of off-farm employment for both operators and spouses is reported in Table 6.

Probably related to this increased incidence of off-farm employment was a reduction in on-farm work reported by 37 percent of the operators and for 16 percent of other family members (Table 7). Increases in operator or family labor on the farm was reported in about 15 percent of the cases.

Risk Reduction Behaviors

The 1970s and 1980s were periods of wider than usual fluctuations in many farm commodity prices, interest rates, credit terms and land values. Farmers may well perceive the farming environment as riskier now than in the past. We asked farm operators to indicate adjustments they had made in the last five years to respond to risk, and their responses are reported in Table 8, ranked by most frequent responses. Changes planned by 1992 are also reported.

One-half to almost three-fourths of the farm operators reported postponing major farm purchases, paying closer attention to marketing, keeping more complete financial records, reducing long- and short-term debt, and sharing labor and machinery with neighbors. One-third to one-half reported they would make those changes by 1992.

About one-fifth each reported renting more land and renting less land, and about one-tenth each reported buying more land and selling some land.

Participation in Government Programs

A variety of federal and state government programs were available that might have been of assistance to farm households. We inquired about participation in 16 of them, and the amount of help received from those that had been used. The programs are ranked in Table 9 by the percentage of operators that reported the program had been "a lot of help" to them.

More than two-thirds of the farmers participated in the 1988 Drought Assistance Act and in some federal farm commodity program(s), and most reported they had been helped by them. One-fourth to one-fifth used loans from the Farmers Home Administration (FmHA), had removed cropland from production under the long-term Conservation Reserve Program (CRP), or had taken out Federal All-Risk Crop Insurance. The two bankruptcy options were the least-used programs.

Most of the programs had high visibility among the farmers interviewed, with less than 1 percent not participating because they "did not know about" drought assistance, FmHA, the bankruptcy options or food stamps. Least well known were the federal crop insurance program, the availability of off-farm job search and assistance programs, and financial analysis or counseling performed by the extension service. The most common reason cited for not participating in these programs was that the program was not needed.

The appropriate reporting that a program was "no help" may have been misunderstood or misused by some respondents. A few respondents reported that they had participated in all 16 programs and that each was of "no help." While this may be an accurate statement of their experiences, there is the possibility that it instead reflects their use of the question to express general disapproval of government programs. For example, unemployment benefits, fuel assistance, income assistance and food stamps provide direct cash assistance to participants. While they might have been only "some help" to a recipient, it is unlikely that such grants would have been of "no help". In addition, it would have been extremely unlikely that a farmer would be involved in both types of bankruptcy processes. We conjecture that the percentages reported in the "no help" column may be overstated by perhaps two percentage points.

Information and Training Needs

Farm operators' opinions regarding the training and information they would need in order to continue farming can be an important input in the planning done by educational institutions with responsibilities for meeting those needs. Farmers' perspectives should be of use to the extension service and other adult vocational training programs in their immediate and long-term program planning for farmers. For future farming entrants in the longer term, these ideas may be helpful in developing the farm training curriculums of high school agricultural programs, college-level short courses for beginning farmers, and in college programs directed toward preparation for farming.

In Table 10, farmers' responses are ordered based on the percentage of respondents reporting that the topic was a "very high need" for them to be able to continue farming.

More than one-half of the farmers surveyed reported they would need information or training in four areas directly related to the production of currently produced crops: reducing production costs through low-input farming methods, using new technologies as they become available, using appropriate conservation techniques, and using new machines and chemical inputs to increase production.

In addition, more than one-half of the farmers recognized the importance of improving their marketing skills and diversifying the farm operation by adopting new crops and livestock. In contrast to the response to training in these areas, about one-fourth of the farmers perceived a need for training in processing farm products on the farm.

Spouses' Involvement in Farm Operation

The farm spouses, almost all of whom were female, were asked about the kinds of work they did and if the time devoted to these tasks had changed during the last five years. Spouses, like farm operators, can contribute to household well-being by allocating their efforts across activities. In general, it appears that most spouses were involved in home production (homemaking) and in the bookkeeping and record keeping aspects of the farm business. Approximately 40 percent of the spouses worked off the farm, while fewer than that were directly involved in farm production (Table 11).

The common perception of the male/female division of labor in the farm household prevailed. About 96 percent of the spouses reported they performed household tasks and/or child care, with 86 percent reporting that they "always" did so, and one-fourth reporting that their time for these tasks had increased in recent years. Some 85 percent reported that they took care of a vegetable garden or animals for family consumption, another traditional role for the "farm wife." One-fifth, however, reported that they were doing less of this.

