Socioeconomic Impacts of the Conservation Reserve Program in North Dakota

F. Larry **Leistritz**
Nancy M. **Hodur**
Dean A. **Bangsund**

Long-term land retirement is an important agricultural policy tool, particularly in the Great Plains States. This article examines the effects of the Conservation Reserve Program (CRP) for participating landowners and for communities in areas with high CRP participation. Landowners generally felt that the CRP had produced substantial environmental benefits while providing income stability for participants. Community leaders also recognized the environmental and recreational benefits of the CRP, but were concerned about negative impacts on agricultural supply and service sector firms.

Long-term retirement of cropland has been used for nearly 50 years in the United States as a policy tool to both control agricultural supply and promote conservation. Land retirement programs have been particularly important to the Great Plains States, where much of the farmland is semi-arid, subject to wind erosion, and in some areas economically marginal for crop production. Since 1985, cropland retirement has been an integral part of U.S. farm policy through the Conservation Reserve Program (CRP). Implemented as part of the 1985 Food Security Act (Public Law 99-198), the program was designed to protect highly erodible lands, as well as to augment supply control efforts. In exchange for a rental payment, landowners agree to retire from crop production land that meets eligibility criteria. The CRP was renewed in the 1990 Farm Bill, but the eligibility criteria were revised to place more emphasis on water quality, wildlife habitat, and other environmental concerns. The 1996 Farm Bill (Federal Agricultural Improvement and Reform Act of 1996) again revised the program's enrollment criteria, placing even more emphasis on environmental sensitivity. By fall 2000, the program had enrolled about 31.4 million acres nationwide. North Dakota ranked third among States, with 3.2 million contracted acres, or 11 percent of the State's total cropland. Although a fuller understanding of the socioeconomic impacts of the CRP nationwide must await studies in other regions, the North Dakota experience provides important clues as to the program's effects.

While long-term land retirement programs are popular with participating landowners and offer a combination of supply control and environmental benefits, their economic impacts in areas with high participation have long been a concern. Reductions in cropland acreage reduce demand for agricultural inputs such as fuel, fertilizer, chemicals, farm labor, and machinery. Fewer inputs, coupled with fewer crops produced and marketed, can hurt farm supply and service sector businesses, as well as force farm operators to seek off-farm income opportunities, speeding farm consolidation and rural-to-urban migration. Even so, land retirement has a number of benefits. The CRP has enhanced wildlife habitat in the Northern Great Plains region, which has rejuvenated wildlife populations, expanded hunting opportunities, and boosted recreation-related expenditures. In addition, the CRP has helped to stabilize the revenue stream of participating landowners during a period characterized by both adverse weather and volatile market conditions.

F. Larry Leistritz is a professor, Nancy M. Hodur is a research associate, and Dean A. Bangsund is a research scientist in the Department of Agribusiness and Applied Economics, North Dakota State University, Fargo. The article is based on work supported by the North Dakota Agricultural Experiment Station and the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, as part of the Regional Center for Rural Development in North Dakota.

Table 1

Changes in population, employment, and farm numbers by study county, North Dakota

Population and number of farms have declined

County	Population		Employment	Number of farms	CRP acreage	
	2000	1990-2000	1990-2000	1987-1997	1996-2000	Share of cropland
	Number	*Percent change*				*Percent*
Adams	2,593	-18.3	-1.0	-10.5	-12.6	21.5
Bowman	3,242	-9.8	1.1	-8.2	-29.5	20.8
Hettinger	2,715	-12.2	-17.9	-17.0	10.6	18.7
Burke	2,242	-25.3	-7.0	-8.8	-8.7	11.2
Divide	2,283	-21.3	3.6	-10.7	-25.1	15.1
Eddy	2,757	-6.6	-7.0	-11.7	26.9	27.1
Griggs	2,754	-16.6	23.6	-19.6	105.2	21.4
Nelson	3,715	-15.8	-15.3	-16.5	108.1	24.2
Kidder	2,753	-17.4	-17.9	-7.9	3.2	26.4
Logan	2,308	-18.9	-10.0	-24.5	4.6	22.5
Stutsman	21,908	-1.5	23.8	-12.0	8.6	18.1
McHenry	5,987	-8.3	-8.4	-6.1	-3.1	17.2
Pierce	4,675	-7.5	2.3	-15.1	-2.8	17.5
Sheridan	1,710	-20.4	-16.3	-19.1	27.9	18.0
Ransom	5,890	-0.5	22.0	-2.6	66.3	19.6
Sargent	4,366	-4.0	42.4	-17.0	45.5	10.2

