

AgrAbility of Wisconsin Impact Evaluation*

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Since 1991 AgrAbility of Wisconsin staff has been helping Wisconsin farmers with disabilities succeed in farming. During that time more than 1,200 farmers have received information and worksite assessment plans and nearly all the plans have been implemented. In 2003, the National AgrAbility Project conducted an impact survey of farmers who were clients in state projects. Two hundred AgrAbility of Wisconsin clients participated in a direct-mail evaluation to measure the impact of the AgrAbility program. The impact evaluation addressed the tasks performed before and after acquiring a disability, the quality of the assistance, and the impact of the assistance on the farm's productivity and financial return.

Data from the Wisconsin farmers indicate some differences from the 1068 clients surveyed in the national study. Since a majority of the Wisconsin group derived some income from dairy, many differences were attributed to the number of dairy farms. Results indicate that the AgrAbility of Wisconsin program is successful in its mission of helping farmers with disabilities continue working on the farm worksite.

Since 1991, AgrAbility has been funded through the U. S. Farm Bill and administered by the USDA-Cooperative States Research, Education, and Extension Service. Currently funds are awarded for 25 state/regional projects and one national project. One of the elements of the national project workplan was to evaluate the effectiveness of the state projects as a group in providing direct assistance to farmers and ranchers with disabilities. Anticipated outcomes of this study included a greater awareness of the perceived impact of the disability on the farm, factors that influence positive outlook on the future, and reported ability to function on the farm.

Methods

In 2003, the National AgrAbility project conducted an impact survey of farmers who were served by eight state projects, including Wisconsin (Meyer et al., 2005). The other state projects were Colorado, Iowa, Missouri, Minnesota, Mississippi, Nebraska, and Utah. The National AgrAbility Project staff prepared and administered a survey instrument to evaluate the impact of the state projects in the U.S. A Dillman style mail-based questionnaire was sent to 1016 clients who had been served by one of the eight state projects (Dillman, 1978). The national project staff prepared the materials and the state project staff prepared cover letters and addressed and mailed the materials. Included in the mailing was a stamped return envelope for the participant to return the completed survey to the national project. Ten to fourteen days later a reminder postcard was sent to

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each participant by the state project staff. After another ten to fourteen days a new cover letter and the survey materials were sent to each participant, again by the state staff. The return envelopes were pre-addressed to return the completed surveys to the national project.

The resultant survey instrument had thirty questions (Meyer and Fetsch, 2004). The first eight questions were developed to evaluate the respondent's role on the farm, current work status, and what work s/he performed before and after the onset of the disability. Additional questions were designed to obtain their perceived ability to work, their opinion of the assistance they received, and the impact of the disability and assistance on the farm's productivity and financial return. Additional questions were designed to obtain demographic information (Meyer and Fetsch, 2004). The Institutional Review Board (IRB) at the University of Wisconsin-Extension approved the survey instrument and the process for administering it. The state project staff participating in the evaluation obtained IRB approval at their respective institutions. The participant's names and addresses were never available to national project staff.

The farmers surveyed were those whose cases were active during the period of April 1, 1998 to March 31, 2002. Eight states participated in the national survey including AgrAbility of Wisconsin.

For the eight states, surveys were mailed to 1,016 participants. A total of 618, non-duplicated surveys were returned and completed to the National AgrAbility Project. State projects reported the number returned to their offices as undeliverable as 61, for a total of 955 successfully mailed. Of the 955 surveys that were successfully delivered, 618 valid surveys were entered into the database for analysis with a final response rate of 64.7 percent.

For the Wisconsin program, 200 clients, which are a part of the 1,016, received questionnaires and 116 were completed and returned for a 58.0 percent response. The data were entered into SPSS (Statistical Package for the Social Sciences) for analysis. The data were verified to eliminate duplications and participants under eighteen years old were asked to have parent or guardian complete the survey to eliminate the need for informed consent required for minors.

