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Local Socioeconomic Impacts of The Conservation Reserve Program

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ABSTRACT

The Conservation Reserve Program (CRP), first enacted in 1985, seeks to achieve both conservation and agricultural supply control objectives through voluntary, long-term (10 year contracts) retirement of cropland. By fall 2000, the program had enrolled about 31.4 million acres nationwide, and North Dakota ranked third among the states, with 3.2 million contracted acres, or 11 percent of the state's total cropland. Although long-term land retirement offers a variety of environmental benefits, as well as providing a stable income to participating landowners, large-scale land retirement can pose adverse economic impacts for nearby communities, primarily because agricultural supply and service sector businesses may be adversely affected. This study was undertaken to examine the local socioeconomic effects of the Conservation Reserve Program in rural areas of North Dakota.

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. The program was considered a substantial benefit to landowners, providing them with a guaranteed income from some of their least productive land. In addition, the environmental benefits of the program, including reduced soil erosion, improved water quality, and enhanced wildlife populations, were widely recognized. Negative effects cited by the leaders focused on the adverse impacts of cropland retirement on the farm supply and service sector and the role of the CRP in declining farm numbers and rural depopulation.

A survey of more than 1,000 CRP contract holders provided additional perspective regarding the program's effects. Leading reasons for enrolling land in the CRP were to reduce erosion/increase soil fertility (24%), reduce income risk (23%), CRP was economically attractive (22%), and provide a transition to retirement (11%). The contract holders also reported that the land they enrolled in the CRP had lower yields than other land in the area, by an average of 5 percent. Forty-two percent of the respondents had enrolled 150 acres or less and only 21 percent had enrolled more than 450 acres. Of the contract holders who had once farmed but were no longer farming, only 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.

When the leaders were asked for suggestions to improve the program, their responses reflected three major themes. One group felt that the CRP should focus on highly erodible land and that recent changes in enrollment criteria have allowed too much productive farmland to be enrolled. Another group of respondents argued for periodic haying of the CRP land (e.g., every third or fourth year), a measure they thought that would both improve the wildlife habitat value of the land and provide a feed base for livestock producers. Finally, a number of leaders in each study area suggested options to increase recreational access to CRP land. They believe that increased economic activity associated with recreational activities (primarily hunting) may offer their communities a means to offset some of the economic losses associated with land retirement.

Key Words: Conservation Reserve Program (CRP), cropland retirement, socioeconomic impacts, costs and benefits

HIGHLIGHTS

Long-term retirement of cropland has been used for nearly 50 years in the United States as a policy tool to achieve both agricultural supply control and conservation objectives. Cropland retirement has long been an integral part of U.S. farm policy and in 1985 the Conservation Reserve Program (CRP) was created. Designed to protect highly erodible lands, as well as augment supply control efforts, the 1996 Farm Bill (Federal Agricultural Improvement and Reform Act of 1996) revised the program's enrollment criteria placing more emphasis on environmental sensitivity. By fall 2000, the program had enrolled about 31.4 million acres nationwide, and North Dakota ranked third among the states, with 3.2 million contracted acres, or 11 percent of the state's total cropland. Although long-term land retirement offers a variety of environmental benefits, as well as providing a stable income to participating landowners, large-scale land retirement can pose adverse economic impacts for nearby communities, primarily because agricultural supply and service sector businesses may be adversely affected. At the same time, substantial growth in wildlife populations has led to more opportunities for recreational activity. This study was undertaken to examine the local socioeconomic effects of the Conservation Reserve Program in rural areas of North Dakota.

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. The program was considered a substantial benefit to landowners who were able to obtain a guaranteed income that was often equal to or greater than prevailing cash rents from some of their least productive land. In addition, the environmental benefits of the program were widely recognized. These included reduced soil erosion, improved water quality, and enhanced wildlife populations (especially deer and upland birds). Negative effects cited by the leaders focused on the adverse impacts of cropland retirement on the farm supply and service sector, particularly in areas where CRP acreage was highly concentrated, as well as the role of the CRP in declining farm numbers and rural depopulation.

A survey of more than 1,000 CRP contract holders provided additional insight into the program's effects. Leading reasons for enrolling land in the CRP were to reduce erosion/increase soil fertility (24%), reduce income risk (23%), CRP was economically attractive (22%), and provide a transition to retirement (11%). The average age of survey respondents was 61, with 41 percent over 65, which may explain why some saw the CRP as a retirement option. The contract holders also reported that the land they enrolled in the CRP had lower yields than their other land or other land in the area, by an average of 5 percent. Thus, the program appears to have been somewhat successful in targeting some of the region's more erodible, less productive farmland, and the CRP appears to be particularly attractive to older farmers and other landowners seeking income stability.

In each of the study areas, leaders had expressed concerns that farmers were using the CRP as a retirement program, enrolling most or all of their land and then often leaving the area. Results of the contract holder survey, however, indicate that these practices are not widespread. Of the contract holders surveyed, 42 percent had enrolled 150 acres or less, 67.5 percent had

enrolled less than 300 acres, and only 21 percent had enrolled more than 450 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 were only a small fraction of the land needed for an economically viable farming unit in the area.

The survey results also indicate that few of the contract holders have moved from the area where their land is located. Of the respondents, 61 percent lived in the same county as their CRP land, 16 percent in an adjacent county, 10 percent elsewhere in North Dakota, and only 13 percent outside the state. Moreover, of those who lived outside the area (i.e., elsewhere in the state or out of state), relatively few had moved recently; 73 percent had lived at their present location for 10 years or more and 51 percent for 20 years or more. Thus, CRP landowners who enrolled their land and then left the area must certainly have been a distinct minority.

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.

When the leaders were asked for suggestions to improve the program, their responses fell into three major themes. One group felt that the CRP 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 from the focus on environmental/wildlife values outweigh the loss of agricultural land. Another group of respondents argued for periodic haying of CRP land (e.g., every third or fourth year) as a measure that would both improve the wildlife habitat value of the land and provide a feed base for livestock producers. Finally, a number of leaders in each study area suggested options to expand public access to CRP land for recreation. They feel that economic activity related to recreational activities (primarily hunting) offer their communities a means to offset some of the economic losses associated with land retirement.

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

INTRODUCTION

Long-term retirement of cropland has been used for nearly 50 years in the United States as a policy tool to achieve both agricultural supply control and conservation objectives. The first major federal program for long-term land retirement, better known as the Soil Bank, was initiated in the mid-1950s. By the early 1980s, land in agricultural production had reached the highest level of the post-World War II period. The political consensus was to establish a program to take highly erodible land out of production, thereby reducing wind and water erosion, protecting long-term food producing capability, creating wildlife habitat, curbing excess production, and providing income support for farmers. To achieve these goals, the 1985 Food Security Act (U.S. Congress 1985) created the Conservation Reserve Program (CRP). Designed to protect highly erodible lands, as well as augment supply control efforts, the program was very popular, in part, because contract rental rates were often higher than market rental values or net revenues. By early 1989, the program had enrolled about 30.8 million acres nationwide, and North Dakota ranked second among the states, with 2.5 million contracted acres, or 8.9 percent of the state's total cropland (Mortensen et al. 1990). 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 (Batie and Schweikhardt 1994). To prioritize contract offers under the new criteria, an Environmental Benefits Index was developed. The program continued to grow and by 1994, about 36.4 million acres were enrolled nationwide, of which 2.9 million acres were in North Dakota, which still ranked second among states in acres enrolled (Bangsund et al. 1994).

The 1996 Farm Bill (U.S. Congress 1996) again revised the CRP enrollment criteria, placing even more emphasis on environmental sensitivity (Batie et al. 1997). All offers of whole farms or whole fields were to be evaluated using a redesigned Environmental Benefits Index. Further, acreage located in certain National Conservation Priority areas was given additional consideration in the enrollment process. One of these areas is the Prairie Pothole Region in the upper Great Plains. The 1996 CRP also included a continuous sign-up provision for acreage with high environmental values, including riparian buffers, grassed waterways, field windbreaks, and shallow water areas for wildlife. These special land use areas may be enrolled at any time and are not subject to competitive bidding, provided that the acreage and producer meet certain eligibility criteria. While the total county cropland acreage enrolled in the CRP is usually limited to 25 percent, this limitation is waived for continuous sign-up practices. CRP payment rates were also adjusted to more closely reflect local cash rental rates.

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Long-term land retirement programs have a special significance for North Dakota because a substantial portion of the state's cropland is economically marginal for crop production and subject to erosion. As a result, many North Dakota landowners have chosen to participate in voluntary land retirement programs. For example, in 1960, North Dakota landowners had 2.7 million acres, or about 10 percent of the state's total cropland, enrolled in the Soil Bank program (Taylor et al. 1961). In recent years, the state's participation in the Conservation Reserve Program has been even more extensive. In 1997, North Dakota farmers had 3.4 million acres enrolled in the CRP. Since then the state's CRP acreage has fluctuated between 3.1 and 3.3 million acres as some CRP contracts expire and other land is enrolled.

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 (Barr et al. 1962, Kaldor 1957, Paulson et al. 1961, Schmid 1958). Reductions in cropland acreage reduce demand for agriculture inputs such as fuel, fertilizer, chemicals, farm labor, and machinery. Further, volume reductions in crops marketed can have negative effects on farm supply and service sector businesses. This is of particular concern in small agricultural trade centers where elevators and farm supply businesses typically are among the community's major employers. In addition, a review of literature dealing with the effects of the Soil Bank program suggests that participation in these programs could be associated with increased off-farm employment by farm operators and could speed farm consolidation and rural-to-urban migration (Barr et al. 1962, Kaldor 1957, Taylor et al. 1961).
Provisions limiting enrollment to 25 percent of cropland in any county are intended to limit negative socioeconomic impacts on agriculturally dependent businesses.

In addition to potential negative effects from initial reductions in agricultural activities, the program has a number of positive aspects. One very noticeable benefit of the CRP in the Northern Great Plains region has been enhanced wildlife habitat, which has contributed to substantial growth in upland game bird and waterfowl populations. Rejuvenated wildlife populations have in turn led to increased resident and nonresident hunting and substantial increases in recreation-related expenditures in rural areas (Lewis et al. 1998). In addition to recreational benefits, the program has helped stabilize the revenue stream of participating landowners. During a period when the region's farmers and landowners have experienced adverse weather and market conditions, CRP income had a cushioning effect for both landowners and the region's rural communities.

OBJECTIVE

The purpose of this project is to assess the economic, demographic, and public service effects of the Conservation Reserve Program in North Dakota. Both the effects of cropland retirement and the effects of expanded recreational and related activities that may result from alterative uses of this land are examined.

METHODS/PROCEDURES

The first step in the research plan required identifying and selecting the study counties. Sixteen counties, grouped into six areas were selected (Figure 1). Each county was characterized by relatively high CRP participation (Table 1). The six multi-county areas selected represented a cross section of the various agricultural and natural resource characteristics found across the state.

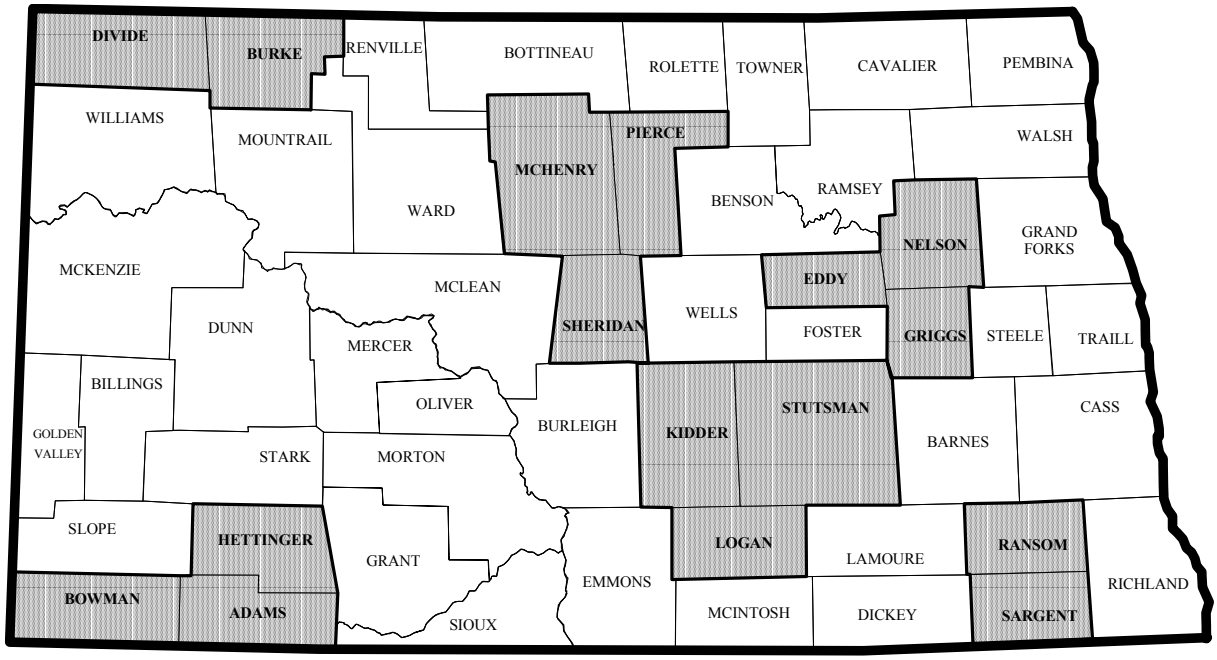

Figure 1. Study Counties

The project consisted of three distinct components: (1) personal interviews with community leaders, (2) a landowner/contract-holder survey (Appendix B), and (3) a community leader survey (Appendix C). Within each county, in-depth interviews were conducted with a cross-section of agricultural and community leaders. The interviews were an attempt 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 evaluations of those effects. Individuals were identified based on their roles as elected or appointed governmental officials (e.g., mayor, county commissioner, economic development director) and their roles in business, community, and educational organizations. Other community leaders were identified based on the recommendation of individuals interviewed. The individuals interviewed thus included both formal and informal leaders and business people.

Table 1. Acres Enrolled in the Conservation Reserve Program in Study Counties, North Dakota, 1996-2000

County	CRP Acreage						Percent of Cropland
	1996	1997	1998	1999	2000	Average	
Adams	84,130	93,903	79,618	72,004	73,571	80,645	21.5
Bowman	88,615	77,389	58,983	61,252	62,512	69,750	20.8
Burke	55,016	55,512	47,920	46,559	50,238	51,049	11.2
Divide	98,016	100,082	81,534	66,968	73,380	83,996	15.1
Eddy	58,149	74,575	70,407	72,939	73,787	69,971	27.1
Griggs	39,971	62,385	75,153	80,923	82,028	68,092	21.4
Hettinger	101,624	113,957	100,333	111,106	112,405	107,885	18.7
Kidder	108,210	114,883	104,993	109,910	111,636	109,926	26.4
Logan	58,514	75,486	67,294	59,853	61,179	64,465	22.5
McHenry	120,061	124,984	110,189	115,262	116,347	117,369	17.2
Nelson	60,786	108,030	112,924	124,661	126,472	106,575	24.2
Pierce	63,797	84,756	77,178	80,874	81,596	77,640	17.5
Ransom	49,324	72,215	72,350	76,691	82,009	70,518	19.6
Sargent	28,599	48,092	50,241	37,185	41,622	41,148	10.2
Sheridan	64,224	61,875	57,450	59,663	62,402	61,123	18.0
Stutsman	167,464	188,604	178,267	177,047	181,843	178,645	18.1
Total	1,246,500	1,456,728	1,344,834	1,352,897	1,393,027	1,358,797	18.8
North Dakota	2,910,923	3,355,695	3,138,229	3,169,095	3,313,292	3,177,447	14.2
Percent of state	42.8	43.4	42.9	42.7	42.0	42.8	—

Source: Farm Service Agency (1996 - 2000).

In addition to the interview, the leaders were also asked to fill out a written questionnaire similar to the landowner questionnaire. Sections of the questionnaire relevant to landowners only was removed from the leadership questionnaire. The leadership survey focused on (1) the effects of the CRP on area agriculture and agribusiness, (2) the CRP effects on recreation, (3) respondent's attitudes toward the CRP, and (4) respondent characteristics. Ninety-two individuals were identified for leadership interviews, and a questionnaire was made available to each one. Fifty-seven leaders completed and returned their questionnaire. Their responses are compared to landowner responses.

A list of CRP contract holders in the state of North Dakota was obtained from the Farm Service Agency of the U.S. Department of Agriculture. The survey instrument was mailed to a random sample of 3,150 contract holders in February of 2001. One follow-up mailing resulted in 1,018 usable questionnaires 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 and agribusiness and on the respondents' farming operation (if applicable), (3) CRP effects on recreation, (4) respondent's attitudes toward the CRP, and (5) respondent characteristics. Because most of the contract holders surveyed were also landowners, the term 'landowner' and 'contract holder' will be used interchangeably throughout this report.