Source: Compiled by the authors from Census Bureau, Farm Service Agency, and North Dakota Job Service data.

Study Counties Suffered Population Decline

Interviews were conducted with a cross-section of agricultural and community leaders in each study county in order to gain an understanding of recent socioeconomic changes in the area (population trends, economic shifts), the effects of the CRP on various aspects of the community, and the leaders' overall evaluation of those effects (see "Procedures"). Leaders in all study counties identified the long-term trends of farm consolidation (fewer, larger farms), declining populations, and depressed commodity markets as major issues affecting their communities. Farm consolidation was prominent in each study area, and viewed as a catalyst for outmigration and depopulation, further pressing local businesses already subject to growing competition from larger communities.

Each of the study counties lost population during the 1990s, with losses ranging from 0.5 to 25.3 percent (table 1). Nine counties recorded declines in total employment from 1990 to 2000, ranging from 1 to 17.9 percent, while seven registered gains of 1 to 42 percent. The number of farms also dropped in all counties between 1987 and 1997, with reductions ranging from 2.6 to 24.5 percent (table 1).

One positive trend noted by some leaders was increased recreational activity, especially hunting, in their areas. In recent years, wildlife populations have rebounded, attracting hunters from other parts of the State and out of State. Recreational spending was perceived to be very positive for local businesses, such as motels, cafes, gas stations, and grocery stores. In some areas, guide services, outfitters, and bed and breakfast operations had recently grown.

CRP Effects Viewed as Mixed

Most leaders identified both positive and negative effects of the CRP. The following are the positive aspects most frequently mentioned:

- *Income stability for participating landowners.* The guaranteed income from CRP rental payments in some cases improved farm viability. Some farm operators were able to stay in business while others used the payments to help transition to another career or to retire.