Results

For the Wisconsin respondents, the average age was 52.1, which was very close to the 53.3 years for the national group, Table 1. Years involved in agriculture for the Wisconsin group was 33.2 which is very similar to the National group, Table 1.

The gender distribution was 87.2 percent males and 12.8 percent females for the Wisconsin group, which is two percent more males than the national group, Table 1. A greater percent of the participants were married in the Wisconsin group (78.0 percent) than the National group (70.7 percent), Table 1.

Table 1. General demographics-age, marital status, working status and farm operation.

	National	Wisconsin
Average Age	53.3 (S.D. = 12.5)	52.1 (S. D. = 14.4)
Years involved in agriculture	33.0 (S.D. = 15.1)	33.2 (S. D. = 13.9)
Gender, % (Wisconsin, N = 109; National, N = 533)		
Female	14.8	12.8
Male	85.2	87.2
Marital Status, % (Wisconsin, N = 109; National, N = 534)		
Single	13.2	9.2
Married	70.7	78.0
Divorced	11.8	10.1
Widowed	4.3	2.8

The working status of the Wisconsin respondents was 65.7 percent full time farmers and 24.1 percent part time farmers, Figure 1. The remainder were unable to work (7.4 percent), retired (0.9 percent) or looking for work (1.9 percent). The major differences between the two groups were full time farmers, which was higher for the Wisconsin group, and unable to work and retired farmers, which were much higher for the national group.

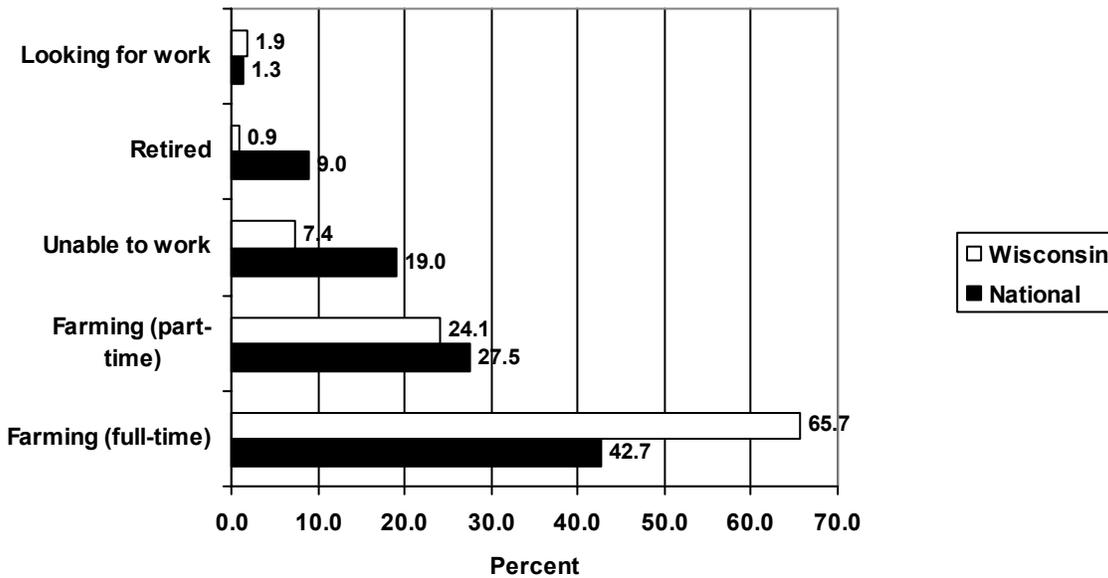


Figure 1. Current employment status of survey participants (Wisconsin, N = 108; National, N = 543).

The participants were able to provide more than one response when asked what best describes their farm with respect to the various enterprises, Figure 2. Sixty percent of the Wisconsin participants were in dairy while only 18.7 percent of the national group was dairy. About two-thirds of the national dairy respondents were from the Wisconsin group.