Regarding the farm business, 84 percent of the spouses did bookkeeping or maintained farm records, and more than 90 percent ran farm errands. Nearly three-fourths were involved in production agriculture by milking cows or otherwise caring for farm animals or doing field work. However, these were the areas of greatest change in the last five years, with about one-third of the spouses reporting less time in these duties than in the past.

The greatest increase in time devoted to a particular activity was in spouses working at an off-farm job, which is consistent with results from other studies. More than two-thirds worked off-farm at least some time during the year, and 27 percent reported that their time in off-farm work had increased in the last five years.

In contrast, less than 20 percent of the spouses reported that they regularly purchased major farm supplies and equipment, did field work, supervised the farm work of others, or marketed farm products, but about one-half had purchased major farm supplies and equipment or supervised the farm work of others at some time. Less than 30 percent of the farm spouses had ever marketed farm products through wholesale buyers or directly to consumers. Most spouses reported that the amount of time spent on various tasks had remained unchanged in recent years, and that was particularly true with regard to these four activities.

Family Decision-Making Behavior

Operators and spouses were most likely to make joint decisions regarding the purchase of major household appliances, buying or selling land, and buying major farm equipment. It appears, however, that spouses were less involved in other production decisions. More than 40 percent of the surveyed spouses reported that their husband (or someone else) was the sole actor in decisions to produce a crop or livestock, when to sell agricultural products, or to try a new agricultural practice. Very few spouses (6 percent or less) made any of these decisions on their own. The spouses' greatest independence in family decision-making was in buying major household appliances, where about 15 percent made those decisions by themselves (Table 12).

Pressures Experienced by Spouses

There are many pressures on farm families. We asked the farm spouses how frequently they experienced certain kinds of pressures. These are reported in Table 13, ranked by their occurrence on a daily basis.

The most common, mentioned by almost 80 percent of the spouses, was problems in balancing work and family responsibilities at least occasionally, and with one-fourth experiencing this pressure on a daily basis. Lacking control over weather and prices was also frequently experienced, with 79 percent reporting this type at least occasionally and one-fifth reporting it on a daily basis.

The two stresses most rarely experienced by farm spouses were insufficient support from spouse in farm or family duties, and difficulty in child care arrangements, with about one-third of the spouses for whom this was applicable reporting occasional or more frequent stress from these areas. Child care arrangements were inapplicable to the situation for about one-half of all households because there were no children present.

Coping Strategies Used by Farm Spouses

We asked the farm spouses how often they used each item on a list of 18 coping strategies to handle the life pressures reported above (Table 14). Five of the six most-used strategies suggest an image of stoic optimism on the part of these farm spouses. Coping strategies most commonly used by farm spouses included "remind myself that for everything bad about farming, there is also something good" and "notice people who have more difficulties in life than I do." More than 50 percent of the surveyed spouses reported using these two coping strategies either "a great deal" or "quite a bit." Nearly one-half of the spouses used the following four strategies with that same level of frequency: "participate in church activities," "put up with a lot as long as I make a living from farming," "tell myself that farming is not the only important thing in life," and "make a plan of action and follow it." Note that only the latter suggests an active, take-control approach to stress management.

The least commonly used coping strategies also appear to confirm the stoically optimistic response, as strategies that sought outside assistance or otherwise involved taking action were used less frequently. More than 90 percent of the spouses reported they never used a "family

counselor or other mental health professional" and about one-half never "sought support from a minister or priest" or "talked to someone who can do something concrete about the problem." About one-third at least sometimes "try to make myself feel better by eating, drinking, smoking, using medication, etc.". It seems, then, that farm spouses preferred to keep their problems to themselves.

Participation in Farm and Local Organizations

Farm and community organizations provide opportunities for joint action to improve negotiating positions for pricing farm inputs and products, influencing public policy, and addressing other rural conditions and issues. The farm operators and spouses in our survey were very similar in their participation as members in a variety of such organizations, but lack of participation (as members) was the more common response.

Most of the farm spouses had never been members of the nine types of organizations about which we inquired, ranging from 60 percent for national farm policy organizations, to more than 95 percent for women's branches of commodity organizations, women's farm organizations, and farm political action groups (Table 15).