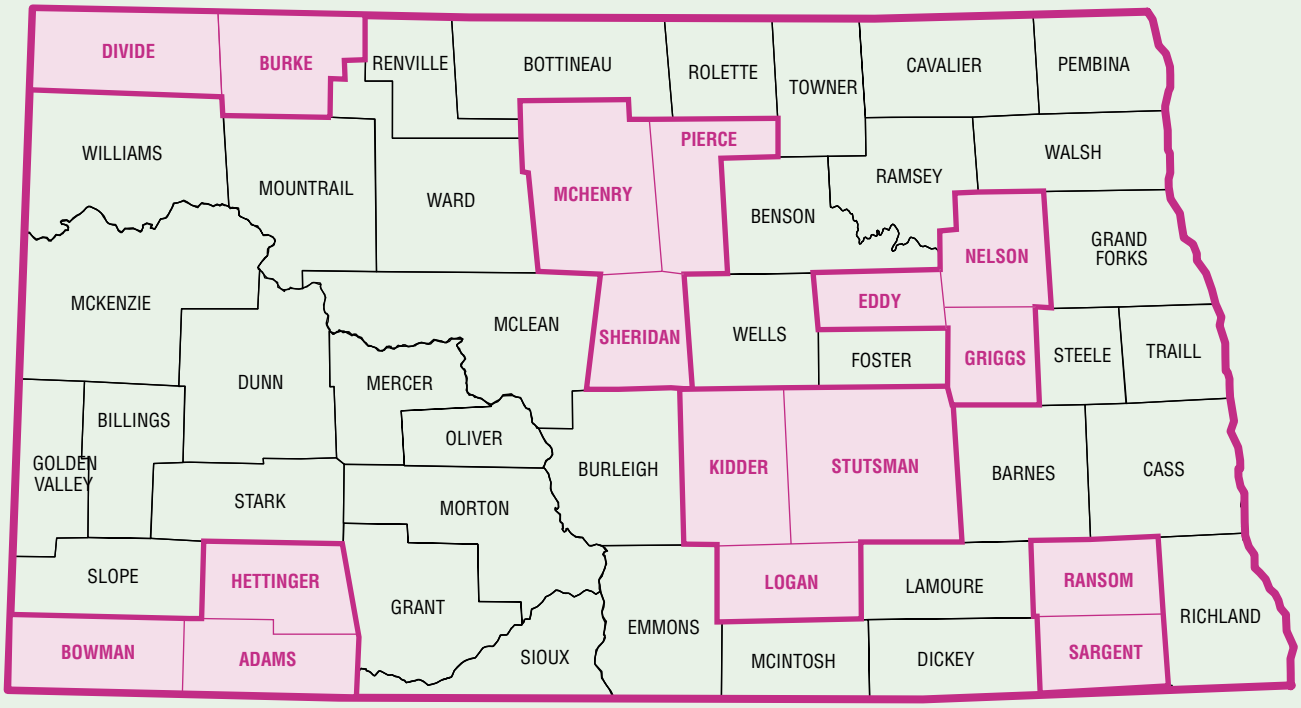
- *Environmental benefits.* Thriving wildlife populations have opened up recreational opportunities, particularly hunting. The influx of visitors has benefited select local businesses, particularly motels, restaurants, gas stations, and hunting related services. On the other hand, some leaders reported heightened concerns over hunting access, especially for local residents.

Procedures

Sixteen North Dakota counties with relatively high CRP participation were selected and grouped into six study areas. Each study area and the counties that comprise the study area were selected to represent the diverse agriculture and natural resource characteristics in North Dakota. Data collection was divided into three distinct components: (1) personal interviews with community leaders, (2) a CRP contract holder survey, and (3) a community leader survey. Individuals to be interviewed were identified based on their roles as elected or appointed governmental officials (e.g., mayor, county commissioner, economic development director), their roles in business (elevator and implement managers, bankers, small business operators), the community (county weed board, newspaper editors, clergy), and educational organizations (county extension agents, school administrators). Other community leaders were identified using a snowball technique, whereby individuals interviewed were asked to suggest others who would be knowledgeable about the issues discussed. The individuals interviewed thus included both formal and informal leaders. In addition to the personal interviews, the leaders were also asked to fill out a written questionnaire. Of the 92 individuals who participated in the leadership interviews, 57 (62 percent) completed and returned their questionnaire.

A list of current CRP contract holders in the16 study counties was obtained from the Farm Service Agency (FSA), USDA. The FSA administers the program and awards contracts to landowners based on a landowner's ability to meet program eligibility criteria. An Environmental Benefits Index prioritizes contract offers and determines program eligibility (P.L. 104-127). A survey was mailed to a random sample of 3,150 North Dakota CRP contract holders (program participants) in February 2001. One followup mailing resulted in 1,018 usable surveys for a response rate of 32.3 percent. The questionnaire addressed a number of topics, including (1) CRP land characteristics; (2) effects of the CRP on area agriculture, agribusinesses, and on the respondent's farming operation (if applicable); (3) CRP effects on recreation; (4) respondent's attitudes toward CRP; and (5) respondent characteristics. Because most of the contract holders surveyed were also landowners, the terms contract holder and landowner are used interchangeably.

Study Areas



- *Emergency haying and/or grazing.* The CRP contains provisions to allow contract holders to hay and/or graze land enrolled in the program under certain emergency conditions. While leaders agreed that emergency haying and/or grazing was very helpful to livestock producers, possibly enabling some to retain their herds during periods of drought or flooding, some felt that opening CRP land put landowners without CRP land at an unfair disadvantage. Others felt that opening CRP land for haying and/or grazing depresses prices, hurting individuals that sell hay.