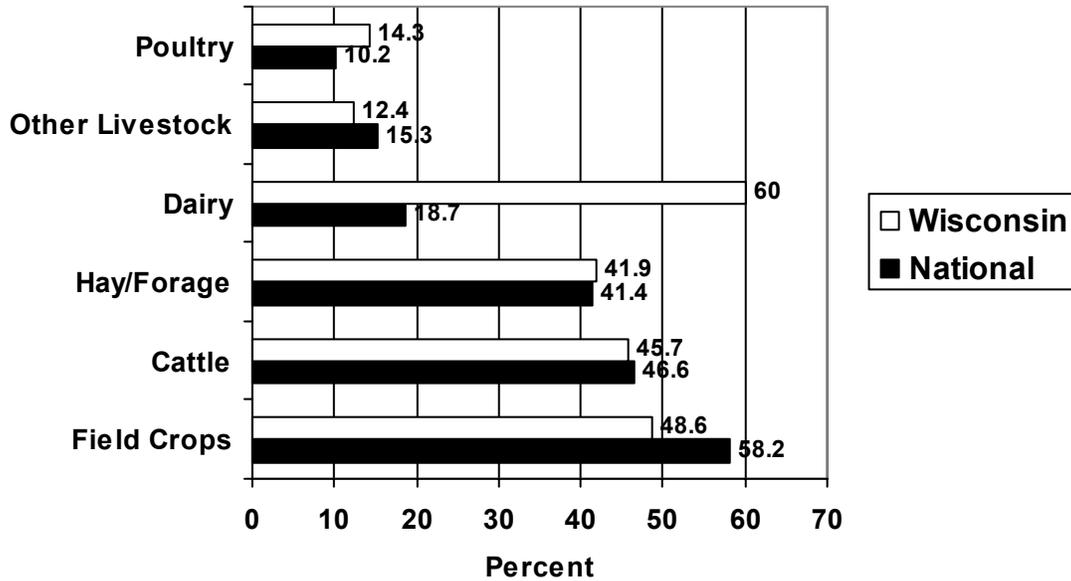


Figure 2. Type of farming operation (Participants were allowed multiple responses.).

The percentage in field crops was higher for the national group. The results of the other types of operations were very similar.

The participant's role on the farm was primarily owner/operator at 86.4 percent which was much higher than the national group which was at 65.6 percent, Figure 3. The other

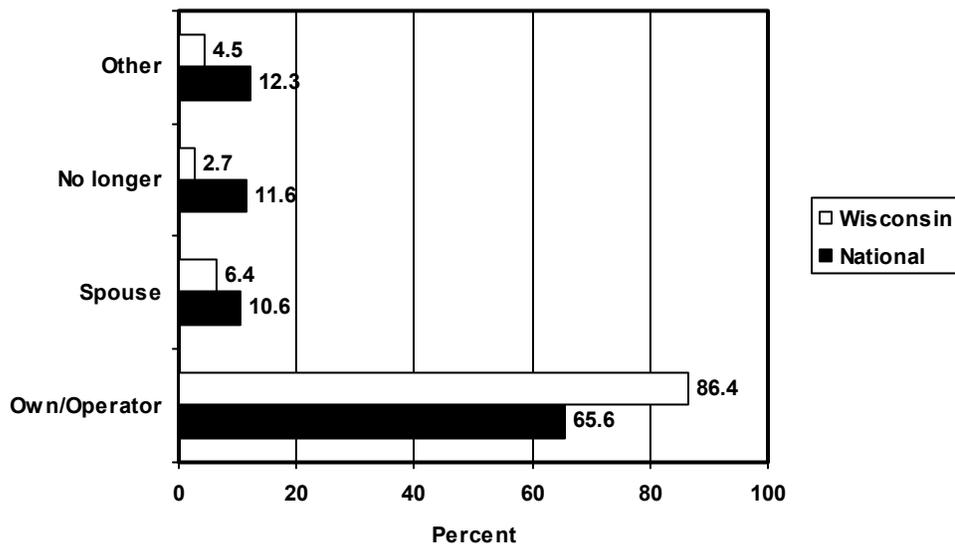


Figure 3. Participant's role in the farm operation (Wisconsin, N = 110; National, N = 558).

roles (spouse, no longer farming, and other) were higher for the national group than for Wisconsin.