The report will begin by summarizing the leadership interviews, followed by an examination of the landowner survey, and finally a discussion of the leadership survey. The discussion of the landowner and leadership surveys will generally follow the format of the survey instrument and comparisons between the two groups will be made when appropriate. Survey results were analyzed by examining the results overall and by multi-county study group. In some cases, the questions were analyzed by cross tabbing the results by various respondent characteristics such as residency, age, acres enrolled, etc. Statistical tests of significance were conducted using the Bonn Feroni test when appropriate (SAS Institute 1985).

RESULTS

Summary of Interviews with Agricultural and Community Leaders

Interviews with agricultural and community leaders were conducted in each of the study counties during the period February through July, 2001. A total of 92 individuals participated in the interviews. Leaders included managers of farm supply and service businesses (25 percent), officers of banks or other financial institutions (18 percent), County Extension agents and staff (15 percent), city and county government officials (14 percent), and farmers/ranchers (7 percent). The remaining interviewees included a variety of occupations, including managers of local businesses (not agriculturally-linked), editors of local newspapers, hunting outfitters/guides, and clergy. Their observations are summarized in the sections that follow.

Major Socioeconomic Changes Affecting the Community/Area

There were many similarities in the leaders' comments regarding major socioeconomic changes. Leaders in all study groups identified the long-term trend toward farm consolidation, declining rural populations, and depressed commodity markets as major issues affecting the community. The pattern of fewer and larger farms was prominent in each area (Table 2). Each of the study counties had declining farm numbers between 1987 and 1997 (U.S. Census Bureau 1980, 1989, U.S. Department of Agriculture 1999). The reduction in farm numbers during this period ranged from 24.5 percent (Logan County) to 2.6 percent (Ransom County). Each of these counties experienced declining farm numbers during the previous decade as well.

The pattern of farm consolidation has led to a substantially greater proportion of farmland being controlled by a relatively small number of large volume operators. These farmers often obtain volume discounts by purchasing inputs in large quantities. This means local dealers must be competitive. Some input supply managers also noted that the large volume operator typically finds labor to be a major constraint; however, a local dealer's ability to provide services (e.g., fertilizer and chemical applications) can give local supply operations a competitive edge.

In addition to large farm operations, some leaders felt that a second distinct group of farms was emerging: smaller, part-time units supported by at least some off-farm income (i.e., either the operator or spouse, or both, work off the farm). The counties studied varied substantially in the availability of off-farm employment opportunities. For example, in Ransom, Sargent, Stutsman, and Bowman Counties, the availability of off-farm work was cited as a factor that enabled some families to stay on their farms, curbing depopulation and stabilizing the local

population. On the other hand, in Burke, Hettinger, Logan, Nelson, and Sheridan Counties, the lack of off-farm employment opportunities was noted as a key factor contributing to out-migration population losses.

Table 2. Number of Farms in Study Counties, North Dakota, 1978, 1987, and 1997

County	Number of Farms 1978	1987	1997	Percentage Change 1987-1997
Adams	420	410	367	-10.5
Bowman	414	390	358	-8.2
Burke	650	525	479	-8.8
Divide	671	599	535	-10.7
Eddy	368	326	288	-11.7
Griggs	511	444	357	-19.6
Hettinger	548	525	436	-17.0
Kidder	594	557	513	-7.9
Logan	582	531	401	-24.5
McHenry	1,045	964	905	-6.1
Nelson	716	564	471	-16.5
Pierce	613	578	491	-15.1
Ransom	596	498	485	-2.6
Sargent	628	541	449	-17.0
Sheridan	530	470	380	-19.1
Stutsman	1,219	1,113	979	-12.0
Total, Study Counties	10,105	9,035	7,894	-12.6
Total, North Dakota	40,357	35,289	30,504	-13.6

Source: U.S. Census Bureau (1980, 1989), U.S. Department of Agriculture (1999).

Even in study areas with off-farm employment opportunities, farm consolidation was viewed as a major cause of out-migration and population decline. With few young people entering farming over the past 10 to 15 years, the overall population is aging. Fewer young families in these counties has led to declining numbers of school age children (Sell et al. 1996). For example, total (K-12) enrollment in the Divide County school district was about 800 in the mid-1970s but had declined to only 340 in the spring of 2001. In another county, a school administrator mentioned that a rural school bus route that had 24 children during the 1970s has only 3 today!

Population changes in the study counties have been summarized in Table 3. All 16 counties lost population during the 1990s, with reductions ranging from 0.5 percent in Ransom County to 25.3 percent in Burke County. These population changes represented a continuation of population declines experienced by each county during the 1980s. Generally, the counties with the smallest population losses during the 1990s (Ransom, Stutsman, and Sargent) were those with substantial growth in nonfarm job opportunities.

Table 3. Demographic Trends in Study Counties, North Dakota, 1980-2000

County	Population			Percentage Change	
	1980	1990	2000	1990-2000	1980-1990
Adams	3,584	3,174	2,593	-18.3	-27.7
Bowman	4,229	3,596	3,242	-9.8	-23.3
Burke	3,822	3,002	2,242	-25.3	-41.3
Divide	3,494	2,899	2,283	-21.3	-34.7
Eddy	3,554	2,951	2,757	-6.6	-22.4
Griggs	3,714	3,303	2,754	-16.6	-25.8
Hettinger	4,275	3,445	2,715	-21.2	-36.5
Kidder	3,833	3,332	2,753	-17.4	-28.2
Logan	3,493	2,847	2,308	-18.9	-33.9
McHenry	7,858	6,528	5,987	-8.3	-23.8
Nelson	5,233	4,410	3,715	-15.8	-29.1
Pierce	6,166	5,052	4,675	-7.5	-24.2
Ransom	6,698	5,921	5.890	-0.5	-12.1
Sargent	5,512	4,549	4,366	-4.0	-20.8
Sheridan	2,819	2,148	1,710	-20.4	-39.3
Stutsman	24,154	22,241	21,908	-1.5	-9.3
North Dakota	652,717	638,800	642,200	0.5	-2.1

Source: U.S. Census Bureau (1980, 1990, 2000).

Declining populations were generally acknowledged to exert negative pressure on businesses in small rural communities. In addition, the retail sector in these communities has been subject to growing competition from large volume stores in larger communities. In most counties, leaders mentioned recent business closures such as hardware and grocery stores. Another effect of the declining and aging population is that some communities are finding it more difficult to maintain some public services, for example, soliciting volunteers for services like rural fire departments.

Another concern voiced in all study areas was current market conditions for most commodities. Depressed prices for most major farm commodities, coupled with unfavorable weather in some areas, has made farmers more reliant on government programs and crop insurance. Leaders further stated the unfavorable economic situation has deterred many young people from starting a farming operation in recent years.

The abnormally wet weather cycle that has affected much of the state since 1993 was viewed as exacerbating farmers' problems, except in the two western study areas. The wet weather cycle has led to cropland losses from inundation and/or prevented planting and also has contributed to crop disease problems. Fusarium Head Blight, the most widespread disease, affects wheat and barley and can lead to major yield losses and price discounts (Nganje et al. 2001). As a result of depressed prices and disease problems in traditional crops, some producers have been experimenting with different crops (e.g., lentils and field peas in northwestern North

Dakota) or different farming practices (less summer fallow, more minimum tillage). In some cases, however, there are few alternatives to current crop rotations and farming practices.

The general pattern of farm consolidation coupled with price and weather conditions has impacted not only producers but also the local farm supply and service sector. In the past two decades, some communities lost all of their farm implement dealers and some local elevators have closed. Elevators on branch lines (especially branch lines that have been abandoned) have been the most vulnerable. As a result, the farm supply and service sector has been forced to reorganize.

Farm consolidation, depressed commodity prices, wet weather, and the CRP are forces that have affected the farm supply and marketing sectors. Farm consolidation is a major consideration, as large operators may bypass local input dealers and deliver grain directly to distant elevators (many own semi-trailer trucks). Depressed farm prices and incomes have led some producers to postpone machinery purchases and perhaps to economize on other inputs. Wet weather conditions in some areas have led to substantial acres being inundated or at least prevented from planting in certain years. Finally, the CRP has directly affected the demand for crop inputs (seed, fertilizer, chemicals, fuel, etc.) and reduced the volume of grain marketed in areas where substantial acreage has been enrolled in the program.

On a positive note, some leaders reported increased recreational activity, especially hunting, in their areas. In recent years, wildlife populations have rebounded, attracting both resident and nonresident sportsmen in pursuit of hunting opportunities. This was perceived to be very positive for certain local businesses, for example, motels, cafes, gas stations, and grocery stores. In some areas, guide services, outfitters, and bed and breakfast operations are a recent, but growing sector of the local economy.

Major Effects of the Conservation Reserve Program

The leaders were asked what they considered to be the major effects of the CRP in their area. Most identified both positive and negative effects. The positive aspects that were most frequently mentioned were (1) benefits for participating landowners, (2) environmental benefits, and (3) stable feed supply for stockmen. Negative aspects most often identified by leaders included (1) contraction of the farm supply and service sector, (2) CRP contributes to the decline of the farm population, and (3) CRP tracts pose noxious weed problems if not adequately managed.

Participating landowners were generally thought to have benefitted from the CRP. By agreeing to remove land from production, landowners receive a guaranteed income for 10 years. In many cases, producers enrolled marginal land and the CRP payments helped to stabilize income, contributing to farm viability. Many leaders reported that the stable income source was particularly attractive for older farmers as the CRP was in some cases used as a transition to retirement. Thus, the CRP helped some producers stay on the farm and enabled others to receive a guaranteed income from their land after retiring.

A second major benefit from the CRP has been its positive effects on wildlife populations and on the local environment in general. Improved wildlife habitat and thriving populations of upland birds and deer were cited as salient effects of the CRP. Leaders also credited the CRP with reducing wind erosion and contributing to improved water quality. However, some leaders, especially in the western part of the state, mentioned that changes in farming practices, particularly the shift from summer fallow toward minimum tillage, have also contributed to reductions in soil erosion. Some leaders also felt that the CRP had provided more nesting cover for waterfowl and had led to enhanced songbird populations.

Enhanced wildlife populations have in turn facilitated expanded recreational opportunities, particularly hunting. In the study areas in central and western North Dakota, the leaders mentioned that the influx of individuals from outside the area had been very positive for select local businesses, particularly motels, restaurants, and gas stations. Additionally, a few guide services and hunting lodges had sprung up, catering largely to out-of-state hunters. In the eastern areas, increased hunting also was reported, but the local economic effects were felt to be less pronounced. A likely explanation may be that many of the hunters in these areas were coming from Fargo, Grand Forks, and other nearby cities, largely on day trips.

A third major benefit of the CRP reported in all areas was its role in providing a reserve feed supply for area stockmen. Emergency haying and/or grazing of CRP land was seen to have been very helpful to livestock producers, possibly enabling some to retain their herds during periods of drought or flooding.

The negative effect of the CRP on farm input sales and on grain production and marketing was mentioned in every area and by a substantial majority of leaders. A direct and immediate effect of enrolling land into the CRP is the reduction in farm inputs (seed, fuel, fertilizer, chemicals, and crop insurance) and a smaller crop to market. This means volume reductions for farm supply businesses and elevators in the area. The effects of the CRP on the farm supply and service sector were sometimes exacerbated by the concentration of CRP acreage in certain localities (i.e., areas with high percentages of highly erodible land). While CRP enrollment has been limited to 25 percent of each county's cropland, participation in specific townships could reach 40 or 50 percent. Naturally, elevators and farm supply businesses servicing these areas experienced major impacts. The wet weather cycle also intensified the impacts of the CRP in some areas. A few input dealers estimated that between the CRP and inundation/prevented planting, they had lost close to 50 percent of the crop acreage in their service area.

Impacts on the farm supply and service sector appeared to be felt most severely in the smaller towns in each area. In many cases, there are few other businesses remaining, as most of the consumer-oriented retail activity has been lost to larger communities. As farm supply firms and elevators are typically among these communities' major employers, losses are especially apparent.

A second major negative effect of the CRP expressed by many leaders was the impact on the farm population. Many CRP participants were viewed as using the program as a retirement vehicle or as a tool to transition to other employment. In either case, the participants were often reported to have moved away from the local area, taking their CRP income with them. Concerns

about farmers' enrolling their land and leaving the area seemed to be expressed most frequently in counties where there were few nonfarm job opportunities and where the communities had little of the trade and service infrastructure needed to attract and retain retirees (e.g., medical services).

Less land available for young and new farmers was described as a secondary effect of the CRP on the area's farm population. Many leaders felt that the program has made it more difficult for young people to assemble enough land for an economically viable farming unit, or for an established operator to find land to augment an existing unit. As evidence of the problem, leaders cited the virtual absence of new farm operations in their area since the CRP was enacted. Further, many leaders felt that the CRP had inflated rental rates for area farmland (or at least put a floor under rental rates).

Noxious weeds were the third major problem identified by leaders in all areas. Some CRP tracts have substantial noxious weed infestations. Canada thistle and leafy spurge were mentioned most frequently, but absinth wormwood, knapweeds, and yellow starthistle were also identified as problems in some locales. Absentee CRP landowners were often criticized for being unaware of developing weed problems until complaints were registered with the County Weed Board, and in some cases, the absentee landowners had no means of dealing with the problem. Some leaders mentioned that the original CRP contracts required that a local farm operator be identified to be responsible for maintaining the CRP cover as needed. While CRP contracts do specify maintenance requirements, no such provision has ever been a contract requirement (Farm Service Agency 2001). Further, the noxious weed situation poses special problems on CRP land because most CRP cover mixtures include legumes. Herbicide treatments to control weeds would also kill the legumes in the mixture. The alternate treatment (clipping) serves only to prevent seed production in species like leafy spurge and Canada thistle. There appears to be no easy cost-effective control measure, and local landowners are concerned that infested CRP tracts will serve as a seedbed infesting adjacent land.

Other Effects of the CRP

Some other effects of the CRP were mentioned only in some of the study areas or by a few leaders. Several leaders mentioned that the CRP had provided a stable income base for their community. This was thought to have been especially helpful during periods of drought or other unfavorable farming conditions. Others said the supply control aspect of the CRP was positive. While commodity prices were quite low at the time the interviews were conducted, several leaders commented that the situation undoubtedly would have been even worse if all the CRP acres had also been in production.

While CRP was reported to have been beneficial for wildlife populations in all study groups, recreation and tourism have been especially enhanced in several of the study areas. In southwestern North Dakota, some landowners have found hunting access fees to constitute a supplemental income source. In some areas growing songbird populations have spurred an interest in birdwatching. Some outfitters and bed and breakfast operators who have developed a hunting clientele are now exploring birdwatching as a way to extend their season. Another less visible aspect of increased recreational activity is bird dog training. Several dog trainers from other states are reportedly bringing their dogs to North Dakota for summer field training. There

are also reports that hunters have been buying houses, either in small towns or on farmsteads, and sometimes whole farms, to use as a hunting base. The influx of hunters and the demand for hunting related services provides a significant, although seasonal, boost to local businesses, especially motels, restaurants, gas stations, and grocery and convenience stores. Further, the demand for hunting related services, particularly outfitters and fee hunting, is providing seasonal job opportunities in some areas with local residents working as guides, offering game dressing and packaging services, or providing lodging and accommodation services.

While hunting activity has helped some sectors of the local economy, some leaders reported that hunting activity is also associated with growing concerns over land access. Reports of more land posted "no hunting," land reserved for family and friends, and the growth in fee and lease hunting has raised complaints that it is more difficult for residents to gain access to land to hunt. While there may be other reasons in addition to increased hunting activity for posting, those reasons were not identified during the leadership interviews. Regardless of why more land has been posted, there are concerns that hunting opportunities for local people, particularly younger hunters, are on the decline.

A few leaders commented on the effects of the vegetative cover on extensive tracts of CRP land. On one hand, the CRP vegetation holds a great deal of snow, which reduces drifting on adjacent roads. On the other hand, large expanses of CRP land can increase fire danger at certain times of the year.

Some of the effects of the CRP elicited differences of opinion, sometimes strong differences, about the appropriate use of CRP acreage. The two most common areas for disagreement were hunting access and emergency haying/grazing. Some area residents felt that it is inappropriate for CRP landowners to charge for hunting access on land enrolled in the program. Because the federal government is renting the land, they believe it should be accessible by the public for recreational activities (like the National Grasslands or Waterfowl Production Areas). Other leaders and CRP landowners, on the other hand, point out that the standard CRP contract has no provisions regarding public access, thus landowners retain the right to regulate access.

Haying or grazing CRP acres during emergency situations (e.g., drought) also can be a source of conflict. While many local leaders identified this provision as a major benefit of the program and one that has helped some stockmen preserve their herds during difficult periods, others disagree. Some felt that allowing emergency haying or grazing leads to depressed hay prices, hurting individuals that raise and sell hay. Also, some livestock producers who do not have access to CRP land feel that those who do are enjoying an unfair advantage.