Negative aspects most often identified by leaders included:

- *Contraction of the farm supply and service sector.* Reduced demand for farm inputs (seed, fuel, fertilizer, chemicals, crop insurance) and a smaller crop to market were reported to lead to contractions for farm supply businesses and elevators in the area. These effects were sometimes exacerbated by the concentration of CRP acreage in certain localities (i.e., areas with high percentages of highly erodible land).

- *Decline of rural populations.* Participants were reported to use the program to transition to retirement or to another career, leaving the area and taking their CRP income with them. Further, many leaders felt that the program has made it more difficult for young people to assemble enough land for an economic farming unit, or for an established operator to find land to augment an existing unit, further exacerbating depopulation trends.

- *Noxious weed problems.* Absentee CRP landowners were often criticized for neglecting weed problems until complaints were registered with the county weed board. In some cases, the board seemed unable to deal with the problem.

Across the six study areas, about 34 percent of the local leaders interviewed indicated that the overall effect of the CRP was positive, while 43 percent believed the effect was negative. The remainder (23 percent) felt that the effects were mixed and did not wish to rate them as either positive or negative. In four of the six study areas, the positive evaluations outnumbered the negative ones. The areas where negative evaluations predominated were the two eastern county groups (i.e., Eddy, Griggs, and Nelson Counties; Ransom and Sargent Counties). These counties all experienced substantial increases in CRP acreage over 1996-2000 (table 1), which may have contributed to the leaders' concerns.

The leaders who felt the CRP had an overall negative effect generally cited the program's impact on the farm supply and service sector and its role in farm consolidation and the declining general population. These leaders often stated that the program was enrolling too much productive farmland and bidding up rental rates. They felt that the change in enrollment criteria to include environmental benefits (e.g., water quality), rather than considering only highly erodible land for enrollment, was a mistake.

Leaders who viewed the CRP positively believe that farm consolidation and depopulation would have occurred regardless of the CRP and that the program was simply part of the transition. These leaders often stated that the CRP helped many farmers, giving them a return on their less productive land, some of which should never have been tilled in the first place. For others, it offered a graceful transition to retirement or another occupation. They believe the CRP has helped make farming in their area more sustainable, both economically and environmentally. Further, leaders who view the CRP positively almost universally cited the program's environmental and wildlife/recreational benefits, viewing hunting and other recreation as a basis for local economic growth.

Most Contract Holders Were Farmers or Retired

Contract holders' average age was 61, with 76 percent over age 50. This supports the observations of community leaders that the CRP has been popular with older landowners. About 61 percent of landowners lived in the county where their CRP tract was located, 16 percent lived in an adjacent county, 10 percent lived elsewhere in North Dakota, and only 13 percent lived outside the State. Wherever they were residing, the respondents typically had been long-term residents. On average, the contract holders reported living in their county of residence for 43 years. Only 11 percent had lived in their county of residence less than 10 years. These findings appear to refute the local leaders' observation that many CRP participants left the area after enrolling their land.

Half of the respondents were currently farming, of which 83 percent had been farming 20 years or more. When asked if they had ever considered farming to be their primary occupation, 66 percent responded affirmatively. When those who no longer farm were asked if participation in the CRP influenced their decision to quit, only 23 percent indicated that it had.

Most CRP Tracts Were Relatively Small

Most contract holders enrolled relatively small tracts of land into the CRP. The average acreage enrolled was 283 acres, 42 percent of contract holders had enrolled 150 acres or less, and less than one-third reported enrolling more than 300 acres. The average farm size for those who still farm was 1,778 acres. Thus, the tracts enrolled in the CRP were typically small and only a fraction of the land needed for an economically viable farming unit in the area. Respondents indicated that the yields on land enrolled in the CRP were generally lower than yields on their other land—5.3 percent lower on average. On the other hand, input costs (e.g., fertilizer, chemicals, fuel) were generally reported to be the same on CRP land as on other land.