The reported causes of the disability were health conditions (44.4 percent), agricultural incidents (45.4 percent), and non-agricultural incidents (10.0 percent) for the Wisconsin participants, Table 2. Cause of disability due agricultural incidents was higher for the Wisconsin group, while the non-agricultural incidents were higher for the national group.

Table 2. Cause of the disability (Wisconsin, N = 99; National, N = 496).

Reported cause	National	Wisconsin
Health condition	47.7	44.4
Agricultural incident	34.5	45.4
Non-agricultural incident	17.7	10.0

The high rate for causes due to health conditions was primarily chronic illnesses. For the Wisconsin group the most frequently reported disabilities were arthritis (28.6 percent), back injury (19.6 percent), amputation (10.7 percent), and joint injury (9.8 percent), Figure 4. The other category (21.5 percent) was primarily chronic illnesses such as diabetes, muscular dystrophy, hearing impairment, polio, lung disorder, and heart disease. In nearly all cases, large differences were present between the Wisconsin and national group. The largest difference occurred in arthritis which was 28.6 percent for the

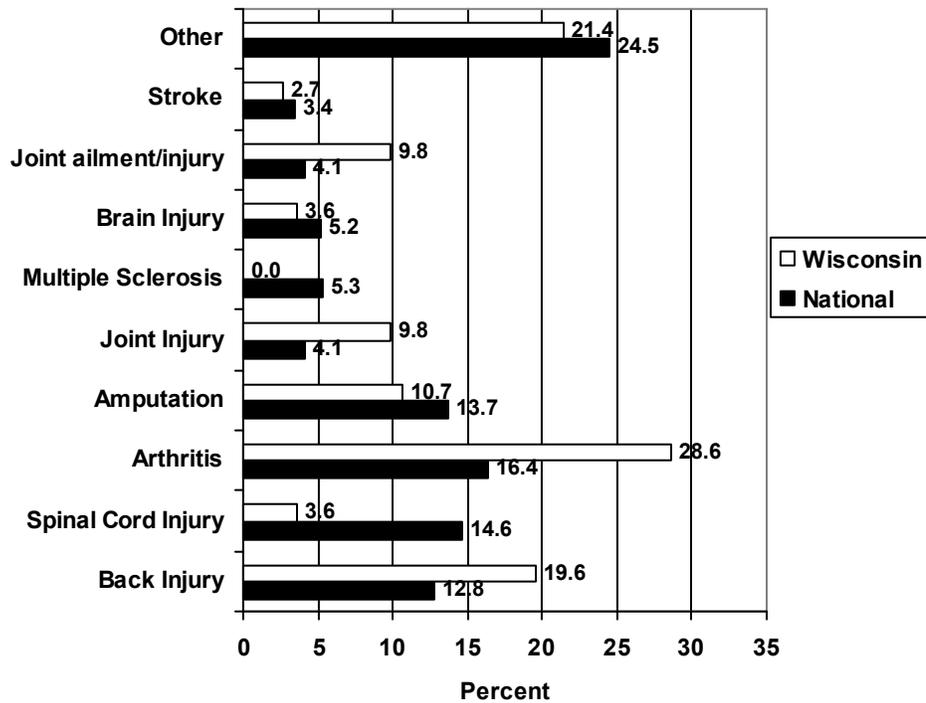


Figure 4. Types of disability for participants (Wisconsin, N = 112; National, N = 561).

Wisconsin group and 16.4 percent for the national group. Another notable difference was that none of the Wisconsin respondents had multiple sclerosis while the national group reported at 5.3 percent.