A final area of concern for study area leaders and their constituents related to the changes in program emphasis over time. Several leaders expressed concern that wildlife interests were given too much consideration in setting program priorities and enrollment criteria. These respondents generally believed that the CRP's initial focus on highly erodible land should have been maintained and that the new priorities with greater focus on environmental issues (water quality, wildlife, etc.) were allowing too much productive farmland to be enrolled and subsequently removed from crop production. As an example, these persons cited the case of destroying an established stand of smooth bromegrass or switchgrass in order to plant a different mixture that meets the CRP criteria. They questioned the sensibility of such a practice.

Leaders' Overall Evaluation of CRP

The leaders were asked whether they would rate the CRP as having an overall positive or negative effect on their community. Across the six study areas, about 34 percent of the respondents indicated that the overall effect was positive, while 43 percent believed the overall effect was negative. The remainder (23 percent) felt that the effects were quite 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 leaders who felt the effect of 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 general population decline. These leaders often stated that the program was enrolling too much productive farmland and that it bids up rental rates for land, making it difficult for new or young people to start a farming operation. They indicated that the shift in focus to include environmental benefits (e.g., water quality), rather than considering only highly erodible land for enrollment, was a mistake.

Leaders who view the CRP positively have a substantially different interpretation of the effects of the program. They believe that the changes in farm numbers and the local population would have occurred regardless of the program and that the CRP was simply part of the transition. These leaders often stated that the CRP helped many farmers as most of the land currently enrolled should never have been farmed in the first place. In effect, the CRP has helped make farming in their area more sustainable, both economically and environmentally. The CRP gave farmers a return on their less productive land and in some cases helped them keep their farm operations viable. For others, it provided a graceful way to retire or transition to another occupation.

Leaders that view the CRP positively are aware that few young people have entered farming over the past 15 years, but again their interpretation of the role of the CRP differs from that of their counterparts that view the program negatively. They feel that few young people have entered farming because of the unfavorable economic situation that has confronted North Dakota's agricultural sector over most of this period. They also are skeptical whether the land enrolled in the CRP in their areas, much of which is marginal, could legitimately have served as a base for viable farming operations. Finally, while they recognize that the CRP has played a role in pushing up rental rates, they feel that the major pressure on rents has come from established farmers in the area, not the CRP.

Finally, leaders who view the CRP positively almost universally cited the program's environmental and wildlife/recreational benefits. They also view hunting and other wildlife associated recreation as a basis for local economic growth.

Suggested Changes to Improve the CRP

The leaders were asked for suggestions on how to make the CRP a better program for their community. Their suggestions generally fell into the following categories: (1) measures to target marginal (erodible) land to avoid enrolling productive land, (2) steps to foster wildlife and

recreational benefits and to increase recreational access, (3) recommendations regarding haying CRP acres, (4) improved weed control, and (5) changes in enrollment procedures.

Targeting erodible land for enrollment in the program was a suggestion advanced by leaders in each of the study areas. Many felt that the major problems with the program at present stem from its departure from its initial focus on fragile lands. A related recommendation was to ensure that CRP contract rates do not exceed local cash rents (although it was generally conceded that current rates are more in line with local cash rents than was the case with the initial contracts). A variation of this recommendation was to require that CRP contract rates not exceed 80 percent of the average local cash rental rate; this would ensure that only marginal land would be enrolled. A final suggestion along this line was to eliminate whole farm bids. Some leaders even suggested that only a specified percentage (small) of any farm be enrolled.

Many leaders were concerned about the lack of public access to CRP land for recreation. Their suggestions ranged from offering an additional payment to landowners that would agree to allow public access [similar to the Public Land Open To Sportsmen (PLOTS) program currently offered by the North Dakota Game and Fish Department], to requiring that public access be allowed on a certain percentage (e.g., 50 percent) of each contract, or even modifying the standard CRP contract to require public access to all land enrolled in the program.

Enhancing the wildlife habitat value of CRP land was another concern of the respondents. Several suggested that incentives (which could take the form of added payments or additional points on the Environmental Benefits Index) be offered to landowners to incorporate tree plantings and/or food plots into their CRP tracts. [During the course of the interviews, the North Dakota Game and Fish Department announced a new program available in selected areas of the state, which incorporates permanent cover, food plots, and public access. Called CoverLocks, the program also features longer term contracts and a substantial up-front payment for the landowner (Bihrle 2001)].

Another frequent recommendation was to allow haying on some regular interval; some suggested every third, fourth, or fifth year. This was seen as a compromise that would allow the land to support a limited amount of agricultural activity while still achieving most of the environmental and wildlife benefits associated with CRP. Others felt that periodic haying (or grazing) would invigorate the stand of grasses and legumes and would actually improve the land's wildlife habitat value. A related recommendation was that, when emergency haying is allowed, it should be initiated earlier in the year when forage quality would be higher. Other leaders supported occasional haying as a tool to help control fire hazards.

Weed control issues were raised in every study area. CRP contracts include a $5 per acre annual payment to cover the costs of maintaining cover, but some leaders reported that some landowners seem to regard this merely as an addition to their rental payment. Some leaders suggested putting the $5 per acre payment into escrow, to be drawn upon for weed control. Others suggested removing the legumes from the CRP cover mixture, thus expanding the number of potential weed control options.

The final set of suggestions involved various changes in enrollment procedures. Some felt it should be easier to re-enroll land in the CRP and that land already enrolled in the program

should automatically qualify for re-enrollment. Another suggestion was that all landowners should be entitled to enroll a portion of their land into the CRP. The rationale was that some operators had already converted their poor (erodible, alkaline, etc.) cropland to permanent cover (pasture or hay) prior to the advent of the CRP, thus effectively preventing them from participating in the program. Those landowners still cropping unsuitable land when the CRP was initiated reaped the benefits of the program, while the responsible operator was in effect penalized for responsible land management. Finally, some suggested there should be a CRP contract that would permanently retire especially fragile cropland from crop production. The contention was that some fragile land should never be cropped; however, much of this land may again be used for crop production if the program ends and/or current contracts cannot be renewed.

And finally, some leaders would like to see the number of acres of land enrolled in the CRP in their area reduced. One suggestion was to impose a 25 percent cap on the percentage of cropland enrolled at the township level. While the current program caps enrollment at the county level, in some cases, land enrolled in the CRP can be concentrated in localized areas of the county. Very few leaders suggested the program be eliminated.

Summary of Landowner Survey

Demographic Characteristics

Respondent age was consistent with recent population trends reporting an aging rural population (ND State Census Data Center 2001). Average age of respondents was 61 years old with 76 percent of the respondents over the age of 50. Only 3 percent of the respondents were 35 years old or younger. Results were similar in all county groups; however, respondents in Ransom and Sargent Counties were slightly younger on average, with 5 percent of the respondents age 35 or younger. Respondents in Kidder, Logan, and Stutsman Counties were slightly older with 79 percent of respondents over 50 years old and only 1.5 percent under age 35 (Table 4).

Respondents were long-time residents, further demonstrating that the rural population is aging. Average residency was 43 years with only 11 percent living in the county for less than 10 years and 66 percent living in the county for over 30 years (Table 5). Farming and ranching was the dominant occupation (59 percent); 40 percent of the respondents were self-employed, 37 percent retired, and only 21 percent employed by someone else (Appendix Table 1).

Fifty-three percent had completed at least one year of college (Table 4). Most of the respondents were North Dakota residents (87 percent), and 61 percent lived in the survey county. Twenty-five percent of respondents lived either in an adjacent county or elsewhere in North Dakota. Only 13 percent lived out of state (Table 5).

Table 4. Age, Education, and Income of Respondents, Landowners

Characteristic	Overall	Multi-county Groups: Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	% of respondents						
Education							
No high school	12.2	10.5	16.7	4.0	18.0	18.3	8.6
High school*	34.3	36.4	34.2	34.7	35.6	28.2	35.7
College*	40.7	36.3	37.5	45.5	34.5	41.6	47.1
Graduate school*	12.8	16.8	11.6	15.8	11.9	11.9	8.6
Household Income ($)							
0 to 10,000	9.3	9.5	13.6	8.6	7.1	12.3	6.3
10,001 to 25,000	23.3	21.4	30.0	21.1	25.0	27.7	16.7
25,001 to 50,000	39.5	40.5	40.0	41.1	38.7	24.6	50.7
50,001 to 100,000	21.9	19.1	14.6	23.2	21.4	29.2	22.2
100,001 to 150,000	3.1	5.5	0.0	3.8	3.0	3.9	2.1
Over 150,000	2.9	4.0	1.8	2.2	4.8	2.3	2.0
Age (years)							
21 to 35	2.9	4.3	3.3	1.5	1.5	2.9	4.6
36 to 50	20.9	19.9	18.2	23.0	19.8	20.3	22.9
51 to 65	35.3	27.7	31.4	41.0	32.5	39.9	37.1
Over 65	40.9	48.1	47.1	34.5	46.2	36.9	35.4
Average Age	61.3	62.2	63.5	60.1	62.5	60.6	59.7

*Respondents completed at least one year.

Table 5. Residency by Years in County and Location of Residence, Landowners

Category	Overall	Multi-county Groups: Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
- years in county-	% of respondents						
1 to 5	4.9	8.1	5.0	4.6	3.8	8.0	1.1
6 to 10	6.5	4.4	8.4	6.7	7.6	7.3	4.6
11 to 20	9.5	8.1	11.8	8.8	9.7	10.2	9.3
21 to 30	12.9	11.8	13.5	15.0	7.5	17.5	13.3
over 30	66.2	67.6	61.3	64.9	71.4	57.0	71.7
(n) (944)							
Average years in county	43.0	42.5	42.1	42.8	45.4	37.6	45.8
--residence--	% of respondents						
Study County	61.4	57.9	56.5	63.3	63.6	54.0	68.7
Adjacent County	16.0	9.0	23.0	12.9	15.9	20.9	17.1
Elsewhere in ND	9.7	20.0	8.2	10.9	18.2	9.3	2.8
Out-of-State	12.9	13.1	12.3	12.9	12.3	15.8	11.4
(n) (979)							

Conservation Reserve Program Acreage

Average enrollment in the CRP was summarized by study group and by residence of respondent (Table 6). Average CRP enrollment in North Dakota was 283 acres. Respondents in Adams, Bowman, and Hettinger Counties had the highest average enrollment with 363 acres; respondents in Ransom and Sargent had the lowest average enrollment with 229 acres. Only 14 percent of respondents indicated they held CRP contracts on land they did not own. Nonresident landowners enrolled fewer acres on average than residents (235 acres); however, most respondents (67 percent), both resident and nonresidents, had enrolled relatively small quantities of land (less than 300 acres). Overall, 42 percent of respondents enrolled less than 151 acres with only 21 percent enrolling more than 450 acres. Out-of-state landowners were more likely to have less land enrolled, as 55 percent of out of state respondents had enrolled 150 acres or less.

Table 6. Land Enrolled in the Conservation Reserve Program, Landowners

Land Enrolled	Overall	Multi-county Groups: Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
-- acres --	% of respondents						
1 to 150	42.4	34.3	46.1	42.9	38.5	44.0	48.8
151 to 300	25.1	26.3	23.1	26.7	22.5	25.5	26.2
301 to 450	11.8	11.7	9.4	13.6	15.0	9.2	10.1
over 450	20.7	27.7	21.4	16.8	24.0	21.3	14.9
Average Acreage per Respondent	283.2	362.6	270.4	262.5	308.0	274.9	229.3

	Acreage By Location of Respondent: Study County	Adjacent County	Elsewhere in ND	Out of State
-- acres --	% of respondents			
1 to 150	40.6	37.7	50.0	55.3
151 to 300	26.0	28.1	17.4	18.4
301 to 450	11.2	13.7	12.0	11.4
over 450	22.2	20.5	20.6	14.9
Average Acreage per Respondent	289.6	291.4	294.2	235.6

While eligibility for the CRP is based on an Environmental Benefits Index that weighs a number of environmental criteria such as erodibility and water quality benefits (U.S. Congress 1996), landowners indicated there was a wide range of factors that motived them to enroll land in the program. No single reason for enrolling land in the CRP was predominant; however, the most frequent response was financial in nature (Table 7). Forty-six percent of the respondents said that the main reason for enrolling land in the CRP was because it was 'economically attractive' or 'to stabilize income and reduce risk.' Soil quality issues, specifically 'to improve soil fertility' and 'reduce soil erosion,' were cited as the main reason for enrolling land in the program by 24 percent of the respondents. Respondents clearly indicated that 'increased hunting opportunities' was not a strong motivating factor, as only 2 percent of the respondents said that was the main reason for enrolling land in the CRP.

When reasons for enrolling were compared by county groups, 59 percent of the respondents in Eddy, Griggs, and Nelson Counties indicated that their main reason for enrolling land was the economic considerations of 'economically attractive' or 'to stabilize income.' Those same economic reasons were less important to respondents in Adams, Bowman, and Hettinger Counties (37 percent); however, soil issues were more important (33 percent) than in the other study counties. Soil issues were also more important in McHenry, Pierce, and Sheridan Counties (32 percent) and less important in Eddy, Griggs, and Nelson Counties (17 percent). Responses are detailed in Table 7.

Table 7. Reasons for Enrolling in the Conservation Reserve Program, Landowners

Reasons for Enrolling	Overall	Multi-county Groups: Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	% of respondents						
Economically attractive (n=214)	22.2	17.8	18.5	28.3	19.3	21.0	25.3
Improve soil fertility and reduce soil erosion (n=235)	24.3	33.3	30.2	16.7	19.8	32.2	20.7
Stabilize income and reduce income risk (n=227)	23.5	19.2	22.7	30.8	21.8	22.4	21.8
Increase hunting opportunities (n=21)	2.2	3.7	2.5	0.5	5.1	0.7	0.6
Reduce labor and other farm inputs (n=47)	4.9	6.7	5.9	2.5	4.6	6.3	4.6
Provide transition to retirement (n=104)	10.8	9.6	10.9	8.1	15.2	5.5	13.8
Provide transition to a career change (n=20)	2.0	1.5	3.4	1.5	2.0	2.8	1.7
Other reasons (n=98)	10.1[a]	8.2[b]	5.9[c]	11.6[d]	12.2[e]	9.1[f]	11.5[g]

[a] Most frequent other reasons included land too wet to farm and prone to flooding (2.2%), purchased land with CRP established (1.3%), problem finding/dealing with renters (1.2%), inherited land with CRP established (0.9%), remove unproductive land from crop production (0.7%), poor agricultural economy (0.6%), and health reasons/death in family (0.6%).

[b] Most frequent reasons included inherited land with CRP established (1.5%), health reasons/death in family (1.5%), and remove unproductive land from crop production (0.7%).

[c] Most frequent reason included inherited land with CRP established (1.7%).

[d] Most frequent reasons included land purchased with CRP established (2.5%), land too wet to farm and prone to flooding (2.5%), problem finding/dealing with renters (1.5%), poor agricultural economy (1.0%), and remove unproductive land from crop production (1.0%).

[e] Most frequent reasons included problem finding/dealing with renters (2.5%), land purchased with CRP established (2.0%), land too wet to farm and prone to flooding (2.0%), and poor agricultural economy (2.0%).

[f] Most frequent reasons included land purchased with CRP established (2.1%), land too wet to farm and prone to flooding (2.5%), problem finding/dealing with renters (1.5%), inherited land with CRP established (2.1%), and remove unproductive land from crop production (1.4%).

[g] Most frequent reasons included land too wet to farm and prone to flooding (5.7%), assistance to plant trees to stop erosion (1.1%), and financial pressure to stay out of debt (1.1%).

When examining the reasons for enrolling land in the CRP by acres of land enrolled in North Dakota, age, residency, and occupation, there appeared to be some differences in respondent rationale. Because of missing data, it was not possible to infer statistical differences; however, there were a few noteworthy observations.

As would be expected, of those that indicated the main reason for enrolling land in the CRP was 'retirement' or 'career changes,' 64 percent were over 65 years old and 88 percent were 51 years old or older. The same relationship exists with respondents that indicated the main reason for enrolling land was to 'reduce labor'; 87 percent were 51 years old or older.

Size of the enrollment also seems to have some bearing on rationale for enrollment. 'Soil issues' were relatively more important for landowners enrolling less than 150 acres (58 percent). Further, of those respondents that indicated the reason for enrolling land in CRP was to increase hunting opportunities, 82 percent indicated their occupation was not 'farming/ranching,' and 75 percent enrolled less than 150 acres. Reasons for enrolling land in the CRP by age, acres enrolled, residency, and occupation are detailed in Appendix Table 2.