The results for the farm operators were similar, with the exception of memberships in farm supply cooperatives and any organization such as National Farmers Organizations, Grange, Farm Bureau, National Farmers Union, Young Farmers and Farm Wives. Approximately 40 percent of the operators reported they were currently members of these types of organizations, and about one-fourth belonged to farm marketing cooperatives or to farm commodity organizations.

Table 1. Comparison of respondents' personal characteristics to personal characteristics of total farm population in Wisconsin

Personal characteristics	Sample of operators	Sample of spouses	Farm population[a]
Average age, years	50.4	48.4	50.3
	Percent		
Under 25	0.3	0.6	1.7
25-34	10.6	14.6	13.9
35-44	20.4	22.2	21.6
45-49	11.0	15.6	10.7
50-54	13.9	13.0	11.3
55-59	12.9	11.4	12.3
60-64	12.2	12.8	11.7
65-69	10.7	5.3	7.9
70 +	8.0	4.5	8.9
Average years of education	12.0	12.5	N/A
	Percent		
0-8	17.3	11.3	N/A
9-12	56.8	54.1	N/A
13-16	21.3	31.0	N/A
17 +	4.6	3.6	N/A
Net family income	Percent		
Loss	6.9		N/A
$1-$9,999	22.7		N/A
$10,000-$19,999	24.5		N/A
$20,000-$29,999	19.4		N/A
$30,000-$39,999	10.9		N/A
$40,000-$49,999	7.7		N/A
$50,000-$59,999	3.7		N/A
$60,000-$69,999	1.7		N/A
Over $70,000	2.5		N/A

[a] 1987 Census of Agriculture, Volume 1 Geographic Area Series, Part 49. Wisconsin State and County Data.

Table 2. Comparison of respondents' farm characteristics to farm characteristics of total farm population in Wisconsin

Farm characteristics	Sample of operators	Wisconsin farm operators population[a]
Average farm size, acres	208	221
	Percent	
1 to 9	6.1	5.3
10 to 49	4.9	11.7
50 to 179	43.2	36.6
180 to 499	41.2	38.4
500 to 999	4.4	6.5
1,000 +	0.2	1.5
Gross farm sales	Percent	
Less than $10,000	31.1	31.1
$10,000 to $99,999	48.5	48.5
$100,000 or more	20.4	20.4

[a] 1987 Census of Agriculture, Volume 1 Geographic Area Series, Part 49. Wisconsin State and County Data.

Table 3. Farm operators' opinions on changes in local services, facilities and economic conditions

Category	Improved	Remained the same	Gotten worse	Uncertain	Not available	Number of respondents
			Percent			
Shopping facilities	47.5	32.2	18.8	0.7	0.8	596
Adult education opportunities	32.9	55.6	4.2	6.4	0.9	599
Health care services	27.5	50.7	14.6	6.3	0.9	599
Banking services	27.0	57.8	13.4	1.5	0.3	601
Job opportunities	26.4	38.3	29.9	4.6	0.8	603
Quality of schools	25.6	54.0	15.4	4.6	0.4	604
Police and fire protection	25.0	68.1	4.5	2.2	0.2	602
Child care facilities	23.4	44.9	7.8	17.9	6.0	590
Opportunities for entertainment and recreation	19.9	57.5	17.8	3.5	1.3	594
Farm's financial condition	17.7	45.3	34.7	2.1	0.2	601
Current financial condition of area lenders	7.5	51.9	25.3	13.7	1.6	597
Current financial condition of area agribusiness firms	5.5	26.8	59.8	6.7	0.2	603
Current financial condition of farmers	4.2	17.6	76.5	1.1	0.6	605

Table 4. Farm operator and spouse opinions on quality of life in their communities

Opinions	Become better		Remained the same		Become worse	
	Op	Sp	Op	Sp	Op	Sp
	Percent					
Your family finances in past 5 years	37.6	40.4	29.1	26.7	33.3	32.8
Quality of life for your family in past 5 years	30.9	37.2	45.7	42.1	23.4	20.7
Overall economic condition of farmers in next 5 years	20.0	13.3	0.0	28.1	80.0	58.7
Likelihood you will continue to farm for at least the next 5 years	20.1	13.8	54.8	61.8	25.0	24.3
Your financial situation compared to farmers in your area	31.2	28.4	51.4	54.6	17.4	17.1
Your satisfaction with farming	16.9	13.4	44.7	48.2	38.5	38.4
"Neighboring" over the past 5 years	12.8	12.8	57.0	58.3	30.2	28.9
Neighbors helping each other over the past 5 years	16.8	15.4	52.9	56.6	30.2	28.0
Things you have in common with people in your community	14.1	14.1	71.5	68.1	14.4	17.8