The participants were asked what tasks they performed prior to the disability and after acquiring the disability. In nearly all cases within the Wisconsin group, the activity decreased after their disability was acquired, Figure 5. There were small increases in office work, occasional care and feeding of animals and household chores. National results follow a pattern similar to that of Wisconsin, but the degree of change is slightly different. For example, office work increased 17.4 percent for the national group and 3.5 percent for the Wisconsin group.

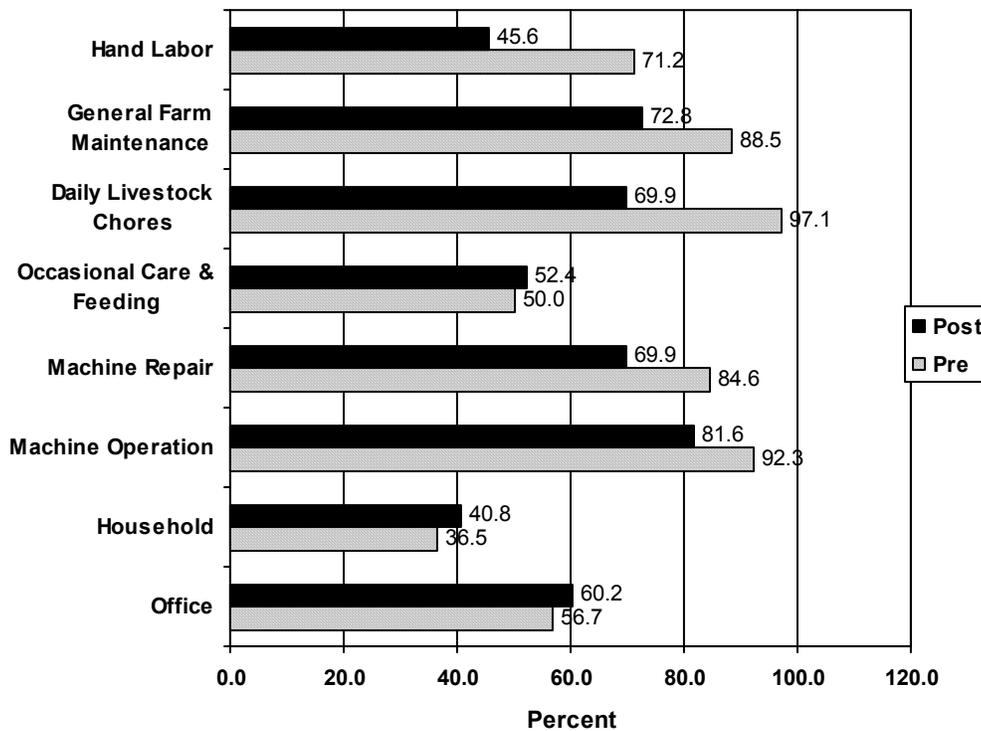


Figure 5. Reported activities before and after disability.

Participants were asked about their ability to currently complete four farm tasks. A five-point Likert scale ranging from ‘strongly agree’ to ‘strongly disagree’ was used. A rating of five was assigned to ‘strongly agree’ with one assigned to ‘strongly disagree’, with a 6th option ‘does not apply to me’. For the Wisconsin group (not including those that answered does not apply), the ratings ranged from 3.39 for ability to ‘farm independently’ to 3.58 for ability ‘operate machinery’, Figure 6. The national group ratings were slightly lower (0.09 to 0.20) than the Wisconsin group.