Agriculture Issues

Cropping History

Spring wheat was the most commonly cultivated crop on land now enrolled in the CRP in all groups except Burke and Divide Counties where respondents raised more durum. In all groups, except Ransom and Sargent Counties where row crops such as corn, soybeans, and sunflowers were more prevalent, over 50 percent of land currently enrolled in the CRP was previously used to grow spring wheat and durum (Appendix Table 3). Overall, respondents indicated that land now enrolled in the CRP yielded on average 5.3 percent less than cropland in the area not enrolled in the CRP (Table 8). While the average yield difference is not large, the vast majority of acres were reported to have the same (93,558 acres) or lower (92,941 acres) yields with far fewer acres reporting higher yields (23,121 acres). This would infer that the acres enrolled with higher yields were substantially higher than those acres enrolled with lower yields. If the acres enrolled with higher yields were only slightly higher, the overall average yield difference would likely be much lower because of the number of acres that indicated lower yields. Input costs on average were the same for land enrolled in the CRP and other land in the area not enrolled in the program. The overall average cost difference was less than 1 percent (-0.2 percent). Most acres (137,700) were reported to have the same input costs with approximately the same numbers of acres reporting higher (29,300) and lower (34,500) input costs. The overwhelming number of acres enrolled with the same costs skews the average cost difference to nearly zero. The trends were similar among county groups. Differences between past yields and input costs varied only slightly among county groups. The largest difference was observed in Adams, Bowman, and Hettinger Counties where yields averaged 7 percent less and input costs averaged 1 percent higher than for land not enrolled in the CRP (Table 8). Perhaps the most meaningful observation would be that for a vast majority of contract holders, input costs were largely the same with yields the same or lower than other cropland in the area.

Table 8. Prior Yield and Input Costs on Land Currently Enrolled in the Conservation Reserve Program Compared to Other Cropland in the Area, Landowners

		Multi-county Groups					
Yields/Costs	Overall	Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	---------- acreage of land enrolled ----------						
Responses indicating							
Higher yields	23,121	2,260	3,591	5,462	7,177	3,526	1,105
Same yields	93,558	16,116	10,958	17,038	22,760	11,200	15,486
Lower yields	92,941	21,125	13,700	16,269	13,191	15,791	12,865
Avg yield difference[a]	-5.3%	-7.2%	-7.1%	-3.4%	-1.7%	-7.7%	-6.2%
Responses indicating							
Higher input costs	29,321	4,384	3,568	5,775	8,290	5,397	1,907
Same input costs	137,722	29,877	17,742	23,215	27,650	18,633	20,605
Lower input costs	34,507	2,418	5,200	9,695	5,348	5,799	6,046
Avg cost difference[b]	-0.2%	1.4%	-1.0%	-1.4%	1.5%	0.4%	-2.8%

[a] Represents past yields on land enrolled in CRP as a percentage of past yields on non-CRP lands. Calculated by weighting yield percentages by respondent's enrolled acreage.

[b] Represents past crop expenses on land enrolled in CRP as a percentage of past crop expenses on non-CRP lands. Calculated by weighting expense percentages by respondent's enrolled acreage.

Effects on Farming Operation

As was reported by leaders during the leadership interviews, the CRP was widely believed to be a major factor driving farm consolidation and rural depopulation. Another widely held belief was that the CRP enabled many operators to continue farming. The role of the CRP in farm viability is examined in this section of the survey.

Fifty percent of the respondents indicated their occupation was farmer/rancher; however, when asked if farming was *ever* the respondents' primary occupation, 66 percent indicated 'yes.' Only 22 percent of the respondents were currently farming full-time. The percentage of full- and part-time farmers was very similar across all study groups with just slightly more full-time farmers than part-time. Most respondents are long-time farmers; 52 percent have been farming for at least 30 years while only 4 percent have been farming for less than 10 years. Respondents farmed on average 1,778 acres with average ownership rates at 66 percent. Average acres farmed were highest in Adams, Bowman, and Hettinger Counties (2,517 acres) and lowest in Kidder, Logan, and Stutsman Counties (1,607 acres). Responses by county group varied considerably when respondents were asked if the CRP affected their decision to quit farming. In Adams, Bowman, and Hettinger Counties, of those respondents not currently farming, only 8 percent said CRP impacted their decision to quit farming, while 31 percent of respondents in McHenry, Peirce, and Sheridan and Burke and Divide Counties said the CRP impacted their decision to quit farming. Overall, 23 percent of respondents said the CRP affected their decision to quit farming. Farm and respondent characteristics are detailed in Table 9.

Table 9. Farm and Respondent Characteristics, Landowners

Respondent Characteristics	Overall	Multi-county Groups: Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	% of respondents						
Ever considered farming to be their primary occupation							
No	34.3	36.3	29.8	37.7	39.7	29.5	29.9
Yes	65.7	63.7	70.2	62.3	60.3	70.5	70.1
Respondents currently farming							
No	50.2	44.9	46.5	54.6	58.4	42.6	49.3
Yes (part-time)	27.7	29.6	29.3	27.0	22.1	31.3	28.9
Yes (full-time)	22.1	25.5	24.2	18.4	19.5	26.1	21.8
Length of time farming (years)[a]							
10 or less	3.9	5.8	3.9	4.5	3.5	1.6	4.2
11 to 20	12.7	15.4	9.6	13.4	8.6	11.5	16.6
21 to 30	31.5	19.2	26.9	38.8	36.2	41.0	25.0
31 to 40	19.3	9.6	19.2	23.9	17.2	14.8	27.8
41 to 50	17.7	26.9	13.5	11.9	19.0	22.9	13.9
over 50	14.9	23.1	26.9	7.5	15.5	8.2	12.5
Of those not currently farming, did CRP influence decision to quit							
No	77.1	92.1	68.6	80.3	72.6	69.0	79.7
Yes	22.9	7.9	31.4	19.7	27.4	31.0	20.3
Size of farm (acres)[a]							
1 to 750	25.4	18.4	27.5	24.6	23.7	29.5	27.1
751 to 1,500	28.7	14.3	27.4	33.9	32.2	27.9	32.9
1,501 to 2,500	23.1	28.5	19.6	24.6	25.4	21.3	20.0
over 2,500	22.8	38.8	25.5	16.9	18.7	21.3	20.0
Avg size (acres)	1,778	2,517	1,807	1,655	1,607	1,642	1,619
Owned land in farm (%)	65.6	63.1	64.3	63.3	63.8	73.7	65.1

[a] Only those that are currently farming.

When asked to rate how important certain CRP benefits have been in maintaining farm viability, responses were balanced, with some consensus on several benefits. Fifty-nine percent of the respondents felt that 'removing marginal/uneconomical cropland from production' and 'providing a more stable income source' were 'very important' or 'somewhat important' to the viability of their farm. The greatest level of agreement, however, was regarding supplementing income with hunting revenue. Ninety-two percent said that 'supplementing income with hunting revenue' was unimportant. Respondents were fairly evenly split regarding the relative importance of other CRP benefits. About thirty percent indicated that 'help pay short- and long-term debts,' 'provide income for family living expenses,' and 'offset income loss on other cropland' were important. Twenty-five percent responded 'neither' and 40 percent indicated those benefits were unimportant (Table 10).

Table 10. Importance of Various Aspects of the Conservation Reserve Program in Keeping Farm Operations Viable, Landowners

		Degree of Importance				
CRP Benefit	Average Score[a]	Very Important	Somewhat Important	Neither	Somewhat Unimportant	Not Important
		% of respondents				
Help pay short-term debt (n=330)	3.2	17.0	14.6	26.7	16.9	24.8
Help pay long-term debt (n=331)	3.1	20.9	16.0	23.3	14.2	25.6
Provide income for family living expenses (n=332)	3.2	15.1	16.6	27.1	16.5	24.7
Offset income loss from other cropland (n=334)	3.2	13.2	20.4	24.8	15.0	26.6
Remove marginal crop land from production (n=342)	2.4	35.1	24.3	18.7	13.1	8.8
Supplement income with hunting revenue (n=324)	4.7	3.4	0.9	3.4	9.9	82.4
Provide more stable income than crop production (n=324)	2.4	31.8	27.7	20.0	7.9	12.6

[a] Based on a scale of 1 for very important to 5 for not important. Lower average numbers indicate a greater importance than higher average numbers.

Importance of specific CRP benefits in farm operation viability varied little among the study areas. Significant differences in responses were found between the study groups on only two issues. With an average score 1.9 (based on score of 1 for very important and 5 for not important), 53 percent of the respondents in Adams, Bowman, and Hettinger Counties said that taking marginal/uneconomical cropland out of production was very important in keeping their farm operation viable, while only 24 percent of the respondents in Burke and Divide Counties (average score 2.7) and 26 percent of the respondents in Kidder, Logan, and Stutsman Counties (average score 2.7) said removing marginal/uneconomical cropland from production was very important. The other significant difference among county groups was related to the importance of income from hunting revenue. While very few respondents (5 percent) indicated that income from hunting revenue was important to maintaining their farming operation, respondents in Adams, Bowman, and Hettinger Counties (average score 4.4) responded less negatively than the other county groups and significantly different than respondents in Sargent and Ransom Counties (average score 4.9). Responses by county group are detailed in Appendix Tables 4 through 9.

When responses were compared by the number of acres enrolled in the CRP in North Dakota, respondents with less than 150 acres enrolled responded significantly different than other respondents on several issues. 'Paying short-term debt,' 'paying long-term debt,' and 'providing a more stable income source,' were relatively unimportant to respondents with less than 150 acres enrolled and significantly different than respondents with more acres enrolled. Respondents with less than 150 acres enrolled also responded differently than respondents with more than 450 acres enrolled on the issue of 'provide income for family living expense.' With an average score of 3.5, the issue was relatively unimportant to contract holders with less than 150 acres and relatively important to contract holders with more than 450 acres. The difference was significant. There were no differences between the groups on the remaining issues (Table 11).

Respondents were also asked how the CRP has affected their farming operation. A majority of respondents indicated that the CRP has not affected the level of basic farm inputs, specifically the amount of labor (hired or family) or machinery. Further, most farmers have not substantially changed management practices since enrolling their land in the CRP (Table 12). The adoption of minimum till practices and retention of grass/sod in drainage areas were the only practices adopted by a majority of the respondents since enrolling land in the CRP. Some respondents have taken measures to further support wildlife populations; however, those practices do not appear to be widespread. Twenty-one percent and 32 percent, respectively, indicated they had 'planted food plots near CRP tracts' and 'planted trees and other habitat with their own resources' while 45 percent said they 'feed wildlife during the winter.' Cropping and tillage practices were not influenced either as a result of landowners enrolling land in the CRP. Eighty-three percent of the respondents indicated they have not changed cropping practices to ensure that crops sensitive to wildlife depredation are not planted near CRP tracts. Only 26 percent have adopted no-till practices since enrolling land in the CRP and 16 percent have changed tillage practices on land near CRP tracts to allow feeding/foraging by wildlife (Table 12). Most farm strategic and planning issues have not been influenced by the CRP. Most respondents indicated that the CRP did not affect issues such as 'transferring the farm to the next generation,' 'making land easier to sell' or 'help to expand farm operation'; although 40 percent of the respondents indicated the CRP 'helped the transition to retirement.' On only one issue, 'reduced my income risk,' did a majority (72 percent) of the respondents respond positively.

Responses varied little among the county groups regarding the program's influence on farm operations, although more respondents (51 percent) in Kidder, Logan, and Stutsman Counties indicated the CRP helped the 'transition to retirement' than the overall average and fewer respondents in Burke and Divide (28 percent) said the CRP 'helped the transition to retirement' than the average. Responses by county group are detailed in Appendix Tables 10 through 15.

Table 11. Importance of Various Aspects of the Conservation Reserve Program in Keeping Farm Operations Viable by Number of Acres Enrolled in the Conservation Reserve Program, Landowners

	Acres Enrolled			
CRP Benefit	1 - 150	151 - 300	301 - 450	450+
	average score [1]			
Help pay short-term debt	3.59[a]	3.00[b]	2.97[b]	2.86[b]
n	(123)	(79)	(37)	(71)
Help pay long-term debt	3.64[a]	2.87[b]	2.62[b]	2.61[b]
n	(121)	(79)	(37)	(73)
Provide income for family living expenses	3.54[a]	3.04[a,b]	2.95[a,b]	2.90[b]
n	(123)	(78)	(38)	(73)
Offset income loss from other cropland	3.58[a]	2.97[a]	3.21[a]	3.00[a]
n	(123)	(80)	(38)	(72)
Remove marginal crop land from production	2.26[a]	2.41[a]	2.51[a]	2.49[a]
n	(129)	(80)	(37)	(72)
Supplement income with hunting revenue	4.73[a]	4.57[a]	4.81[a]	4.79[a]
n	(78)	(121)	(37)	(68)
Provide more stable income than crop production	2.86[a]	2.20[b]	2.13[b]	2.03[b]
n	(125)	(81)	(37)	(72)

[1] Based on a scale of 1 for very important to 5 for not important. Lower average numbers indicate a greater importance than higher average numbers.
[a] Variables with the same letter are not significantly different,$\propto$=.05.
[b] Variables with the same letter are not significantly different,$\propto$=.05.

Table 12. Influence of the Conservation Reserve Program on Farm Operations, Landowners

Farm Activities	Increase	No Effect	Decrease
	---------- % of respondents ----------		
Level of Farm Inputs			
Change the amount of hired labor	0.8	76.4	22.8
Change the amount of family or operator labor	1.4	57.6	41.0
Change the amount of machinery/equipment	2.0	65.0	33.0
Conservation and Wildlife Practices Adopted Since Enrolling in CRP		Yes	No
Crops sensitive to wildlife depredation not planted/stored near CRP tracts		17.0	83.0
Retain grass in drainage areas prone to erosion		55.2	44.8
Use no-till practices		26.0	74.0
Use minimum tillage practices		58.7	41.3
Plant food plots next to CRP tracts		21.3	78.7
Feed wildlife during winter		45.2	53.8
Delay first cutting of hay until after nesting		35.1	64.9
Delay/cancel tillage on fields next to CRP to allow for feeding by wildlife		15.5	84.5
Plant trees/create other habitat with own resources		32.0	68.0
Strategic and Planning Issues			
Help transfer farm operation to the next generation		34.7	65.3
Help the transition to retirement		39.8	60.2
Reduced my income risk		71.7	28.3
Made land easier to sell/increased value of land		21.7	78.3
Help to expand farm operation		17.8	82.2

Other Related Agriculture Issues

Respondents were asked to compare CRP payments to average cash rents for comparable land in the county. No clear consensus emerged. Fifty-four percent of the respondents said that cash rents and their average CRP payment were nearly the same; 28 percent indicated cash rents were higher than their CRP payments, and 18 percent said cash rents were lower than their average CRP payments. When all responses were averaged (including those that responded 'no difference'), respondents felt that cash rents were $1.02 per acre more than their average CRP payment. The average is somewhat misleading as it conceals the wide range of responses. Those that thought cash rents were higher said cash rent averaged $9.11 per acre higher than their average CRP payment; those that thought cash rents were lower said rents averaged $8.82 per acre lower, a range of nearly $18 per acre (Table 13).

Perceptions regarding cash rent varied among county groups as well. Respondents in Ransom and Sargent Counties felt overall cash rents averaged 33 cents per acre less than CRP payments, yet respondents in McHenry, Pierce, and Sheridan Counties felt that cash rents averaged $2.93 per acre higher than CRP payments. The greatest disparity between cash rents and CRP payments was in Ransom and Sargent Counties. Respondents that thought cash rents were higher than CRP payments said cash rents averaged $12.55 per acre higher and those that thought CRP payments were lower than cash rents said cash rents averaged $11.39 per acre lower, a range of nearly $24 per acre (Table 13).

Respondents were also asked if the CRP had affected the availability of cropland for rent, as well as if the CRP had affected cash rents for cropland in the area. Forty-two percent of respondents felt that the CRP had reduced the amount of land available for rent; however, respondents apparently did not believe the reduction in land available for rent had impacted cash rents. Only 33 percent of the respondents felt that the CRP had effectively increased cash rents, while 69 percent said the CRP has had no effect on cash rents. When the dollars per acre change in cash rents was averaged, respondents felt that cash rents for cropland had increased 4.4 percent as a result of the CRP. Again, that average does not articulate the range of responses. Those respondents that indicated cash rents for cropland had increased as a result of the CRP felt that rents had increased by 16.7 percent. In contrast, those respondents that indicated cash rents for cropland had decreased because of the CRP felt that rents had decreased by 14.5 percent, a range of 31 percent. Responses in each county group were similar–small overall increases in cash rents for cropland and a wide range of values between those that thought cash rents for cropland had increased and those that thought cash rents for cropland had decreased. Responses are detailed in Table 13.