Op = Operator (N=587-608)
Sp = Spouse (N=471-480)

Table 5. Farm family adjustments reported by operator as made in 1985-1989 because of financial need

Adjustments	Yes	No	Number of respondents
	Percent		
Postponed major household purchase(s)	59.4	40.6	606
Used savings to meet living expenses	51.9	48.1	605
Cut back on charitable contributions	50.0	50.0	601
Changed food shopping or eating habits to save money	45.1	54.9	606
Spouse took off-farm employment	41.4	58.6	603
Changed transportation patterns to save money	38.6	61.4	602
Postponed medical or dental care to save money	37.6	62.4	606
Reduced household utility use, such as electricity, telephone	37.6	62.4	604
Took off-farm employment	36.2	63.8	606
Decreased money saved for children's education	32.1	67.9	598
Purchased more items on credit	28.3	71.7	604
Sold possessions or cashed in insurance	27.0	73.0	605
Fell behind in paying bills	25.8	74.2	603
Canceled or reduced medical insurance coverage	22.9	77.1	602
Borrowed money from relatives or friends	19.7	80.3	605
Let life insurance lapse	14.3	85.7	601
Postponed children's education	8.1	91.9	599

Table 6. Off-farm employment of operator and spouse in 1988

	Operator		Spouse	
Hours per week	Number	Percent	Number	Percent
None	374	61.2	352	57.7
1-9	15	2.5	16	2.6
10-19	20	3.3	21	3.5
20-29	17	2.8	50	8.1
30-39	15	2.4	38	6.3
40 +	170	27.8	133	21.8
Average hours per week	14.1		13.8	
Number of respondents	611		611	

Table 7. Changes in farm operation reported by farm operator--1984 and 1988

Changes	Increased	No change	Decreased
		Percent	
Acres owned	8.7	74.7	16.6
Acres rented	20.5	57.2	22.4
Total acres operated	26.9	51.5	21.6
Operator hours worked on farm	13.6	49.0	37.4
Percent family labor on farm	19.7	64.5	15.8

Table 8. Farm operators' report of risk reduction behaviors for 1984-1988 and behaviors planned for 1989-1993

Adjustments	Changes made 1984-1988		Changes planned 1989-1993		
	Yes	Number of respondents	Yes	Maybe	Number of respondents
	Percent		Percent		
Postponed major farm purchase	74.1	588	48.8	19.2	545
Paid closer attention to marketing	71.9	583	61.3	11.8	544
Kept more complete financial records	64.9	582	55.0	6.7	547
Reduced long-term debt	60.8	576	50.0	11.7	545
Reduced short-term debt	58.3	572	48.1	11.9	542
Shared labor or machinery with neighbors	50.0	586	34.5	14.7	550
Reduced expenditures for hired help	38.1	586	25.7	9.6	548
Diversified farm by raising livestock	38.1	575	24.2	18.3	538
Sought off-farm employment	38.1	581	26.4	10.7	554
Bought crop insurance	30.2	582	33.0	17.8	548
Diversified farm by adding new crops	23.5	590	16.9	36.9	557
Rented fewer acres	21.7	584	17.3	9.5	548
Reduced machinery inventory	20.6	582	15.8	11.8	547
Rented more acres	20.4	583	15.5	13.1	549
Sought training for new vocation	14.0	583	10.7	17.0	551
Started a new business (not farming)	11.2	587	10.3	15.0	553
Bought additional land	11.2	587	10.0	14.5	552
Retired from farming	10.4	593	16 7	19.5	560
Used futures markets to hedge prices	9.7	579	13.4	12.7	547
Quit farming	8.2	592	13.3	25.8	561
Sold some land	7.3	587	5.6	10.6	549
Changed from cash rent to crop share	5.6	581	6.3	8.9	545
Transferred land back to lender	1.3	583	1.3	3.9	548

Table 9. Farm operators' report of participation in government programs and their opinions on how helpful the programs were