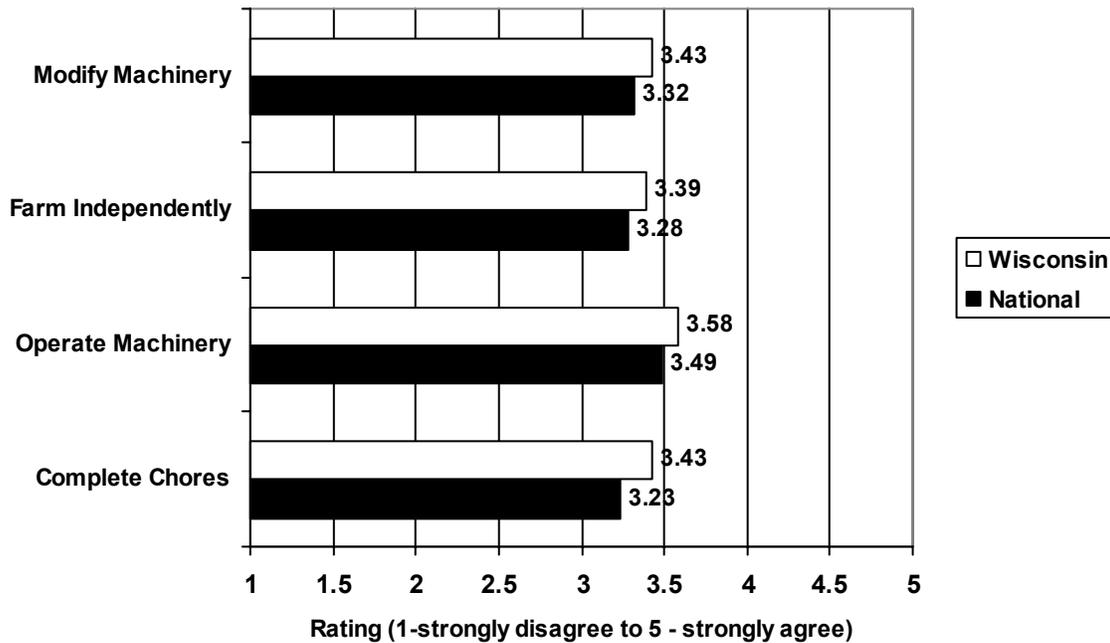


Figure 6. Reported ability to currently perform tasks.

The participants were asked what assistance they received from the AgrAbility program from a list of twelve possibilities. Those receiving more than a ten percent response are shown in Figure 7. For the Wisconsin group, the two top responses were technical assistance (50.0 percent) and referral to a funding source (46.1 percent), which were greater than the national group. Other assistances receiving more than thirty percent from

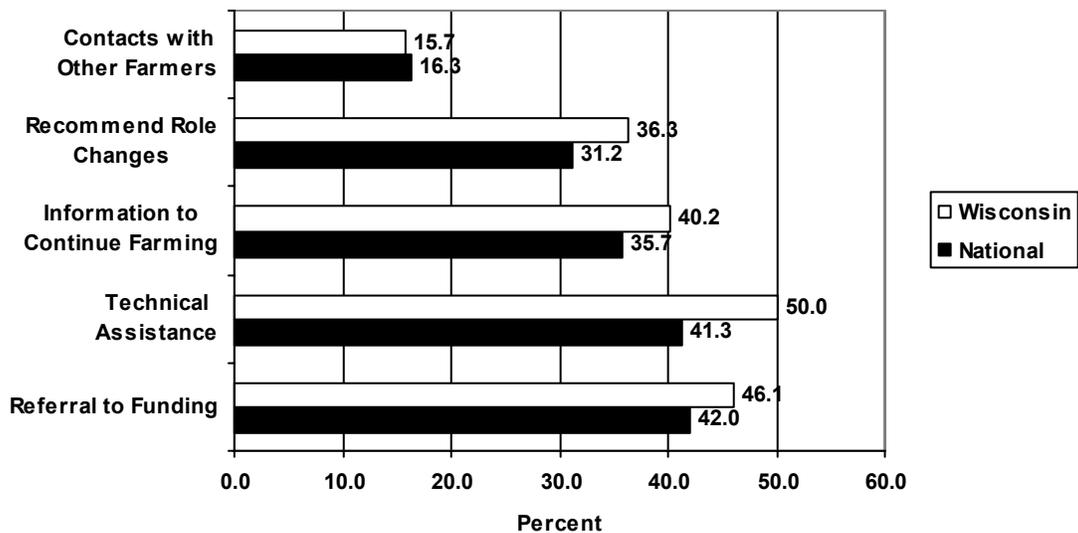


Figure 7. AgrAbility program assistance received by the participants.

both groups were: recommend role changes on the farm and information to help continue farming. Providing contacts with other farmers with disabilities received 15.7 percent response, similar to the national group. Other possible answers were ‘help determining when to use a custom operator’, ‘alternative agricultural enterprises’, and ‘off-farm employment’.