Table 13. Effects of the Conservation Reserve Program on Availability of Land to Rent, Cash Rents, and Comparison of Cash Rents to Average Conservation Reserve Program Payments, Landowners

CRP Payments/ Level of Cash Rents/ Availability of Land to Rent	Overall	Multi-county Groups: Adams Bowman Hettinger	Burke Divide	Eddy Griggs Nelson	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	responses from survey participants						
Cash rents higher than CRP payment							
Number of responses	200	30	24	35	39	43	29
Percent of respondents	28						
Average response ($/acre higher)	9.11	7.78	7.92	10.23	6.30	10.02	12.55
Cash rents lower than CRP payment							
Number of responses	125	14	8	29	22	16	36
Percent of respondents	18						
Average response ($/acre lower)	(8.82)	(6.57)	(6.88)	(8.48)	(7.77)	(8.06)	(11.39)
Cash rents equal to CRP payment							
Number of responses	382	56	45	89	74	44	74
Percent of respondents	54						
Overall (average of lower, higher, and equal)							
Total responses	707	100	77	153	135	103	139
Average of responses ($/acre)	1.02	1.42	1.73	0.73	0.55	2.93	(0.33)
CRP has increased cash rents							
Number of responses	190	29	15	30	28	31	57
Percent of respondents	32						
Average response (% increase)	16.7	16.3	12.5	14.6	20.6	18.6	16.0
CRP has decreased cash rents							
Number of responses	15	2	1	5	1	4	2
Percent of respondents	2						
Average response (% decrease)	-14.5	-12.5	-33.0	-12.0	-10.0	-15.0	-14.5
CRP has had no effect on cash rents							
Number of responses	395	50	62	84	79	57	63
Percent of respondents	66						
Overall (average of decrease, increase, no effect)							
Total responses	600	75	77	113	106	89	114
Average of responses (% change)	4.4	4.7	1.8	2.6	5.0	5.2	6.6
Effects of CRP on availability of land to rent							
No effect	28.1	20.8	23.6	31.2	30.2	37.3	23.7
Increase	1.4	2.1	1.6	0.5	1.6	2.8	0.6
Decrease	42.5	46.4	44.7	40.6	36.0	35.2	52.5
Do not know	28.0	30.7	30.1	27.7	32.2	24.7	23.2

Respondents were also asked to rate (1 for substantial positive and 5 for substantial negative) the impact of the CRP on several agribusiness sectors (Table 14). The general consensus was that the CRP negatively impacted 'machinery and equipment dealers,' 'elevator and grain handling facilities,' and 'general farm supply stores.' Respondents felt the other listed sectors, 'custom operators' and 'agriculture lenders' were not impacted negatively with an average score close to neutral. Few respondents, less than 20 percent, felt that the CRP had a positive effect on any of the agriculture sectors. Responses by multi-county study group were similar; however, respondents in Eddy, Griggs, and Nelson Counties felt more strongly that machinery dealers and elevators have been negatively impacted by the CRP than did respondents in Kidder, Logan, and Stutsman Counties. While the difference in average score was small (3.4 versus 3.9), the differences in the responses were statistically significant. Responses are detailed in Appendix Tables 16 through 21. There were no substantive differences in attitudes when responses were examined by occupation, age, income, acres enrolled, or education.

Table 14. Distribution of the Perceptions of the Effects of the Conservation Reserve Program on Agricultural Businesses in North Dakota, Landowners

		Distribution of Responses [a]					
Business Type	Average Score[a,b]	Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		----------% of respondents----------					
Machinery and equipment dealers (n=722)	3.6	9.0	11.8	14.0	38.1	27.1	22.6 (n=211)
Elevator and grain handling facilities (n=721)	3.7	8.1	10.8	16.6	34.4	30.1	22.2 (n=6)
Custom operators (n=690)	3.4	5.5	18.4	23.6	35.8	16.7	23.7 (n=215)
General farm supply (n=708)	3.7	6.2	12.4	16.0	40.4	25.0	22.4 (n=205)
Agricultural lenders (n=630)	3.1	9.7	20.0	31.0	28.9	10.4	30.9 (n=282)

[a] Respondents that answered 'do not know' were removed from the distribution of responses and average score.

[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Issues and Attitudes Toward the CRP

Respondents were asked their opinion on a number of general statements regarding the CRP. Respondents were asked if they agreed or disagreed with 13 statements detailing program principles, economic impacts, environmental impacts, and wildlife and recreational impacts. Opinions are based on a score of 1 to 5, where 1 is strongly disagree and 5 is strongly agree, and are detailed in Tables 15 and 16 and Appendix Tables 22 through 27. With an average score of 4.0, most respondents (76.6 percent), agreed (strongly and slightly) that the CRP is a cost-effective way to idle cropland. Respondents were also in general agreement with statements regarding environmental benefits. They agreed that CRP has 'helped stop soil erosion on marginal cropland' (average score 4.5), 'helped reduce flooding' (average score 3.9), and 'improved water quality in adjacent waters' (average score 3.9). Very few respondents (less than 10 percent) disagreed with those statements. While all groups generally agreed with those statements, respondents in Adams, Bowman, and Hettinger Counties felt significantly stronger on two water quality issues. Respondents in Adams, Bowman, and Hettinger Counties felt significantly stronger than respondents in Eddy, Griggs, and Nelson Counties regarding improved water quality and significantly stronger than respondents in Eddy, Griggs, and Nelson and Ransom and Sargent Counties regarding reductions in flooding as a result of the CRP.

While still in general agreement, responses were more variable when respondents were asked if more land should be enrolled in the CRP. Nearly 48 percent agreed more land should be enrolled in the program, but 31 percent were neutral and 22 percent disagreed. Approximately the same number felt that enrollment criteria should focus on marginal farmland characteristics, not wildlife habitat values; 54 percent agreed, 22 percent were neutral, and 24 percent disagreed. Average scores for both are just above neutral at 3.5 and 3.4, respectively. Responses were similar among study groups with no significant differences in their responses.

Respondents were also fairly evenly split when they were asked if the CRP was instrumental in keeping them on the farm. Twenty-eight percent agreed, 40 percent of the respondents were neutral, and 32 percent disagreed. The average score of 2.9 indicates that more respondents 'strongly disagreed,' pulling down the average score. Respondents in Burke and Divide Counties and Ransom and Sargent Counties differed significantly in their response. Respondents in Burke and Divide Counties generally agreed that the CRP was instrumental to keeping the farm, with an average score of 3.2, while respondents in Ransom and Sargent Counties generally disagreed that the CRP was instrumental to keeping the farm, with an average score of 2.7.

A majority of the respondents (58 percent) felt that crop prices would be lower without the CRP. The average score of 3.6 indicates respondents generally agreed with the statement. Opinions were more evenly split regarding the overall impact of the program on local and state economies. Thirty percent were neutral, roughly 39 percent agreed, and roughly 30 percent disagreed that the CRP had an overall positive impact on state and local economies. Average scores for impacts on local and state economies were nearly neutral (3.0 and 3.2, respectively). The only significant difference in county groups was between respondents in Adams, Bowman, and Hettinger Counties (average score 3.2) and Eddy, Griggs, and Nelson Counties (average score 2.8) regarding program impacts on local economies.

Table 15. Respondents' Opinions on Various Issues/Attitudes Regarding the Conservation Reserve Program in North Dakota, Landowners

Issue/ Attitude	Overall	Multi-county Groups: Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	average score [1]						
CRP is a cost-effective program to idle cropland	4.0	4.0[a]	4.1[a]	4.0[a]	4.0[a]	3.9[a]	4.0[a]
(n)	(932)	(132)	(117	(194)	(182)	(134)	(173)
Crop prices would be lower without CRP	3.6	3.7[a]	3.5[a]	3.5[a]	3.5[a]	3.4[a]	3.8[a]
(n)	(938)	(134)	(118)	(193)	(184)	(134)	(175)
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values	3.5	3.5[a,b]	3.6[a,b]	3.5[a,b]	3.5[a,b]	3.7[a]	3.1[b]
(n)	(933)	(135)	(118)	(194)	(181)	(133)	(172)
More land should be put into CRP	3.4	3.6[a]	3.4[a]	3.2[a]	3.4[a]	3.5[a]	3.4[a]
(n)	(949)	(136)	(121)	(196)	(185)	(137)	(174)
CRP has been instrumental in keeping me on the farm	2.9	2.8[a,b]	3.2[a]	2.8[a,b]	3.0[a,b]	2.9[a,b]	2.7[b]
(n)	(886)	(129)	(114)	(184)	(171)	(125)	(163)
CRP benefits farmers and sportsmen	4.1	4.3[a]	4.2[a]	4.0[a]	4.1[a]	4.0[a]	4.1[a]
(n)	(952)	(137)	(119)	(196)	(188)	(136)	(176)
CRP has had an overall positive effect on local economies	3.0	3.2[a]	3.1[a,b]	2.8[b]	3.2[a,b]	2.9[a,b]	3.0[a,b]
(n)	(944)	(136)	(119)	(195)	(186)	(134)	(174)
CRP has had an overall positive effect on the state economy	3.2	3.4[a]	3.3[a]	3.0[a]	3.3[a]	3.2[a]	3.1[a]
(n)	(939)	(136)	(117)	(193)	(185)	(133)	(175)
CRP has helped stop soil erosion on marginal cropland	4.5	4.5[a]	4.6[a]	4.4[a]	4.5[a]	4.5[a]	4.4[a]
(n)	(958)	(138)	(120)	(197)	(190)	(137)	(176)
CRP has helped reduce flooding by controlling water runoff	3.9	4.2[a]	3.9[a,b]	3.7[b]	4.0[a,b]	4.0[a,b]	3.8[b]
(n)	(948)	(137)	(120)	(197)	(186)	(132)	(176)
CRP contract holders should have the right to use that land for fee and lease hunting	3.5	3.7[a]	3.4[a]	3.5[a]	3.3[a]	3.6[a]	3.4[a]
(n)	(951)	(138)	(118)	(196)	(187)	(136)	(176)
CRP is facilitating the spread of fee and lease hunting	3.4	3.7[a]	3.3[b]	3.2[b]	3.4[a,b]	3.3[b]	3.4[a,b]
(n)	(932)	(136)	(115)	(194)	(184)	(129)	(174)
CRP has improved water quality in adjacent wetlands, lakes, and streams	3.9	4.2[a]	3.9[a,b]	3.7[b]	4.0[a,b]	4.0[a,b]	3.9[a,b]
(n)	(951)	(136)	(119)	(197)	(188)	(135)	(176)

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

[a] For each issue/attitude, county groups with the same letter are not significantly different, $\propto$=.05

[b] For each issue/attitude, county groups with the same letter are not significantly different, $\propto$=.05.

Table 16. Distribution of Responses to Various Statements Regarding Issues/Attitudes of the Conservation Reserve Program in North Dakota, Landowners

Issue/ Attitude	Average Score [1]	Distribution of Responses: Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
		% of respondents				
CRP is a cost-effective program to idle cropland (n=932)	4.0	3.2	6.7	13.5	42.2	34.4
Crop prices would be lower without CRP (n=938)	3.6	9.4	10.3	21.4	33.3	25.6
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values (n=933)	3.5	9.1	14.7	22.2	26.9	27.1
More land should be put into CRP (n=949)	3.4	9.0	12.9	30.5	25.5	22.1
CRP has been instrumental in keeping me on the farm (n=886)	2.9	21.8	10.3	39.5	14.7	13.7
CRP benefits farmers and sportsmen (n=952)	4.1	3.8	4.7	9.4	40.7	41.4
CRP has had an overall positive effect on local economies (n=944)	3.0	14.2	19.8	30.0	20.9	15.1
CRP has had an overall positive effect on the state economy (n=939)	3.2	11.0	16.1	30.2	27.0	15.7
CRP has helped stop soil erosion on marginal cropland (n=958)	4.5	2.6	1.2	5.0	28.6	62.6
CRP has helped reduce flooding by controlling water runoff (n=948)	3.9	3.4	6.3	19.6	35.5	35.2
CRP contract holders should have the right to use that land for fee and lease hunting (n=951)	3.5	16.1	7.6	21.4	22.3	32.6
CRP is facilitating the spread of fee and lease hunting (n=932)	3.4	7.5	7.7	42.2	27.0	15.6
CRP has improved water quality in adjacent wetlands, lakes, and streams (n=951)	3.9	2.3	4.2	24.1	35.9	33.5

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

Respondents also on average agreed on wildlife and recreation issues. Eight-two percent of the respondents agreed that the CRP benefits both farmers and sportsmen while only 8 percent disagreed. An average score of 4.1 reflects relatively strong agreement on the issue. Responses were consistent across all county groups with average scores of at least 4.0. There was less consensus among respondents' opinions regarding landowners' rights to use CRP land for fee and lease hunting. Only half (55 percent) felt landowners should have the right to use CRP land for fee and lease hunting, 21 percent were neutral, and 23 percent disagreed. The average score of 3.5 further illustrates the lack of consensus and there were no significant differences between the study groups. There seems to be some agreement that the CRP is facilitating the spread of fee and lease hunting (average score 3.5). Only 15 percent disagreed with the statement, 42 percent neither agreed nor disagreed, and 43 percent agreed. The large number of neutral responses tempers the average score. Responses by multi-county study groups were consistent with overall results; however, there were some significant differences between the study groups. Respondents in Adam, Bowman, and Hettinger Counties felt significantly stronger that the CRP is facilitating the spread of fee and lease hunting than did respondents in three study groups: McHenry, Peirce, and Sheridan; Burke and Divide; and Eddy, Griggs, and Nelson Counties. More respondents agree with the statement in Adams, Bowman, and Hettinger Counties (62 percent) than the other study groups. Less than 50 percent of respondents agreed with the statement in the other study groups.

Recreation Issues

A salient effect of the CRP has been growing wildlife populations, which can lead to increased recreational activity, particularly hunting, in some areas. However, as was discussed during local leader interviews, increased hunting pressure is sometimes reported to motivate landowners to post land enrolled in the CRP and other privately owned lands 'no hunting.' These issues are examined in the sections that follow.

Effect on Wildlife Populations

Most survey respondents believed that the CRP has contributed to growing wildlife populations. Almost 78 percent of respondents believed that the CRP had contributed to growing upland game populations (e.g., pheasant, grouse) and almost one-half believed that the CRP's contribution to the population increase was 25 percent or more (Table 17). More than 82 percent of respondents believed that the CRP contributed to growth in big game (e.g., deer populations), with about 57 percent indicating that the CRP's contribution had been 25 percent or more. Responses were similar when landowners were queried about waterfowl and furbearer populations. About two-thirds of respondents indicated that the CRP had contributed to growth in waterfowl populations, while more that 60 percent believed that furbearer populations had increased as a result of the CRP. Positive impacts on other species (e.g., doves, hawks) were similarly rated.

Effects of the CRP on wildlife populations varied somewhat among the study areas (Appendix Table 28). While about 50 percent of respondents overall felt that upland game populations had increased 25 percent or more as a result of the CRP, more than 78 percent of respondents in Adams, Bowman, and Hettinger Counties indicated that the population growth as a result of the CRP had been at least 25 percent, while only 37 percent of respondents in Eddy, Griggs, and Nelson Counties indicated that the population growth attributable to the CRP had been at least 25 percent. Big game populations were viewed as being substantially affected in all areas.

The percentage of respondents who felt that big game populations had increased 25 percent or more as a result of the CRP ranged from 49 percent in Burke and Divide Counties to 66 percent in McHenry, Pierce, and Sheridan Counties. Responses for growth of waterfowl populations of 25 percent or more as a result of the CRP ranged from 26 percent in Burke and Divide Counties to 50 percent in Kidder, Logan, and Stutsman Counties.

Table 17. Effect of CRP on Wildlife Populations, Landowners

Types of Wildlife	>50% Increase	25-50% Increase	1-25% Increase	No Change	Decrease	Don't Know
	----------% of respondents----------					
Upland Game	21.1	28.6	27.9	11.2	1.1	10.2
Big Game	22.2	34.7	25.2	7.6	0.7	9.6
Waterfowl	15.6	26.0	25.2	20.4	1.9	10.8
Furbearers	10.0	22.8	28.7	19.8	2.7	16.0
Others	10.5	21.6	27.8	21.1	1.1	18.0

Effect on Recreational Activities

Survey respondents generally felt that hunting and trapping in their county had increased as a result of the CRP (Table 18). Overall, 58 percent of respondents indicated hunting and trapping had increased, and 27 percent felt the increase had been substantial. More than one-third of the respondents indicated bird watching/wildlife viewing had increased, but a similar percentage believed there was no effect. Only 4 percent felt the effect on birdwatching/wildlife viewing was negative. Most respondents felt there had been no effect on other types of outdoor recreation (e.g., camping and horseback riding).

While responses varied among county groups, at least half of the respondents in each study area indicated hunting activity had increased (Appendix Table 29). The portion of respondents citing an increase in activity ranged from 70 percent in the Adams, Bowman, and Hettinger Counties to 51 percent in Eddy, Griggs, and Nelson Counties. The segment of respondents who indicated that birdwatching/wildlife viewing had increased, ranged from 43 percent in the Adams, Bowman, and Hettinger Counties to 32 percent in McHenry, Pierce, and Sheridan Counties. Less than 20 percent of respondents in all areas believed the CRP led to increased camping and horseback riding.

Respondents were queried regarding the effect of the CRP on both the number of hunters and the amount of time spent hunting in the area. The effect of the CRP on hunting activity is examined in Table 19. Because a substantial portion of the sample (17 to 27 percent, depending on the question) indicated that they did not know what the effects had been, only those that expressed an opinion are included in the distribution of responses.