Leading reasons for enrolling land in the CRP were to reduce erosion/increase soil fertility (24 percent), reduce income risk (23 percent), benefit economically (22 percent), and provide a transition to retirement (11 percent). The responses were similar across the six study areas, although soil fertility/erosion issues were more important in the two western areas while respondents in the two eastern areas most often regarded the program as economically attractive.

CRP Reduced Landowners' Risk and Stabilized Income

Among the respondents who were currently farming, 72 percent indicated that CRP participation had reduced their income risk or stabilized their income, while 40 percent credited the program with helping their transition to retirement. About 35 percent indicated that CRP helped them transfer their farm property to the next generation, but only 22 percent felt that enrollment increased the value of their land or made it easier to sell. The responses to these questions varied among the study areas, but the role of the CRP in reducing income risk was widely recognized—at least 65 percent of contract holders in each study area indicated that this was important to them.

The respondents who currently farmed also were asked whether various aspects of the CRP were important in keeping their farm operation viable. Removing marginal land from production was seen as important by 59 percent of respondents (table 2), while almost 60 percent indicated the program provides a more stable income than crop production. The role of CRP income in helping pay long-term debt was viewed as very or somewhat important by 37 percent of contract holders, while about one-third recognized the importance of CRP income to offset losses from other land, to pay family living expenses, or to pay short-term debt (table 2). However, only 4 percent felt that the opportunity to supplement income with hunting revenue was important. When contract holders were asked if the CRP had been instrumental in keeping them on the farm, 31.5 percent of respondents somewhat or strongly

Table 2
Importance of various aspects of the Conservation Reserve Program in keeping farms viable, North Dakota, 2001
Retirement of marginal land and income stability are rated highly by CRP participants

CRP benefit	Average score[1]	Percent very or somewhat important
Provide more stable income than crop production	2.4	59.5
Remove marginal land from production	2.4	59.4
Help pay long-term debt	3.1	36.9
Offset income loss from other cropland	3.2	33.6
Provide income for family living expenses	3.2	31.7
Help pay short-term debt	3.2	31.6
Supplement income with hunting revenue	4.7	4.3

[1]Based on a scale of 1 for very important to 5 for not important. Lower numbers indicate a greater importance than higher numbers.
Source: North Dakota Conservation Reserve Program Survey.

Table 3
Effects of the Conservation Reserve Program on agricultural service businesses, North Dakota, 2001
Agricultural supply/service businesses were seen as negatively affected

Type of business	Average score[1]	Percent slight or substantial negative effect[2]
Elevators and grain handling facilities	3.7	65.5
General farm supply	3.7	65.4
Machinery and equipment dealers	3.6	64.5
Custom operators	3.4	52.5
Agricultural lenders	3.1	39.3

[1]Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.
[2]Respondents who answered "do not know" were excluded from the calculation of these percentages.
Source: North Dakota Conservation Reserve Program Survey.

agreed, supporting leaders' observation that the CRP helped some farm and ranch operators stay in business.

CRP Had Little Effect on Rental Rates

Contract holders were asked to evaluate the effect of the CRP on cash rental rates and on the availability of land to rent in their area. Responses varied by area, but most respondents believed that local cash rents were either higher than or equal to their CRP payment. About 28 percent of respondents indicated that cash rents for similar land in their county were higher than their CRP payment (by an average of $9.11 per acre), whereas 18 percent felt that cash rents were lower than their CRP payment (by an average of $8.82 per acre). The remaining respondents (54 percent) believed that cash rents and CRP payments were nearly the same. When asked if the CRP had increased or decreased cash rents in their area, 66 percent of respondents felt the CRP had no effect on rental rates, while 32 percent said cash rents had increased as a result of the CRP and 2 percent felt they had decreased. When responses were averaged, cash rental rates were estimated to have increased by 4.4 percent as a result of the CRP. Responses were similar when contract holders were asked if the CRP had affected the amount of cropland for rent in their area. More than 59 percent of respondents indicated that the CRP had reduced the amount of cropland for rent, while 39 percent reported there had been no effect and 2 percent felt the amount of land available for rent had increased.