Programs and laws	Participated			Did not participate				Number of respondents
	No help	Some help	A lot of help	Not needed	Did not qualify	Not available	Did not know about	
	Percent			Percent				
1988 Drought Assistance Act	5.7	39.3	25.7	19.0	9.6	0.0	0.7	562
Federal government commodity programs (Feed Grain, Dairy Support)	4.4	39.6	21.0	22.7	10.9	0.1	1.2	554
Loans from FmHA	8.1	4.7	7.7	65.3	12.5	0.8	0.9	539
Conservation Reserve Program (CRP)	6.2	13.4	6.0	54.2	16.9	0.4	3.0	532
Vocational retraining/ education program for self or family member	5.2	8.5	4.2	73.8	3.2	0.7	4.4	541
Unemployment benefits	4.7	3.9	2.1	76.1	10.6	1.2	1.4	544
Farmer/lender mediation service	8.7	2.9	1.7	74.1	4.7	0.5	7.4	538
Mental health counseling for yourself or family member	4.8	3.8	1.7	83.3	2.8	0.8	2.7	538
Federal All-Risk Crop Insurance	8.9	10.0	1.1	63.4	5.2	1.4	9.9	537
Fuel assistance	5.7	4.1	1.1	78.1	9.2	0.5	1.4	544
Chapter 12 (debt restructuring for farmers)	2.1	0.5	0.5	91.9	4.0	0.2	0.9	517
Job Partnership Training Act or other off-farm job search assistance program	6.0	2.5	0.4	79.8	3.1	0.8	7.3	541
Financial analysis or counseling by extension service	5.1	4.1	0.4	80.0	2.3	0.7	7.3	542
Chapter 11 bankruptcy (debt reorganization)	2.1	0.6	0.3	92.6	3.5	0.2	0.7	517
Income assistance (AFDC, SSI)	5.0	2.0	0.3	78.7	10.0	0.4	3.7	544
Food stamps	5.3	1.4	0.1	84.1	8.0	0.3	0.8	541

Table 10. Farmers' opinions on their information and training needs to continue farming in the next five years

Category	Need					Number of respondents
	None	Low	Moderate	High	Very high	
	Percent					
Reducing production costs through low-input farming methods	22.2	14.3	36.6	17.4	9.5	572
Using new technologies as they become available	21.7	13.9	39.4	18.5	6.5	569
Marketing skills	32.0	14.0	36.1	11.7	6.2	570
Available government assistance	33.9	18.3	28.4	13.7	5.7	567
Using appropriate conservation techniques	28.3	18.4	33.6	14.2	5.5	571
Using new machines and chemical inputs to increase production	30.9	17.2	35.1	12.0	4.8	572
Diversifying farm operation by adopting new crops and livestock	35.3	17.4	30.2	12.8	4.3	570
Bookkeeping and financial systems	38.0	18.3	25.7	14.0	3.9	573
Processing farm products on farm before selling	54.3	21.3	15.0	6.6	2.8	568

Table 11. Farm spouses' report on types of farm duties and changes in the amount of time spent on these duties

Duties	Perform these duties					Time spent on these duties			
	Always	Sometimes	Never	Not done	Number of respondents	Increased	Stayed the same	Decreased	Number of respondents
	Percent					Percent			
Household tasks and/or child care	86.3	8.8	1.4	3.5	470	24.7	64.2	11.0	440
Bookkeeping and maintained records	62.2	22.2	13.4	2.2	470	24.6	66.5	8.8	438
Took care of a vegetable garden or animals for family consumption	53.1	31.7	9.3	5.9	476	12.1	66.5	21.4	429
Milked or cared for farm animals	38.9	38.3	15.6	7.2	471	18.7	50.5	30.8	432
Worked at an off-farm job	38.9	27.0	23.3	10.9	475	27.4	57.0	15.5	399
Ran farm errands	34.6	58.8	4.9	1.7	467	17.3	64.1	18.6	438
Field work	15.6	56.8	20.5	7.1	476	9.9	57.2	32.9	444
Purchased major farm supplies and equipment	10.7	33.7	47.9	7.6	469	4.6	81.7	13.7	416
Supervised the farm work of others	10.5	38.4	36.9	14.1	469	8.2	74.6	17.1	397
Marketed farm products through wholesale buyers or directly to consumers	8.5	19.0	47.3	25.2	468	4.8	81.2	14.0	388