To obtain additional information, a series of questions was designed to determine what assistance participants received using a five-point Lickert scale ranging from ‘strongly agree’ to ‘strongly disagree’, with a 6th option ‘does not apply to me’. The questions focused on a small number of activities that state project staff conduct, such as accommodations and modifications of the home, farm buildings, and equipment. For the Wisconsin participants (not including those that answered ‘does not apply’), the average response ranged from 2.17 for home modifications to 3.35 for machinery modifications, Figure 8. The Wisconsin AgrAbility staff focuses their assistance at the work site on the farm and encourages their clients to contact the local Independent Living Center for technical assistance in the home. The national group is similar to the Wisconsin group except for the ‘home modifications’. In both cases the equipment modifications received the highest ratings, 3.35 for the Wisconsin group and 3.32 for the national group.

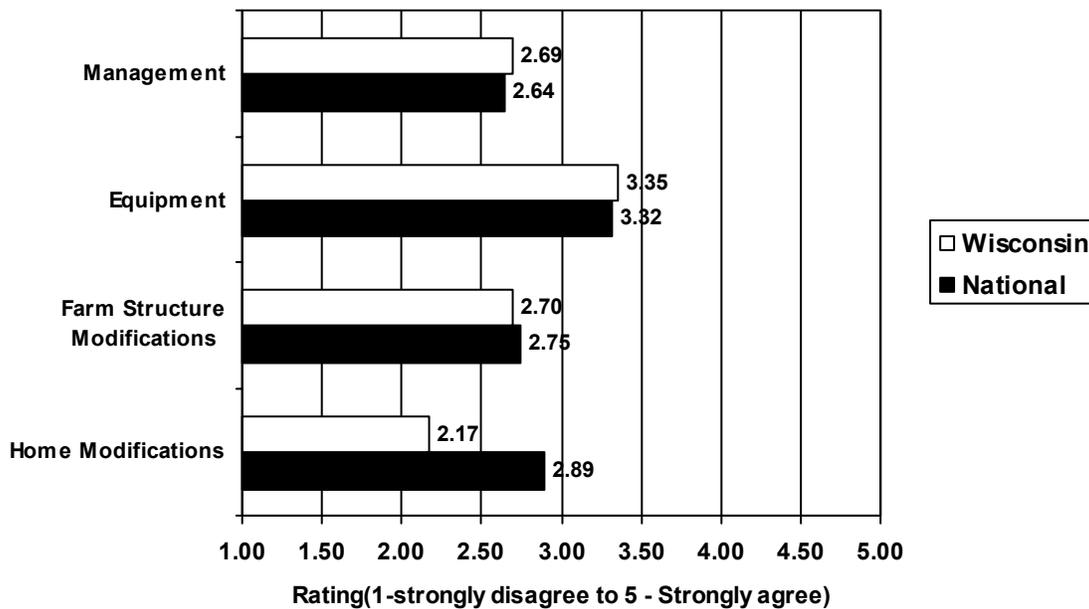


Figure 8. Reported assistance received from AgrAbility projects.

The impact of both the disability and AgrAbility’s assistance was evaluated with regard to the farm’s financial return and the farm’s productivity using a five-point Likert scale. The responses available ranged from ‘greatly decreased’ to ‘greatly increased’ with the neutral response being ‘no impact’.

The impact of the disability on financial return and farm productivity had an average near two, which was identified as ‘decreased’, Figure 9. The two groups of participants were very similar.