Contract holders generally bemoaned the effects of the CRP on agricultural supply and service sector businesses (table 3). Almost two-thirds of respondents felt the CRP had negative effects on (1) elevators and grain handling facilities, (2) general farm supply businesses, and (3) machinery and equipment dealers. Just over half felt that custom operators (i.e., persons who perform selected agricultural activities, such as spraying or harvesting, for hire) had been hurt, but only 39 percent perceived negative effects for agricultural lenders. In general, the contract holders appeared to agree with the agricultural and community leaders in their view that the CRP had a generally negative effect on the agricultural supply and service sector.

CRP Boosts Wildlife and Recreation

Most survey respondents believe that the CRP has led to population growth of major wildlife species in North Dakota. Almost 82 percent of respondents believed that the CRP had contributed to increased upland game populations (e.g., pheasant, grouse), and more than half believed that the increase was 25 percent or more (table 4). More than 90 percent of respondents believed that the CRP contributed to growing big game populations (e.g., deer), and about 63 percent suspected substantial growth. About three-fourths of respondents indicated that the CRP had contributed to growing waterfowl populations as well.

Survey respondents indicated that hunting and trapping in their county had also increased as a result of CRP (table 4). Overall, 67 percent of respondents indicated that hunting and trapping had increased, and 32 percent felt the increase had been substantial. More than 46 percent of landowners indicated that wildlife viewing/bird watching had increased; a similar percentage believed there was no effect. About 69 percent of respondents believed that convenience stores had benefited from CRP-enhanced recreation, while more than 60 percent rated the effects on restaurants, motels, and sporting goods stores as positive (table 4).

As wildlife populations have grown, access to them has become an issue. Respondents in each area believed that the amount of land posted as "no hunting" in their area

had increased since the CRP began. Overall, 61 percent of respondents indicated that posting had increased, while 36 percent indicated it had remained the same. When asked if their posting practices on their own land had changed since enrolling in the CRP, 89 percent of all respondents indicated that it had not changed.

When asked to describe hunter access to their own CRP land, respondents most often indicated that their CRP land was not posted (43 percent), whereas 40 percent post their CRP land but grant permission to hunters. About 11 percent indicated that only their family and friends are allowed to hunt, and 4 percent allow no hunting. Although fee hunting and leasing of hunting rights have become an issue in some parts of North Dakota, only about 1.6 percent of respondents indicated that they lease their CRP land (either to an outfitter/guide or to individuals) or charge a fee for hunting.

Landowners See CRP Benefits

More than 91 percent of the contract holders agreed that the CRP has been effective in reducing soil erosion, and more than 82 percent agreed with the statement that the CRP benefits farmers and sportsmen (table 5). Nearly three-fourths of respondents also agreed that the CRP is a cost-effective program to idle cropland, that the CRP has helped reduce flooding, and that the CRP had improved water quality. Opinions were more mixed regarding the CRP's effect on crop prices, the appropriateness of enrollment criteria, and the right of CRP contract holders to charge for hunting access. While a majority of respondents agreed that crop prices would be lower without the CRP, that enrollment criteria should focus on farmland characteristics (i.e., erodability) rather than wildlife habitat values, and that CRP landowners should have the right to charge for access, 20-24 percent of respondents disagreed with each of these statements (table 5).

Table 4
Effect of the Conservation Reserve Program on wildlife populations, recreational activities, and local businesses, North Dakota, 2001
Enhanced wildlife and recreation are CRP benefits