Table 12. Farm spouses' opinions on family decision-making behavior

Decisions	Usually me	My husband or someone else	My husband and I or someone else	Decision has never come up	Number of respondents
			Percent		
Buy major household appliances	15.1	9.9	73.3	1.7	478
Buy or sell land	2.7	16.9	55.6	24.8	479
Buy major farm equipment	5.0	38.3	51.2	5.5	478
Rent more or less land	3.2	30.2	40.7	25.9	474
Produce a crop or livestock	3.5	41.9	36.6	17.9	471
Determine when to sell agricultural products	5.7	48.6	34.5	11.2	475
Try a new agricultural practice	4.3	46.5	34.2	15.0	476

Table 13. Farm spouses' report on frequency of life pressures

Pressures	Almost never	Occasionally	Daily	Does not apply	Number of respondents
			Percent		
Problems in balancing work and family responsibilities	16.6	50.2	29.0	4.3	474
Lacking control over weather and commodity prices	12.2	57.8	21.7	8.4	468
Indebtedness and debt-servicing problems	32.4	42.2	10.4	14.9	475
Adjusting to new government policies	25.4	56.9	5.4	12.3	468
Insufficient support from spouse in farm or family duties	55.1	30.4	5.4	9.1	474
Conflict with spouse	39.4	52.2	5.2	3.3	479
Conflict with children	39.4	52.2	5.2	3.3	479
No farm help or loss of help when needed	28.5	48.5	4.5	18.5	474
Difficulty with child care arrangements	31.8	17.0	2.0	49.2	473

Table 14. Coping strategies used by farm spouses

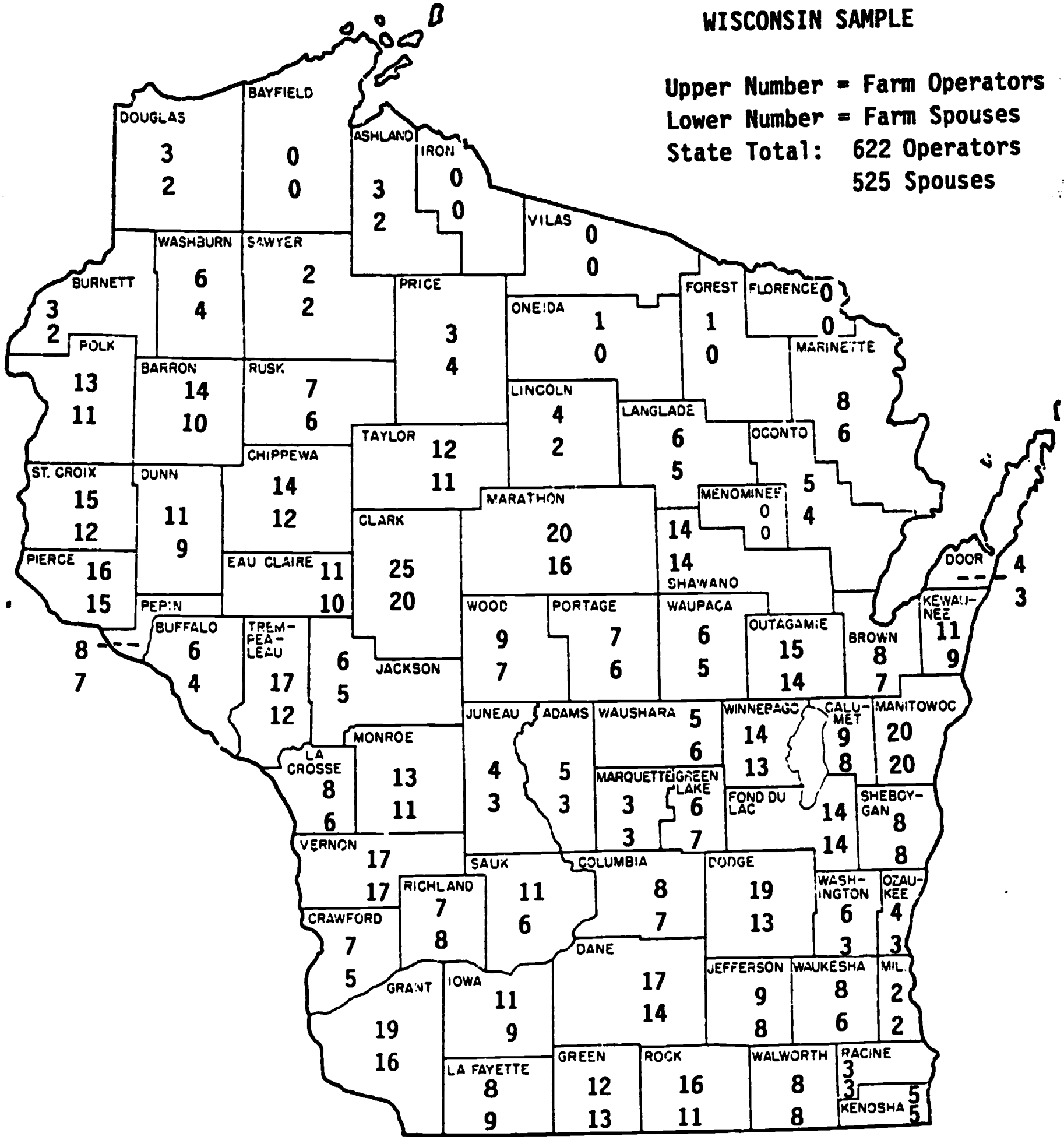
Coping strategies	Use a great deal	Use quite a bit	Use somewhat	Never use	Number of respondents
			Percent		
Participate in church activities	24.2	22.3	35.7	17.8	479
Remind myself that for everything bad about farming, there is also something good	22.4	34.3	33.0	10.3	470
Put up with a lot as long as I make a living from farming	19.2	29.8	29.5	21.5	465
Make a plan of action and follow it	16.4	29.2	43.9	10.5	462
Try to keep my feelings to myself	15.6	17.9	47.1	19.4	467
Don't expect to get much income from farming	14.9	17.4	43.1	24.6	463
Notice people who have more difficulties in life than I do	14.6	34.6	44.3	6.6	472
Wish that the situation would go away or somehow be over with	13.9	11.6	41.7	32.8	468
Tell myself that success in farming is not the only important thing in life	13.8	26.4	45.1	14.7	470
Become more involved in activities outside the farm	11.3	22.9	48.6	17.2	478
Keep problems secret from others	11.0	11.2	42.9	34.8	469
Go on as if nothing is happening	10.3	20.4	37.2	32.1	467
Seek support from friends and/or relatives	5.2	17.9	43.9	33.0	464
Seek spiritual support from minister, priest or other	4.7	7.7	32.1	55.5	466
Talk to someone who can do something concrete about the problem	4.0	9.2	41.6	45.2	469
Try to make myself feel better by eating, drinking, smoking, using medication, etc.	3.5	9.3	23.5	63.7	470
Refuse to think about it	3.0	9.0	41.2	46.7	468
Talk to a family counselor or other mental health professional	1.4	1.5	6.8	90.3	467