Table 18. Effect of the Conservation Reserve Program on Participation in Selected Recreational Activities, Landowners

	Change Resulting from CRP					
	Increase			Decrease		
Type of Activity	Substantial	Slight	No Effect	Slight	Substantial	Don't Know
	----------% of respondents----------					
Hunting and Trapping	27.3	30.5	24.4	1.1	2.4	14.4
Birdwatching/ Wildlife Viewing	11.1	25.8	38.7	3.0	1.2	20.3
Camping	2.3	9.3	64.9	0.6	1.0	21.9
Horseback Riding	2.6	10.2	63.3	1.4	1.0	21.6

Table 19. Effect of the Conservation Reserve Program on Hunter Participation and Time Spent Hunting, Landowners

Hunting Type	Positive Effect [a]	No Effect	Negative Effect [a]	Don't Know [b]
Upland Hunting				
Number of responses	1,961	640	51	551
Percent	73.9	24.1	1.9	17.2
Big Game Hunting				
Number of responses	1,697	709	36	617
Percent	69.5	29.0	1.5	19.6
Waterfowl Hunting				
Number of responses	1,509	846	67	591
Percent	62.3	34.9	2.8	19.6
Other Hunting/Trapping				
Number of responses	878	1,180	12	785
Percent	41.8	56.2	1.9	27.2

[a] Includes both the effect on hunter participation and time spent hunting, and as such the number of responses can be greater than the number of questionnaires.
[b] Respondents that selected 'do not know' were excluded from the calculation.

Respondents indicated that the CRP has had a positive impact on both the number of hunters and time spent hunting. For upland hunting, 74 percent of respondents that had an opinion felt that the CRP had a positive impact on the number of hunters and the amount of time spent hunting. Results were similar for other types of hunting. Sixty-nine percent of respondents felt that big game hunting had been positively impacted and 62 percent felt waterfowl hunting had been positively impacted. Almost all of the respondents that did not indicate that the CRP had positively impacted hunter participation and time spent hunting indicated there was no effect. Less than 3 percent of respondents in each category indicated a negative effect on hunter participation and/or time spent hunting. Clearly there was broad agreement among respondents that the CRP has positively impacted hunting activities and participation levels.

Of those respondents that indicated they 'do not know' what effect the CRP had on hunting, a disproportionate number were out-of-state residents. Roughly 50 percent of out-of-state residents responded 'do not know' compared to roughly 15 percent of the respondents that lived in the survey county. Respondents that lived in an adjacent county or elsewhere in North Dakota fell in between the other two groups with roughly 20-30 percent responding 'do not know.' The only exception was waterfowl. Sixty percent of residents from 'elsewhere in North Dakota' responded 'do not know' compared to 50 percent of out-of-state respondents (Appendix Table 30).

Respondents' perceptions of hunter participation and time spent hunting by hunter residency (local, nonlocal in-state, and out-of-state) are detailed in Appendix Table 31. Respondents' perception of the effects of the CRP on hunter participation and time spent hunting were overwhelmingly positive. All types of hunting (upland, waterfowl, and big game) were viewed similarly positive; however, the impact on big game hunters and big game hunting primarily impacts local and nonlocal, in-state hunters (the number of firearm permits available to out-of-state big game hunters has generally been limited).

Effects of Recreational Activities on Local Businesses

The effects of changes in recreational activities on local business were generally viewed as positive (Table 20). About 55 percent of respondents believed that convenience stores had experienced positive effects, while almost 49 percent rated the effects on restaurants and sporting goods stores as positive. Respondents also perceived that 'taxidermy/game processing businesses' and 'guides and outfitters' were positively affected, 40 percent and 32 percent, respectively. As with questions regarding hunter participation, the percentage of 'don't know' responses was quite high (22 to 27 percent depending on the question) and most common among respondents living outside North Dakota (Appendix Table 32). For example, 47 percent of nonresident respondents indicated they did not know if restaurants had been affected, compared to 15 percent of respondents living within the county where their CRP land is located. Responses were similar for other business sectors. Respondents that lived in an adjacent county or elsewhere in North Dakota again fell in between the other two groups with roughly a quarter of those respondents answering 'don't know.'

Table 20. Effect of Recreational Activities on CRP Land on Selected Types of Local Businesses, Landowners

Business Type	Overall Score [a]	Distribution of Responses					
		Positive			Negative		
		Substantial	Slight	No Effect	Substantial	Slight	Don't Know [b]
		----------% of respondents----------					
Restaurants and Motels	2.2	17.2	31.4	24.4	3.2	1.7	22.2
(n=952)							(207)
Sporting Goods/ Supplies	2.2	14.8	33.7	26.1	1.3	0.5	23.6
(n=947)							(217)
Taxidermy/ Game Processing	2.3	10.0	30.2	31.5	1.0	0.4	26.9
(n=940)							(244)
Convenience Stores	2.1	18.8	35.9	21.2	1.8	1.3	20.9
(n=932)							(188)
Guide Services and Outfitters	2.4	11.2	21.0	39.1	0.9	0.8	27.1
(n=932)							(245)

[a] Based on a score of 1 to 5, where 1 is strongly disagree and 5 is strongly agree.
[b] Don't know not included in distribution of responses and average score.

While roughly half of the respondents felt that the CRP had positively impacted select nonagricultural businesses, responses varied by multi-county study area. The respondents in Adams, Bowman, and Hettinger Counties perceived the impacts on 'restaurants and motels,' 'sporting goods/supplies,' 'taxidermy, game processing,' 'conveniences stores,' and 'guide services/outfitters' more positively and the differences were significant. For example, with an average score of 1.6 (1 is substantial positive and 5 is substantial negative), 90 percent of respondents in Adams, Bowman, and Hettinger Counties rated the effects on convenience stores as positive. While the other study groups also rated the effects positively (average scores 2.1-2.4), their responses were statistically significant. Responses are detailed in Appendix Tables 33 through 39.

Hunting Activities and Access

Survey respondents in each area believed that the amount of land posted 'no hunting' in their area had increased since the CRP began (i.e., since 1985) (Table 21). Overall, 45 percent of respondents felt that the amount of land posted has increased, while 27 percent felt it has remained the same, and less than 2 percent responded that posting has decreased. Again, a substantial segment of respondents (29 percent) indicated they did not know if posting had increased or not; most responding 'don't know' lived outside the area (Appendix Table 40). For example, of the respondents who lived outside North Dakota, 61 percent indicated they did not know about changes in posting, whereas only 18 percent of those that lived within the county where the land was located gave this response. More respondents in Adams, Bowman, and Hettinger Counties believe posting has increased (67 percent) than the other study groups. The fewest were in Ransom and Sargent Counties (37 percent). These results do not imply that the CRP is the cause of the increased posting. The question simply asked landowners to report their observations.

When asked whether access to CRP land in their area was more or less restrictive than on other land, the largest group of respondents (47 percent) felt there was no difference, 18 percent felt access to CRP land was more restrictive, and only 5 percent felt access to CRP land was less restrictive (Table 21). About 29 percent indicated they 'did not know' how access to CRP land compared to access to other land types. Again, the 'do not know' response was most common for respondents living outside North Dakota (64 percent) and least common for those living within the county (20 percent) (Appendix Table 41). Respondents from the Adams, Bowman, and Hettinger Counties were most likely to feel that access to CRP land was more restrictive (29.7 percent), while those from the McHenry, Pierce, and Sheridan Counties and Ransom and Sargent Counties generally felt there was no difference (53 percent each) (Table 21).

When asked to describe hunter access to their own CRP land, respondents most often indicated that their CRP land was not posted (41 percent), followed by those who indicated that their CRP land is posted but they grant permission to hunters (39 percent). About 10 percent indicated that only their family and friends are allowed to hunt and just 4 percent indicated no hunting was allowed (Appendix Table 42). Only 1.5 percent of respondents indicated that they lease their land (either to an outfitter/guide or to individuals) or charge a fee for hunting. Fee hunting was most widespread among respondents in the Adams, Bowman, and Hettinger Counties, where 4.4 percent of respondents reported receiving access fees from hunters while another 1.5 percent leased their land. Fee and/or lease hunting, however, could involve other types of land; for example, land not enrolled in the program or wetlands.

When asked if their position regarding posting had changed since enrolling in the CRP, 89 percent of respondents indicated that it had not changed (Appendix Table 42). Of those whose position had changed, the majority (51 percent) indicated that they now post more of their land than before the CRP. Another 22 percent indicated that they had begun posting since enrolling, while 26.5 percent had stopped posting since enrolling in the CRP.

Table 21. Position on Hunting Access, Landowners

Item	Multi-county Groups: Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent	Overall
	% of respondents						
Has amount of land posted changed since CRP began?							
Has increased	66.9	48.3	38.4	49.2	37.0	37.2	45.5
No change	11.5	28.3	32.0	21.5	31.9	32.0	26.5
Has decreased	0.7	2.5	0.5	1.6	3.6	1.2	1.6
Do not know	20.9	20.8	29.1	27.8	27.5	29.7	26.5
Area wide hunting access to CRP compared to other land:							
Access to CRP land is more restrictive	29.7	24.0	14.9	20.7	7.3	15.0	18.2
No difference	42.0	45.4	47.5	43.0	52.9	53.2	47.4
Access to CRP land is less restrictive	3.6	3.3	5.0	3.6	8.0	6.4	5.0
Do not know	24.6	27.3	32.7	32.6	31.2	26.0	29.4

To ease recreational access problems, the North Dakota Game and Fish Department (ND G&F) initiated a Private Land Open To Sportsmen (PLOTS) program in 1998. The PLOTS program has several types of agreements, one of which is the CRP Cost-sharing Program. In this program, if the landowner agrees to allow unlimited walk-in hunting access, the ND G&F will assist with the cost of establishing the CRP cover. PLOTS land is marked with distinctive signs and maps indicating the location of these lands are distributed to sportsmen. Overall, 17 percent of survey respondents indicated that they are participating in the PLOTS program. Participation ranged from 14 to 20 percent across the study groups (Table 22).

When queried about reasons for not participating, respondents in each area most often (41 percent) indicated that they were not aware of the program (Table 22). Other reasons for not participating were that their CRP cover was already established when the program began (25 percent) and that the economic incentive was not sufficient to compensate for relinquishing control over access (24 percent). The concern that the economic incentive was inadequate was mentioned most often in McHenry, Pierce, and Sheridan Counties (23.8 percent), followed by Adams, Bowman, and Hettinger Counties (23.5 percent), and least in Kidder, Logan, and Stutsman Counties (9.1 percent).

Table 22. Respondents' Participation in PLOTS (Private Land Open To Sportsmen) Program, Landowners

Item	Overall	Multi-county Study Area: Adams Bowman Hettinger	Burke Divide	Eddy Griggs Nelson	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	----------% of respondents----------						
Currently participating:							
Yes	16.8	20.2	13.6	20.1	17.9	20.1	18.0
No	83.2	79.8	86.4	79.9	82.1	79.9	82.0
Reason for Not Participating:							
Unaware of Program	41.0	62.0	64.9	55.2	61.8	53.8	56.9
Insufficient Economic Incentive	23.8	19.6	14.9	16.8	9.1	23.5	17.7
Contract Rejected	0.0	0.0	0.6	0.7	0.0	0.0	0.3
Not Available in my Area	0.0	1.1	3.0	0.0	5.5	3.0	2.1
CRP Cover Already Established	24.8	14.1	15.5	20.3	20.9	13.6	18.0
Land Leased for Hunting	1.9	0.0	0.0	1.4	1.8	0.0	0.8
Other	8.6	3.3	1.2	5.6	0.9	6.1	4.1

Future Decision Regarding the Use of CRP Land

Assuming enrollment criteria and contract payments remain the same, landowners were asked what would be the preferred land use choice when their current CRP contract expires (Table 23). Eighty-eight percent of the respondents would re-enroll at least some land in CRP, and 80 percent of respondents would re-enroll all of their land currently enrolled in the CRP. Only 12 percent of the respondents would not re-enroll any of their land in the program. Even when respondents felt that cash rents were more than CRP payments, 83 percent of the respondents would re-enroll at least some land, and 72 percent would re-enroll at least 75 percent of their land (Table 24). Results were similar for respondents who felt that cash rents were less than CRP payments. Eighty-six percent of the respondents indicated they would re-enroll at least some land and 79 percent indicated they would re-enroll at least 75 percent of their land.

When asked how land would be managed if the program were not renewed or if the landowner chose not to re-enroll the land, 68 percent of the respondents indicated they would return at least some of the land to crop production, and 43 percent said they would return all of their land currently enrolled in CRP to crop production (Table 23). Returning land to hayland was the next preferred land use with 34 percent of the respondents indicating they would convert at least some of the land to hay production.

Table 23. Land Use Preferences Upon CRP Contract Expiration, Landowners

Preferred choice for current CRP land:	% of Respondents
Re-enroll some[a]	88.6
Not re-enroll any	11.4
Re-enroll all	80.0
Land use if program is terminated or land not re-enrolled:	
Cropland[a]	67.5
Hayland[a]	34.5
Pasture[a]	20.3
Sell Land[a]	9.3
Permanent Cover[a]	7.5

[a] Land owners would re-enroll at least one percent

Table 24. Decision to Re-enroll Current CRP Acreage Based on Assessment of CRP Payments and Cash Rents, Landowners

Acres Re-enrolled	Cash rents more than CRP payments	Cash rent less than CRP payments	Cash rents nearly the same	Don't know
	----------percent of landowners----------			
zero	17.2	14.2	8.9	7.9
1 - 25 percent	1.0	1.5	0.3	0.0
26 - 50 percent	6.9	3.7	3.3	3.2
51 - 75 percent	2.5	1.5	2.5	0.5
75 - 100 percent	72.4	79.1	85.0	88.4

Other Comments

Survey respondents were given the opportunity to write comments on any issue related to the CRP. Comments were coded by issue and segregated by multi-county groups (Appendix Table 44). The most prevalent write-in comment suggested leaving the program 'as is.' Over 16 percent of the over 400 write-in comments supported the current program stating the program is good for farmers and good for retiring marginal cropland. Support of the CRP in its current form was the number one write-in comment in all but McHenry, Pierce, and Sheridan Counties, where weed control issues were the number one write-in comment. Another common theme centered on dissatisfaction with enrollment criteria. Comments generally included statements opposing enrolling good farmland and objections to the programs' emphasis on wildlife benefits as a condition for enrollment. Over 10 percent of the write-in comments addressed concerns regarding enrollment criteria.

Fee hunting was also a common theme. Nearly 10 percent of the write-in comments addressed the topic. Respondents supported the use of CRP land for hunting, but objected to leasing land for hunting purposes only. Opposition to leasing CRP land for hunting was a common theme in all county groups. Weeds, inability to control weeds, and lax and/or inconsistent enforcement of weed control provisions were also common themes expressed in the write-in comments (9.4 percent). Weed issues were most prevalent in the central and eastern areas of the state and were not mentioned as frequently in the northern and western areas of the state.

Issues related to haying CRP lands also ranked high among respondents (6.4 percent). Suggestions included periodic haying for a range of reasons including, to control weeds, improve the grass stand, provide livestock feed during drought or other emergency situations, and reduce the risk of fire. Many of those themes were also voiced during the leadership interviews. Several respondents commented (6.2 percent) on the level of payments. Suggestions included tying payments to cash rents and/or creating a mechanism to balance the inequity in payment rates among various CRP tracts. Other comments included: (1) the program has hurt local businesses (5.4 percent), (2) the program hurt young farmers by limiting the amount of land available for rent (4.2 percent), and (3) the program helped farmers to quit or retire (3.9 percent). Other comments (totaling at least 3 percent of all write-in comments) included limiting CRP enrollment (for example, limiting enrollment to only 50 percent of any individual's total acreage), not allowing sod to be broken and then placed in the CRP, and restricting enrollment to active farmers and those living in the area. Two final comments that totaled 3 percent of all write-in comments concerned hunter attitudes and behavior, and disappointment with current farm legislation and poor commodity prices.

Summary and Comparison of Leadership Surveys

In addition to personal interviews, each community leader was asked to fill out a written questionnaire. While the response rate was very good, it is important to remember that the leadership survey was not distributed to a random sample. Also, the sample size was relatively small. These two factors made it difficult to draw any definitive conclusions based on the leadership surveys.

Demographic Characteristics

Demographic characteristics of local decision makers was markedly different than the landowners (Table 25). Average age was 48, nearly 13 years younger than landowners with 64 percent of leaders under age 50, compared to only 24% for landowners. The local leaders on average had higher levels of education and are relatively newer residents. Eight-nine percent of local leaders have attended some college and/or graduate school, and they have resided in the survey county on average for 28 years, compared with landowners' average residency of 43 years (Table 25). Even though average years of residency for local decision makers was less than for landowners, the majority of the leader respondents have resided in the survey county for over 30 years. As would be intuitively expected, very few local decision makers indicated their occupation as farming/ranching (9 percent). The most common response was 'public service' (31 percent), followed by 'banking/insurance' (28 percent) (Table 26).