Items	Effect of CRP: Positive: Substantial[1]	Positive: Slight[2]	No effect	Negative
	Percentage of respondents[3]			
Type of wildlife:				
Upland (pheasants, grouse)	55.5[1]	31.1[2]	12.5	1.2
Big game (deer)	62.9[1]	27.9[2]	8.4	0.8
Waterfowl	46.6[1]	28.3[2]	22.9	2.1
Type of recreation:				
Hunting and trapping	31.8	35.6	28.5	4.1
Bird watching/wildlife viewing	13.8	32.4	48.6	5.3
Camping	2.9	12.0	83.1	2.0
Horseback riding	3.3	13.0	80.7	3.1
Type of business:				
Restaurants and motels	22.1	40.4	31.4	6.3
Sporting goods/supplies	19.4	44.1	34.2	2.4
Taxidermy/game processing	13.7	41.3	43.1	1.9
Convenience store	23.8	45.4	26.9	3.9
Guide services & outfitters	15.4	28.8	53.6	2.3

[1]For wildlife, change in population of 25 percent or more.
[2]For wildlife, change in population of 1 to 25 percent.
[3]Respondents who answered "do not know" were excluded from the calculation of these percentages.
Source: North Dakota Conservation Reserve Program Survey.

Leaders Less Positive Than Landowners About CRP Effects

Most of the agricultural and community leaders interviewed also completed a survey similar to the one mailed to contract holders. The two groups' opinions were in sync on many of the issues, but there were some differences. Both groups agreed that the CRP has helped stop soil erosion, benefits farmers and sportsmen, has helped reduce flooding, and has improved water quality (table 5). Local leaders more strongly felt that enrollment criteria should focus on farmland characteristics, not wildlife habitat values, and that CRP is facilitating the spread of fee and lease hunting.

However, leaders were less inclined to think that the CRP had a positive effect on local and State economies. Similarly, fewer leaders agreed that crop prices would be lower without CRP and that CRP is a cost-effective program to idle cropland. The greatest difference in opinions between the two groups concerned whether CRP contract

Table 5

Contract holders' and leaders' opinions regarding the Conservation Reserve Program, North Dakota, 2001

North Dakota landowners were more positive than community leaders about CRP effects

	Strongly or somewhat agree		Strongly or somewhat disagree		Average score[1]	
	Contract holders	Local leaders	Contract holders	Local leaders	Contract holders	Local leaders
	Percent of respondents					
CRP has helped stop soil erosion on marginal cropland (n)	91.2	93.0	3.8	5.3	4.5 (958)	4.5 (57)
CRP benefits farmers and sportsmen (n)	82.1	82.4	8.5	14.1	4.1(952)	3.9 (57)
CRP is a cost-effective program to idle cropland (n)	76.6	57.2	9.9	35.7	4.0 (932)	3.3 (56)
CRP has helped reduce flooding by reducing water runoff (n)	70.7	61.4	9.7	15.8	3.9 (949)	3.7 (57)
CRP has improved water quality in adjacent wetlands, lakes, and streams (n)	69.4	63.1	6.5	7.1	3.9 (951)	3.8 (57)
Crop prices would be lower without CRP (n)	58.9	36.8	19.7	40.4	3.6 (938)	3.0(57)
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values (n)	54.0	64.9	23.8	19.3	3.5 (933)	3.7 (57)
CRP contract holders should have the right to use that land for fee and lease hunting (n)	54.9	36.8	23.7	52.6	3.5 (951)	2.7 (57)
More land should be enrolled in the CRP (n)	47.6	19.3	21.9	57.9	3.4 (949)	2.3 (55)
CRP is facilitating the spread of fee and lease hunting (n)	42.6	63.2	15.2	10.5	3.4 (932)	3.6 (57)
CRP has had a positive effect on the state economy (n)	42.7	28.1	27.1	45.6	3.2 (939)	2.7 (57)
CRP has had a positive effect on local economies (n)	36.1	26.8	34.0	55.4	3.0 (944)	2.5 (56)

[1]Based on a score of 1 to 5, where 1 is strongly disagree and 5 is strongly agree.

holders should have the right to charge for recreational access and whether more land should be enrolled in the CRP. Contract holders registered a moderate level of agreement with both of these statements, whereas the leaders disagreed.