Table 15. Operator and farm spouse membership in farm and local organizations

Organizations/activities	Spouse				Operator			
	Member	Former member	Never member	Number of respondents	Member	Former member	Never member	Number of respondents
	Percent				Percent			
Any organization, such as National Farmers Organizations, Grange, Farm Bureau, National Farmers Union, Young Farmers and Farm Wives	28.2	11.5	60.3	462	36.5	16.2	47.3	461
Any women's branches of general farm organizations, such as Farm Bureau Women	5.2	3.9	91.0	453	1.9	6.3	91.7	395
Any commodity producers' associations, such as the American Dairy Association or National Wheat Producers Association	19.5	3.3	77.2	455	28.6	7.2	64.1	434
Any women's branches of commodity organizations, such as the Cattlewomen or the Wheathearts	1.9	0.1	97.9	450	1.3	0.3	98.4	401
Women's farm organizations, such as Women for Agriculture, American Agri-Women, or Women Involved in Farm Economics	2.0	1.9	96.1	455	0.4	0.8	98.9	399
Farm political action groups, such as a state Family Farm Movement or National Save the Family Farm Coalition	1.0	1.3	97.7	452	2.0	0.9	97.1	416
Local governing board, such as school board or town council	8.4	6.7	84.7	454	9.0	11.5	79.5	42[illegible]
Marketing cooperative	17.9	3.5	78.6	448	24.9	6.2	68.9	422
Farm supply cooperative	24.0	3.7	72.3	448	36.8	6.7	56.5	434

NORTH CENTRAL REGION
FARM FAMILY WELL BEING SURVEY
WISCONSIN SAMPLE

Upper Number = Farm Operators
Lower Number = Farm Spouses
State Total: 622 Operators
525 Spouses



Appendix A. Weighting Scheme

Because of the high nonresponse rate for this survey (61 percent of the farm operators) it was possible that our respondents did not reflect the true population of farm operators in Wisconsin. To improve the representativeness of our sample, we weighted the sample based on two salient characteristics of the population. The sample respondents have been weighted to reflect the distribution of all farms in the population by "gross sales of farm products" and "age of operator," based on the population statistics from the 1987 Census of Agriculture. The weights were calculated as follows:

$$\text{Weight for Observation in "Gross Sales-Age" Category i} = \frac{\text{Percent of the population in "Gross Sales-Age" Category i}}{\text{Percent of sample in "Gross Sales-Age" Category i}}$$

The specific weights assigned to each observation in a gross sales-age category are given in Appendix Table A.1.