Table 25. Age, Education, Income, Length of Residency, Local Leaders and Landowners

Characteristic	Local Leaders	Contract Holders
	---- % of respondents ---	
Education		
No high school	0.0	12.2
High school	10.7	34.3
College	73.2	40.7
Graduate school	16.1	12.8
Household Income ($)		
0 to 25,000	3.6	31.6
25,001 to 50,000	46.4	39.5
50,001 to 100,000	44.6	21.9
100,001 to 150,000	5.4	3.1
Over 150,000	0.0	2.9
Age (years)		
21 to 35	12.5	2.9
36 to 50	51.8	20.9
51 to 65	32.1	35.3
Over 65	3.6	40.9
Average Age	47.6	61.3
Time in County (years)		
1 to 5	8.9	4.9
6 to 10	10.7	6.5
11 to 20	21.4	9.5
21 to 30	17.9	12.9
over 30	41.1	66.2
Average years in county	28.3	43.0

Table 26. Occupation of Respondents, Local Leaders and Contract Holders

Occupation	Local Leaders	Contract Holders
	-- % of respondents --	
Farmer/rancher	8.6	58.7
Public service	31.0	4.7
Management	12.7	4.1
Education	3.4	4.0
General Labor	0.0	4.0
Construction	0.0	3.8
Sales	8.6	2.9
Banking/Insurance	27.6	2.7
Medical	0.0	2.1
Secretarial/clerical	1.7	1.7
Machinist/welder	0.0	1.3
Accounting	1.7	1.1
Mechanic/automotive	0.0	1.1
Engineer	0.0	1.0
Other[a]	0.0	6.8

[a] Most frequent occupations listed were housewife/homemaker (2.1%), trucking/transportation (1.3%), and attorney/legal work (0.3%).

Agriculture Issues

Local leaders were very united (84 percent) in their opinion that the CRP had reduced the availability of land to rent. Landowners' views varied as only 42 percent thought the CRP had reduced the availability of land to rent. Local leaders that indicated the CRP had increased cash rents said cash rents were on average 17 percent higher, exactly the same percentage increase expressed by landowners. Local leaders' overall average change (higher, lower, and no change) in rental rates is higher than landowners: 12 percent versus 4 percent. This may be slightly misleading as a majority of landowners (54 percent) indicated that cash rents were equal to CRP payments. With such a large percentage of 'no effect" or zero percent change, the average overall increase is pulled down. None of the local decision makers thought that CRP had decreased cash rents (Table 27).

Table 27. Effects of the Conservation Reserve Program on Availability of Land to Rent and Effects on Level of Cash Rents, Local Leaders and Landowners

Level of Cash Rents/ Availability of Land to Rent	Local Leaders	Contract Holders
CRP has increased cash rents		
Number of responses	38	190
Percentage of respondents	73	33
Average response (% increase)	16.9	16.7
CRP has decreased cash rents		
Number of responses	0	15
Percentage of respondents	0	3
Average response (% decrease)	- -	-14.5
CRP has had no effect on cash rents		
Number of responses	14	395
Percentage of respondents	27	69
Overall (average of decrease, increase, no effect)		
Total responses	52	574
Average of responses (%)	12.3	4.4
Effects of CRP on availability of land to rent		
No effect	5.3	28.1
Increase	5.3	1.4
Decrease	84.2	42.5
Do not know	5.3	28.0

Local decision makers felt relatively stronger than landowners that most related agribusiness sectors had been negatively impacted by the CRP. However, because of the small sample size of the leadership survey and nonrandom nature of the survey, tests of significance were not appropriate. Based on average scores, both leaders and landowners felt that agribusiness sectors had been negatively impacted; however, the leaders felt the impact was slightly more substantial. Like the landowners, local leaders felt that 'machinery and equipment dealers' and 'elevators and grain handling facilities' had been impacted more negatively than 'custom operators' and 'agricultural lenders.' The only sector that the leaders did not feel was

negatively impacted was 'agricultural lenders.' Both groups' average scores for 'agricultural lenders' were neutral, indicating the respondents felt there had been no change. Local leaders' average score was 3.0, compared to 3.1 for the landowners (Table 28).

Issues and Attitudes Toward the CRP

Local leaders' opinions on program principles, economic impacts, environmental impacts, and wildlife and recreational impacts were similar to the responses of the landowners; however, there were some exceptions (Table 29, Appendix Table 44). Using the same 1 to 5 score where 1 is strongly disagree and 5 is strongly agree, local decision makers felt somewhat less strongly than landowners that the CRP is a cost-effective program to idle cropland. Again, because of the nature of the leadership survey, tests of significance are not appropriate, nor is it possible to make definitive statements about the two groups' differences or similarities. Landowners' average score was 4.0, while local decision makers' average score was 3.3. Further, the two groups of respondents had differing opinions on whether more land should be enrolled in the CRP. Landowners on average somewhat agreed that more land should be enrolled in the program (average score of 3.4); while local leaders somewhat disagreed that more land should be enrolled in the program (average score of 2.3). The two groups also disagreed when asked to rate the overall effect of the program on local and state economies. Landowners were neutral to slightly positive (3.0 on local economies, 3.2 on the state economy); however, local leaders somewhat disagreed that the CRP had an overall positive impact on local economies (2.5) and the state economy (2.7). Leaders also had different views than landowners on whether CRP contract holders should have the right to use land for fee and lease hunting. Landowners somewhat agreed with an average score of 3.5, while the local leaders somewhat disagreed with an average score of 2.7. Leaders and landowners were in general agreement on the remaining issues.

Recreation Issues

As was discussed earlier, CRP acreage is sited as a primary reason for enhanced wildlife populations. Those populations in turn can provide additional recreational opportunities. Like landowners, local leaders also believe that the CRP has had a positive effect on recreational activities in North Dakota (Table 30). Nearly 77 percent of the local leaders believed that hunting and trapping had increased as a result of the CRP, with 29 percent indicating a substantial increase. While only 58 percent of landowners believed that hunting and trapping had increased, and that might suggest a difference in perceptions between landowners and leaders, it is important to keep in mind that no leaders responded 'do not know' but a substantial number of landowners (14 percent) did respond 'do not know.' If a similar number of leaders responded 'do not know,' the differences in responses between the two groups would only be 5 percent. A reasonable explanation for the difference may be that a majority of the respondents that answered 'do not know' in the landowner survey were out-of-state residents. There were no out-of-state respondents in the local leader survey. The pattern was consistent across other recreational activities as well. At first glance it appeared that local leaders felt the increase in recreational activity was more substantial than landowners; however, when the number of contract holders that responded 'do not know' were considered, the responses were similar. Fifty-two percent of the leaders believed that bird/wildlife viewing had increased compared to 37 percent of landowners, with 20 percent of the landowners responding 'do not know.' Most local leaders felt similar to landowners that the CRP had no effect on camping and horseback riding.

Table 28. Distribution of the Perceptions of the Effects of the Conservation Reserve Program on Agricultural Businesses, Local Leaders

Business Category	Survey Group		Distribution of Local Leader Responses					
	Local Leaders	Contract Holders	Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
	-----average score [a] -----		----------percentage of respondents----------					
Machinery and Equipment Dealers (n=56)	4.1	3.6	7.1	0	3.6	44.6	37.6	7.1
Elevators/Grain Handling Facilities (n=56)	4.2	3.7	5.4	1.8	3.6	44.6	39.3	5.4
Custom Operators (n=57)	3.6	3.4	5.3	7	19.3	45.6	15.8	7
General Farm Supply (n=56)	4.1	3.7	1.8	7.1	3.6	46.4	37.5	3.6
Agricultural Lenders (n=56)	3	3.1	5.4	28.6	19.6	21.4	7.1	17.9

[a] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Table 29. Opinions on Various Issues/Attitudes Regarding the Conservation Reserve Program, Local Leaders and Contract Holders

Issue/ Attitude	Local Leaders	Contract Holders
	----- average score [a] -----	
CRP is a cost-effective program to idle cropland	3.3	4.0
(n)	(56)	(932)
Crop prices would be lower without CRP	3.0	3.6
(n)	(57)	(938)
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values	3.7	3.5
(n)	(57)	(933)
More land should be put into CRP	2.3	3.4
(n)	(55)	(949)
CRP has been instrumental in keeping me on the farm	2.6	2.9
(n)	(57)	(886)
CRP benefits farmers and sportsmen	3.9	4.1
(n)	(57)	(952)
CRP has had an overall positive effect on local economies	2.5	3.0
(n)	(56)	(944)
CRP has had an overall positive effect on the state economy	2.7	3.2
(n)	(57)	(939)
CRP has helped stop soil erosion on marginal cropland	4.5	4.5
(n)	(57)	(958)
CRP has helped reduce flooding by controlling water runoff	3.7	3.9
(n)	(57)	(949)
CRP contract holders should have the right to use that land for fee and lease hunting	2.7	3.5
(n)	(57)	(951)
CRP is facilitating the spread of fee and lease hunting	3.6	3.4
(n)	(57)	(932)
CRP has improved water quality in adjacent wetlands, lakes, and streams	3.8	3.9
(n)	(57)	(951)

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

Table 30. Distribution of the Perceptions of the Effects of the Conservation Reserve Program on Recreational Activities in North Dakota, Local Leaders

Recreational Category	Distribution of Responses				
	Substantial Increase	Slight Increase	Neither	Slight Decrease	Substantial Decrease
	% of respondents				
Hunting/Trapping	28.6	48.2	19.6	1.8	1.8
Bird/Wildlife Viewing	8.0	44.0	46.0	2.0	0.0
Camping	3.6	14.6	76.4	5.4	17.0
Horseback Riding	0.0	9.4	86.8	3.8	0.0

Local leader opinions on the effects of the CRP on wildlife populations mirror those of landowners (Table 31). While both respondent groups felt that 'upland game' and 'big game' had the greatest population growth, all wildlife species populations were thought to have increased as a result of the CRP. Ninety percent of the local leaders felt that upland game and big game populations had increased and 80 percent of the leaders felt that furbearer and other game populations had increased. More than 70 percent of the local lenders believed that waterfowl populations had increased.

Table 31. Effect of CRP on Wildlife Populations, Local Leaders

	Increase in Population			No Effect	Decrease in Population			Don't Know
Type of Wildlife	>50%	25-50%	1-25%		<50%	25-50%	1-25%	
	% of respondents							
Upland Game (pheasant, grouse)	22.9	36.8	33.3	5.3	0	0	1.7	0
Big Game (deer, antelope)	12.3	40.4	40.3	7	0	0	0	0
Waterfowl (ducks, geese)	5.3	33.3	33.3	24.6	0	0	0	3.5
Furbearers (fox, coyote)	8.8	21	43.9	19.3	1.8	1.7	0	3.5
Other (dove, hawks, crows)	8.8	24.6	40.3	19.3	1.7	0	0	5.3

Local leaders also agreed that the CRP had positively impacted both the number of hunters and the amount of time people spend hunting (Table 32). Responses were consistent with landowner responses within a few percentage points. For example, 74 percent of landowners felt that the CRP had a positive effect on upland hunter participation and the amount of time people spend hunting upland game compared to 78 percent for the local leaders on the same issue.

Table 32. Effect of the Conservation Reserve Program on Hunter Participation and Time Spent Hunting, Local Leaders

Hunting Type	Positive Effect [a]	No Effect	Negative Effect [a]	Don't Know
Upland Hunting				
Number of responses	177	45	0	3
Percent	78.6	20	0	1.3
Big Game Hunting				
Number of responses	137	59	0	22
Percent	62.8	27.1	0	10.1
Waterfowl Hunting				
Number of responses	166	41	6	8
Percent	75.1	18.5	2.7	3.6
Other Hunting/Trapping				
Number of responses	92	69	6	38
Percent	44.8	33.6	3	18.6

[a] Includes both hunter participation and time spent hunting; therefore, number of responses may exceed the number of questionnaires in the data set.

There was also widespread agreement among local leaders that nonagricultural business sectors were positively impacted by recreational activities on CRP land in the area (Table 33). At least 50 percent of the leaders felt there was at least a slightly positive impact on all the specified business sectors. Average scores ranged from 2.1 - 2.4 indicating the programs' impact was viewed positively. Nearly 75 percent of the respondents felt that convenience stores had been positively impacted with 25 percent of the respondents indicating a substantial positive effect. Sixty-six percent felt that 'restaurants and motels' and 'sporting goods/supplies' had been positively impacted. The local leaders' responses are consistent with landowners' responses.

Table 33. Overall Distribution of the Perceptions of the Effects of the Conservation Reserve Program on Recreational Businesses in North Dakota, Local Leaders

Business Category	Study Group Average Score[a]		Distribution of Local Leader Responses				
			Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative
	Local Leader	Contract Holder	% of respondents				
Restaurants & motels	2.3	2.2	17.9	48.2	21.4	10.7	1.8
(n)	(57)	(957)					
Sporting goods/supplies	2.3	2.2	11.3	54.7	30.2	1.9	1.9
(n)	(57)	(947)					
Taxidermy/game processing	2.4	2.3	6.0	54.0	38.0	0.0	2.0
(n)	(57)	(940)					
Convenience stores	2.1	2.1	25.4	49.1	18.2	5.5	1.8
(n)	(57)	(932)					
Guide services/outfitters	2.3	2.4	21.7	32.6	43.5	0.0	2.2
(n)	(56)	(934)					

[a] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Other Comments

Like the landowner survey, leaders were given the opportunity to comment on other issues not addressed in the survey. While the most frequent write-in comment for landowners indicated general support for the program (16.3 percent), local leaders' most frequent comment was critical of the amount and type of land enrolled in the program, many specifically mentioning enrollment criteria. The next most frequent comments (both 12.9 percent) dealt with weed control and the negative effect of the CRP on local businesses, both issues that were identified frequently in the landowner survey write-in comments. Nearly 10 percent of the leaders commented that some haying of land enrolled in the CRP should be allowed. The same number said the program competes with farmers for land and hurts young farmers. The remaining comments were cited by only one or two respondents and are detailed in Appendix Table 45.

CONCLUSIONS

Leadership Interviews

Generally, more similarities exist between the multi-county groups than differences. Leaders in all groups identified farm consolidation, population losses, and the resulting impacts on the local economy as the most significant socioeconomic changes in their communities in recent years. Declining populations exerted negative pressure not only on retail sectors, but on farm supply and marketing firms, as well as public services, such as schools, hospitals, and other essential services (e.g., volunteer fire department). However, regions that have some off-farm employment opportunities, such as Ransom and Sargent Counties in the southeast and Kidder, Logan, and Stutsman Counties in central North Dakota, seem to have fared slightly better. Out-migration has not been as severe, and off-farm income has enabled some farm operators to stay in business and, therefore, stay on the farm and in the community. In areas with less off-farm income potential, many farm families have been forced to leave in search of employment opportunities elsewhere. Examples include Burke and Divide Counties in the northwest and Adams, Bowman, and Hettinger Counties in the southwest.

Both positive and negative impacts were attributed to the CRP in all county groups. Positive impacts that were most frequently mentioned fall into three basic categories: (1) landowner benefits, (2) environmental benefits and subsequent wildlife and recreational benefits, and (3) providing a reserve feed source for livestock operators. Leaders in all county groups consistently cited landowner benefits such as income stability and the ability to remove marginal land from production. Wildlife and recreational benefits were also mentioned in all county groups, with some variability depending on the local landscape. For example, upland game populations are more prevalent in the southwest, waterfowl are more plentiful in central North Dakota, and big game (deer) populations thrive in the northwest. Wildlife benefits were more pronounced in central and southwestern counties where thriving wildlife populations and the subsequent hunting opportunities have spawned a substantial, albeit seasonal, boost to the local economies. Increased recreational activities were also reported in eastern counties; however, the local effect is less pronounced as many of the hunters are on day trips from larger nearby cities. The ability to hay or graze land enrolled in the CRP in an emergency was also seen as a positive

impact in all county groups. However, as will be discussed later, emergency haying and/or grazing was not perceived as a benefit in all cases.

Leaders in each area consistently mentioned the impact on the farm supply and service sector. Less land farmed means fewer inputs to production and a smaller crop to be marketed to local elevators. The decline in the farm service and supply sector was hardest on smaller communities where often few other businesses remain. Any contraction in those sectors is especially evident. The CRP was also cited as a major cause of depopulation, either in terms of facilitating retirement and/or reducing the availability of land for young farmers. Again, these concerns seemed to be expressed more emphatically in communities with few off-farm employment opportunities or little trade and service structure to retain retirees. Problems with noxious weeds were also mentioned in all study groups. There appears to be no cost-effective control method, and many landowners are concerned that infested CRP tracts will become seed beds infesting adjacent land.