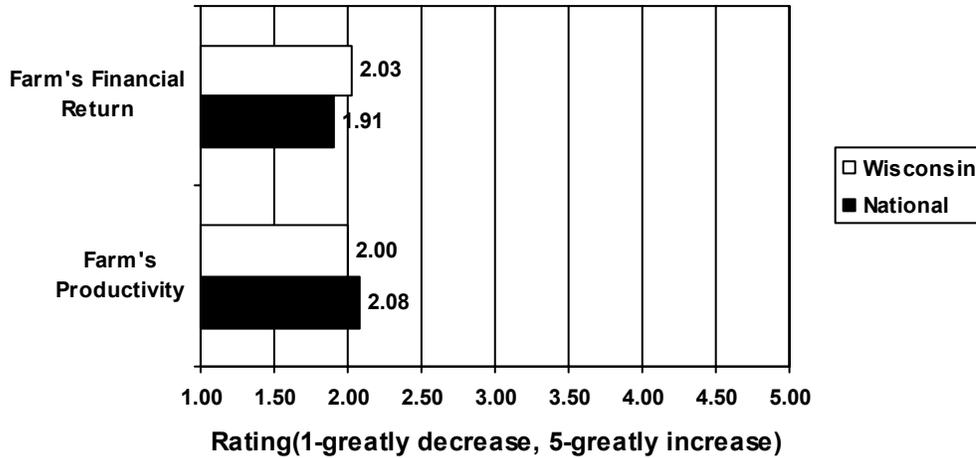


Figure 9. Impact of condition or disability on the farm’s financial return and productivity.

The impact of AgrAbility’s assistance on financial return and productivity had an average response of just over 3.00 which was between ‘no impact’ and ‘increased’, Figure 10. For the Wisconsin group, 43.5 percent indicated the assistance increased the farm’s productivity and 39.1 percent indicated ‘no impact’. For financial return, 35.5 percent of the Wisconsin group indicated an increase and 52.7 percent indicated ‘no impact’. The National participants had ratings which were somewhat lower, closer to the ‘no impact’ response.

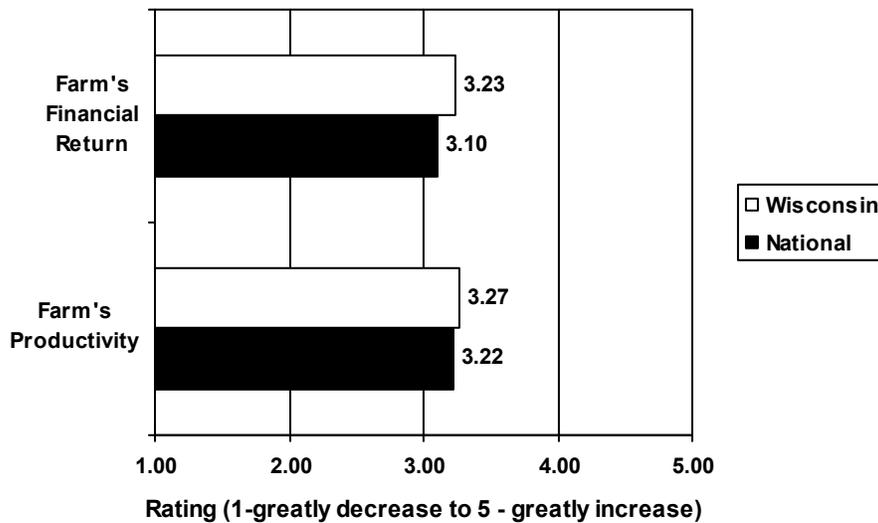


Figure 10. Impact of assistance on farm’s financial return and productivity (ratings go from one for decreased greatly to five for increased greatly).

Summary:

AgrAbility of Wisconsin participants are more involved in dairy and more are owner/operators compared to the national group of participants. The national and state participants continue to do many work tasks on the farm after the onset of the disability. The AgrAbility programs have increased the financial return and productivity on many farms after a worksite assessment plan for assistive technology has been implemented.

References:

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