Appendix Table A.1. Weights assigned to farm operators and associated spouses

	Gross sales of farm products categories		
Age of operator, years	<$10,000	$10,000 to $99,999	>$100,000
Less than 34	11.2	1.3	0.9
35-44	2.6	1.0	0.6
45-54	1.6	0.8	0.6
55-64	1.6	0.8	1.0
65 +	1.1	0.7	1.3

The weights indicate that farms with gross sales of farm products less than $10,000 of all ages were undersurveyed in the sense that their proportion in the population is much higher than their proportion in our sample. For farms reporting gross sales greater than $100,000, older farmers were slightly under-represented in our sample. All other gross sales-age categories were over-represented in our sample relative to the population.

Appendix Table A.2. Comparison on weighted and unweighted personal characteristics of operators and spouses

Characteristics	Sample of operators		Sample of spouses	
	Unweighted	Weighted	Unweighted	Weighted
Average age, years		Percent		
Under 25	0.3	0.4	2.8	3.3
25-34	10.5	15.2	15.2	15.4
35-44	20.5	21.5	21.1	21.2
45-54	25.0	22.0	27.6	26.9
55-64	25.0	24.0	24.0	23.9
65 +	18.7	16.9	9.1	9.3
Average years of education		Percent		
1-8	17.3	17.3	21.4	11.3
9-12	56.8	56.8	49.6	54.1
13-16	21.3	21.3	25.9	31.0
17 +	4.6	4.6	3.1	3.6
Net family income		Percent		
Loss	6.4	6.9	N/A	N/A
$1-$9,999	22.0	22.7	N/A	N/A
$10,000-$19,999	25.0	24.5	N/A	N/A
$20,000-$29,999	20.8	19.4	N/A	N/A
$30,000-$39,999	11.3	10.9	N/A	N/A
$40,000-$49,999	6.8	7.7	N/A	N/A
$50,000-$59,999	3.5	3.7	N/A	N/A
$60,000-$69,999	1.6	1.7	N/A	N/A
Over $70,000	2.6	2.5	N/A	N/A

Mean age of farm operator was 50.3 years from the Census of Agriculture and 50.4 years from our weighted survey respondents.

As indicated in Table 2, the weighting scheme had little effect on the distribution by age, education or net family income. In addition, it appears that our sample (weighted or unweighted) distributed by age, education and net family income adequately represents the population as described in the 1987 Census of Agriculture.

Appendix Table A.3. Comparison of weighted and unweighted respondents' farm size characteristics to characteristics of total farm population in Wisconsin

	Sample of Operators			Farm Population[a]	
	Unweighted		Weighted		
Farm characteristics	Number	Percent	Percent	Number	Percent
Average farm size, acres					
1 to 9	62	10.0	6.1	4,012	5.3
10 to 49	32	5.1	4.9	8,778	11.7
50 to 179	268	43.0	43.2	27,498	36.6
180 to 499	237	38.1	41.2	28,828	38.4
500 to 999	22	3.6	4.4	4,923	6.5
1,000 +	1	0.2	0.2	1,092	1.5
	622			75,131	
Gross farm sales					
Less than $10,000	113	18.1	31.1	23,382	31.1
$10,000 to $99,999	341	54.9	48.5	36,392	48.5
$100,000 or more	168	27.0	20.4	15,357	20.4
	622			75,131	

Source: 1987 Census of Agriculture, Volume 1 Geographic Area Series, Part 49. Wisconsin State and County Data.

It would appear that our sample (weighted or unweighted) roughly reflects the population with regard to size of farm if farm size is measured in acres. There is a large discrepancy, however, between the distribution of the farm population across gross sales categories and the distribution of our unweighted sample by gross sales. The weighted sample will very closely resemble the farm population in this category because the weights were based, in part, on the value of gross sales.

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