Leaders Suggest Program Changes

When community leaders were asked for suggestions to improve the program, their responses varied. One group felt that CRP criteria should focus on highly erodible land and that recent changes in enrollment criteria have allowed too much productive farmland to be enrolled. However, others believe that the environmental benefits gained by the focus on environmental/wildlife values outweigh the loss of agricultural land. Another group argued for periodic haying and/or grazing of CRP land (e.g., every third or fourth year) to both improve the land's wildlife habitat and provide a feed base for

livestock producers. That issue was addressed in the 2002 Farm Bill (Farm Security and Rural Investment Act of 2002) with legislative language that allows for haying and grazing in a manner consistent with program objectives. The language also specifies that the rental payment be reduced by an amount commensurate with the economic value of the activity.

Finally, a number of leaders in each study area suggested ways to increase access to CRP land for recreational activities. These leaders felt that increased recreational activities (primarily hunting) offer their communities a means to offset some of the economic losses associated with land retirement. To address the recreational access issue, the North Dakota Game and Fish Department has recently initiated two companion programs. Both programs offer incentives to CRP landowners for allowing public access while one offers incentives for developing food plots (for game) and establishing woody cover.

Conclusion

Interviews with agricultural and community leaders in six rural areas of North Dakota revealed that the CRP was perceived to have both positive and negative effects. Agricultural and community leaders considered the program greatly beneficial to landowners, enabling them to obtain a guaranteed income that was often equal to or higher than prevailing cash rents from some of their least productive land. In addition, the environmental benefits of the program were widely recognized by the leaders. These included reduced soil erosion, improved water quality, and enhanced wildlife populations (especially deer and upland birds). Many leaders cited the positive economic benefits from increased recreational activities associated with enhanced wildlife populations. Negative feedback focused on the adverse impacts of cropland retirement on the farm supply and service sector, particularly in areas where CRP acreage was highly concentrated, and the role of the CRP in farm consolidation and rural depopulation.

While landowners' motivations for enrolling land in the CRP were primarily economic, the program appears to have successfully targeted more erodible, less productive farmland. Contract holders reported that the land enrolled in the CRP had lower yields than their other land or other land in the area, by an average of 5 percent. Environmental benefits such as reduced soil and water erosion were also widely recognized by contract holders. Participants also cited the program's positive effect on wildlife populations and subsequent benefits to relevant sectors of the local economy. Most contract holders believe that the CRP benefits both farmers and sportsmen.

The effects of the CRP on producers' decisions to continue farming or leave the industry appear mixed. Of the contract holders who had once farmed but were no longer doing so, 23 percent indicated that the CRP influenced their decision to quit farming. On the other hand, of the respondents who were currently farming, 31 percent indicated that the CRP had been instrumental in keeping them on the farm. The CRP appeared to be particularly attractive to older farmers transitioning to retirement. However, the fact that a large majority of contract holders live either in the county where their CRP tract was located or in an adjacent county does raise some questions about the validity of the local leaders' concern that many CRP participants left the area after enrolling their land in the program. Like local leaders, contract holders generally lamented the effect of the CRP on the agricultural supply and service sector.

Previous analyses of the local economic effects of the CRP have sometimes suggested mitigation measures—such as tax credits or low-interest loans for affected businesses and training programs or relocation assistance for displaced workers—to address the economic effects from reductions in agricultural production and input use. A more realistic scenario for many of the North Dakota communities in this study may be to develop businesses that can capitalize on the enhanced recreational opportunities and subsequent economic development opportunities provided by the CRP. RA

For Further Reading . . .

Sandra S. Batie, Mary B. Schulz, and David B. Schweikhardt, *A Continuation of Environmental Conservation Policy: The Conservation Reserve Program*, Staff Paper 97-16, East Lansing: Michigan State University, Department of Agricultural Economics, 1997.

Timothy L. Mortensen, F. Larry Leistritz, Jay A. Leitch, Randal C. Coon, and Brenda L. Ekstrom, "Socioeconomic Impact of the Conservation Reserve Program in North Dakota," S*ociety and Natural Resources*, Vol. 3, 1990, pp. 53-61.