Some effects of the CRP elicited very strong differences of opinion; in particular, landowner property rights versus public hunting access and emergency haying and grazing. Some local leaders believe that because the land is rented by the federal government, the land should be open for public access. Naturally, landowners desire the ability to *control access* to their property. Emergency haying and grazing fell along similar lines. The provision has at times helped some stockmen through difficult times; however, some leaders thought the provision hurt other landowners, especially those that sell hay as a business.

Leaders' overall evaluation of the CRP was mixed. Leaders who generally felt that the CRP has benefitted their area commented that many of the recent trends, specifically farm consolidation, depopulation, and the general decline of the local economy were not solely a function of the CRP. They believe that those changes would have occurred with or without the CRP. Further, they believe that the program had in fact helped some producers keep their farm and helped others ease the transition out of farming or to retirement. Leaders that viewed the program positively also cited wildlife and recreational benefits and noted the subsequent economic benefits to nonagricultural sectors of the local economy.

Leaders that viewed the program negatively consistently cited the impact the program has had on the farm supply and service sector and generally blame the program for farm consolidation, depopulation, and the general demise of the rural economy. As mentioned earlier, leaders from study areas without off-farm employment opportunities seem to be more emphatic on this point.

Leaders' occupations also seemed to have some bearing on their perceptions. Those leaders involved in the farm supply or marketing sector seem to have stronger feelings regarding the role of the CRP and recent socioeconomic trends. While they do acknowledge some positive benefits of the program, like increased wildlife populations, they believe the CRP has played a substantial role in recent trends and generally view the program negatively. Those leaders in the financial sector, such as bankers and other agricultural lenders, tended to identify both positive and negative effects. They often commented that while the program did in some cases ease the transition out of farming or to retirement, the program also made it possible for some operators to stay in business. They also see the positive economic benefits to nonagricultural sectors

resulting from increased wildlife populations and hunting opportunities. And finally, those that viewed the program positively largely focused on benefits to the farmer and environmental benefits.

There was a wide array of recommended changes to the program, although generally speaking, respondents were not advocating sweeping changes. Leaders in each group stated the importance of targeting enrollment to erodible land to ensure that the program does not retire tillable productive land. Enhanced wildlife benefits and public access were also often mentioned as areas of concern, and there were a variety of suggestions that advocated options for opening CRP land for public hunting. Many leaders in each group, particularly those that were farmers and ranchers, suggested modifications to enrollment procedures and raised concerns regarding weed control. Individuals concerned about farm consolidation and the downturn in the supply and service sectors were concerned that the program not take tillable land out of production.

In conclusion, leaders were fairly evenly split on their overall evaluation of the program. They offered insights on positive and negative aspects of the program, some of which were viewed more or less strongly depending on the study area. It is also clear that the program at times elicits strong differences of opinion on the impact that it has had on rural communities. Most leaders' views seemed to be based on their own personal experience with the program. And while there were numerous suggestions that covered nearly every aspect of the program, there were very few leaders that advocated eliminating the program.

Landowner Survey

The landowner survey provided baseline characteristics of participating landowners, their motivations for enrollment, and their perceptions of the impact of the program. Following are some key observations and conclusions drawn from the landowner survey.

Contract holder's age is consistent with recent demographic trends reporting an aging rural population. Respondents were slightly younger in the eastern counties where recent socioeconomic trends have been less pronounced than in some of the western counties. Respondents were also longtime residents whose occupations are predominately farming/ranching. Most respondents are North Dakota residents, and a majority live in the survey county, thus casting some doubts on theories expressed by local leaders that monies from CRP contracts are not spent in the local area.

Average respondent enrollment was 283 acres. The most common enrollment size was less than 150 acres. Nonresidents enrolled on average fewer acres (235 acres) and were even more likely to have less land (55 percent enrolled less than 150 acres) enrolled.

No single factor emerged as the primary motivation for enrolling land in the CRP. While the most common motivation for enrolling land in the CRP was economic in nature, soil quality issues were also a key factor when enrolling land in the CRP. The only clear consensus was that increasing hunting opportunities was *not* a factor. Only 2 percent said the reason for enrolling land in the program was to increase hunting opportunities. Among county groups, reasons for enrollment varied slightly; however, the most often cited motivations in all groups were

economic considerations ('economically attractive' and 'stabilize income and reduce income risk') and issues related to soil quality and erosion.

While a majority of the respondents have farmed at some point in time, only 22 percent of respondents are currently farming full time. Taking marginal/uneconomical land out of production and providing a more stable income were the CRP benefits most important to farm viability. As was the case with factors motivating participants to enroll land in the CRP, wildlife and recreational benefits (hunting and hunting revenue) were largely irrelevant in terms of farm viability. Over 90 percent of respondents said supplementing income with hunting revenue was unimportant. While all study groups agreed that hunting revenue was unimportant, respondents in Adams, Bowman, and Hettinger Counties responded relatively less negatively than the other groups and significantly different than respondents in Sargent and Ransom Counties. This would suggest that, while wildlife/recreational benefits are still relatively unimportant to landowners and farm viability, areas of the state that have seen substantial growth in wildlife populations and hunter participation may be recognizing some economic benefits as a result.

The CRP largely has not impacted farming operations, nor have farmers substantively changed their management practices since enrolling land in the CRP. While some respondents have taken measures to support wildlife populations, the 'adoption of minimum till practices' and 'retention of grass in drainage areas' were the only practices adopted by a majority of the respondents since enrolling land in the CRP. While some respondents (40 percent) indicated the CRP helped the transition to retirement and helped to transfer farm operations to the next generation, most respondents (60 percent) indicated that the CRP did not affect those issues, nor was the CRP a factor in selling the farm operation or expanding the farm operation. Further, most respondents indicated that the CRP did not affect the transfer of property either to the next generation (65 percent) or to an unrelated buyer (78 percent). While this would support contentions made by local leaders that the CRP had helped ease the transition to retirement for some operators, it also cast some doubt on assertions that the CRP has facilitated wide-scale retirements or transfer of ownership.

Almost one-half of the respondents indicated that CRP payments were largely the same as cash rent rates, with remaining respondents evenly split between indicating that the CRP payments were higher or lower than cash rental rates. While it was often reported during leadership interviews that the CRP drove up cash rents or at minimum set a price floor, nearly 70 percent of the landowner respondents indicated the CRP had not impacted cash rents. While 33 percent did indicate that the CRP had increased cash rents, these responses would suggest that the perception of the CRP inflating rental rates may not be accurate.

Landowners echoed the responses of local leaders regarding the impact of the CRP on related agribusiness service sectors. Less than 20 percent felt that the CRP had a positive impact on any of the agribusiness sectors listed. The general consensus was that the CRP has negatively impacted machinery and equipment dealers, elevator and grain handing facilities, and general farm supply stores.

Variability among landowner attitudes toward the CRP is consistent with views expressed in the leadership interviews. This further illustrates that with the exception of a few

key points, opinions on the CRP vary considerably depending on the issue and the region of the state. Landowners voiced strong agreement (average scores of at least 4.0) that the CRP is a 'cost-effective way to idle cropland,' 'is an effective way to stop soil erosion,' and 'CRP benefits farmers and sportsmen' with no significant differences between county groups. On the following issues respondents slightly agreed (average scores ranging from 3.0 - 3.7) with no significant differences between study groups: 'crop prices would be lower without CRP,' 'more land should be placed into the CRP,' 'CRP has had an overall positive effect on the state economy,' and 'CRP contract holders should have the right to use land for fee and lease hunting.'

On several issues there were statistically significant differences between study groups. McHenry, Pierce, and Sheridan County respondents more strongly agreed that 'CRP enrollment criteria should focus on farmland characteristics, not wildlife habitat values' than respondents in Ransom and Sargent Counties. Respondents' opinions in Adams, Bowman, and Hettinger Counties differed significantly from at least one other multi-county study group on five issues: Respondents in Adams, Bowman, and Hettinger Counties slightly disagreed that 'CRP has been instrumental in keeping me on the farm,' while respondents in Burke and Divide Counties slightly agreed with the statement. Further, respondent perspectives in Adams, Bowman, and Hettinger Counties differed significantly from respondents in Eddy, Griggs, and Nelson Counties on three issues: (1) 'CRP has had an overall positive effect on local economies,' (2) 'CRP has helped reduce flooding by controlling water runoff,' and (3) 'CRP has improved water quality in adjacent bodies of water.' In all three cases, respondents in Adams, Bowman, and Hettinger Counties more strongly agreed with the statements than did respondents in Eddy, Griggs, and Nelson Counties.

Finally, while all county groups slightly agreed that 'CRP is facilitating the spread of fee and lease hunting,' respondents in Adams, Bowman, and Hettinger Counties, Kidder, Logan, and Stutsman Counties, and Ransom and Sargent Counties felt significantly stronger than respondents in Burke and Divide Counties, Eddy, Griggs, and Nelson Counties, and McHenry, Pierce, and Sheridan Counties. Exactly what motivated these differences in respondent perceptions was beyond the scope of this study.

Most survey respondents believe that the CRP has led to population growth of most wildlife species, hunting activity, and both the number of hunters and the amount of time spent hunting. Change in wildlife populations varied somewhat by area. For example, respondents in the central part of the state reported more growth in waterfowl populations, respondents in the southwest reported growing upland game populations, and big game population growth was more prevalent in the northwestern part of the state. Landowner responses are consistent with the view of local leaders; and while the CRP undoubtedly has impacted wildlife populations, the recent wet weather cycle has likely influenced game populations, especially in the central 'prairie pothole' region, as well. It was not within the scope of this study to identify or quantify respondents' perceptions of other factors that may have influenced wildlife populations.

Respondents generally agreed that select local nonagricultural businesses that support hunting and recreational activities had been positively impacted by the CRP. Landowner responses were consistent with the opinions of local leaders.

While 45 percent of landowner respondents felt that the amount of land posted "no hunting" had increased since the CRP began, 90 percent of the respondents indicated that their own position regarding posting had not changed. These numbers seem to suggest that respondents believe other landowners are posting more land while their own posting practices have remained unchanged. Of those changing their posting practices, 61 percent said they now post more of their land than before the CRP.

While the North Dakota Game and Fish Department has initiated a cost-sharing program to encourage landowners to allow unlimited walk-in hunting access, only 18 percent of the respondents indicated they were participating in the program and over 50 percent of the respondents indicated they were unaware of the program. Other reasons for not participating in the PLOTS program were 'economic incentive was insufficient' and 'CRP cover was already established.'

Landowners' preferred land use upon contract expiration was to re-enroll land in the CRP program. Even of those landowners that felt that cash rents were higher than CRP payments, 83 percent would re-enroll at least some land. This would strongly suggest that factors other than contract rental rates motivate landowners to participate in the program.

Leadership Survey

Because the leadership survey was not distributed to a random selection of leaders, and both official and unofficial community leaders were included, it is difficult to draw any definitive conclusions based on their responses. However, a relative comparison of local leader and landowner perceptions is a useful exercise.

Local leaders were on average considerably younger than the landowners, although the leaders were also longtime residents of the county. Local leaders' primary occupations were public service and banking and/or insurance.

Local decision makers agreed with landowners on several issues. Both groups felt that the CRP had reduced the amount of land available for rent and that cash rents had increased as a result of the CRP. Local decision makers also agreed that agribusiness sectors had been negatively impacted by the CRP; however, the decision makers felt relatively stronger than landowners. It is worth noting that many of the leaders' occupations are in the agribusiness supply and service sector. Personal experience and the impact of recent trends on their own livelihood may have influenced their opinions.

Leaders' perspectives were also apparent when queried about their attitudes toward the CRP. Leaders disagreed with landowners on several issues: 'enrolling more land in the program,' 'the overall effect of the program on local and state economies,' and 'fee and lease hunting.' Landowners generally agreed with statements on those issues and leaders generally disagreed. Again, considering leaders' occupations and the consensus that the CRP has negatively impacted agricultural business sectors, these differences are not implausible.

There was widespread agreement among all leaders that the CRP had positively impacted wildlife populations and hunter activity. They also agreed that the economic activity generated

by recreational activities had positively impacted related nonagricultural sectors. Landowner opinions were consistent with local leaders in these issues.

Summary

The purpose of this study was to establish baseline perceptions of the socioeconomic impacts of the Conservation Reserve Program in North Dakota. A few key themes emerged. Despite some problems and/or unintended consequences of the program, the program remains very popular in North Dakota; and assuming no major program changes, participation levels will likely remain high. While some issues related to the program can elicit strong differences of opinion, there appears to be a general consensus on environmental, wildlife, and recreational benefits. Opinions on the state and local economic impacts of the program are more variable, ranging from very positive to very negative. Many feel that the CRP is responsible for rural North Dakota depopulation and the general decline of the farm and rural economy. However, even if the program were eliminated, not all the land currently enrolled would be returned to production, and it is not likely the state of the rural economy would revert to pre-CRP conditions. Like most programs, perceptions of impacts are based largely on each individual's circumstance and personal experience, thus providing some insight to the wide range of opinions on the subject.

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APPENDIX A – APPENDIX TABLES

Appendix Table 1. Occupation and Employment Status of Respondents, Landowners

Characteristic	Overall	Multi-County Groups: Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	% of respondents						
Occupation							
Farmer/rancher	58.7	63.8	60.6	51.6	57.7	60.0	62.1
Public service	4.7	3.9	6.4	4.8	2.4	6.4	5.0
Management	4.1	5.5	2.8	2.7	5.9	4.8	3.1
Education	4.0	3.9	3.7	5.8	4.8	3.2	1.9
General Labor	4.0	0.0	1.8	3.2	5.4	8.0	5.0
Construction	3.8	1.5	4.6	5.9	3.0	2.4	4.4
Sales	2.9	6.3	1.8	2.1	1.8	2.4	3.1
Banking/Insurance	2.7	0.8	3.7	5.3	3.6	0.8	1.2
Medical	2.1	3.2	1.8	1.6	4.2	0.0	1.2
Secretarial/clerical	1.7	2.4	0.9	2.1	1.8	2.4	0.6
Machinist/welder	1.3	0.0	2.7	1.1	1.8	0.0	1.8
Accounting	1.1	1.6	0.0	1.6	0.6	0.8	1.9
Mechanic/automotive	1.1	0.8	0.0	2.1	1.1	1.6	0.6
Engineer	1.0	0.8	0.0	3.2	0.0	1.6	0.0
Other[a]	6.8	5.5	9.2	6.9	5.9	5.6	8.1
Employment Status							
Self-employed	39.8	38.7	39.4	35.5	38.4	42.4	45.7
Retired	37.5	43.7	39.3	33.5	43.9	31.7	33.2
Employed by someone else	21.4	15.5	19.7	30.5	17.2	23.0	20.0
Unemployed	1.1	2.1	1.6	0.5	0.0	2.2	1.1
Going to school	0.2	0.0	0.0	0.0	0.5	0.7	0.0

[a] Most frequent occupations listed were housewife/homemaker (2.1%), trucking/transportation (1.3%), and attorney/legal work (0.3%).

Appendix Table 2. Reasons for Enrolling in the CRP by Demographic Characteristics

Characteristic	Economically Attractive/ Stabilize Income	Improve Soil Fertility/ Reduce Erosion	Increase Hunting Opportunities	Reduce Labor/Farm Inputs	Retirement/ Career Change
	----------% of respondents----------				
Age					
1 - 35	2.7	4.4	0	0	0
35 - 50	27	15.9	20	12.8	12
51 - 65	38.3	34	40	40.4	24
over 65	32	45.8	40	46.8	64.1
(n)	-415	-227	-20	-47	-117
Occupation					
Farmer/ Rancher	55.6	61	17.6	68.9	65.4
All Other	44.4	39	82.4	31.1	34.6
(n)	-387	-205	-17	-45	-101
Acres Enrolled					
1 - 150	34.3	58.2	75	45.3	30.3
151 - 300	30.7	17.7	5	21.4	26.9
301 - 450	12.2	8.6	5	7.1	15.1
over 450	22.8	15.5	15	26.2	27.7
(n)	-417	-220	-20	-42	-119
Residency					
In Study County	57.9	58.4	33.3	70.2	69.7
Adjacent County	18.4	16.5	19.1	10.6	16.8
Elsewhere in ND	10.1	13.4	19	6.4	3.4
Out-of-State	13.6	11.7	28.6	12.8	10.1
(n)	-418	-231	-21	-47	-119

Appendix Table 3. Prior Crop History for Land Enrolled in the Conservation Reserve Program [a]

Crop	Overall	Multi-county Groups: Adams Bowman Hettinger	Burke Divide	Eddy Nelson Griggs	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	% of all crops						
Spring Wheat	48.2	68.7	38.0	41.3	45.5	55.7	36.0
Durum	11.9	10.9	42.5	8.1	9.3	5.8	1.2
Barley	10.9	5.8	8.2	18.2	10.7	11.3	10.3
Sunflower	10.5	3.9	2.1	19.4	12.5	7.6	14.4
Oats	6.0	4.9	4.3	3.9	8.4	11.5	2.6
Corn	4.5	1.2	0.0	2.3	2.9	1.5	21.4
Alfalfa	3.8	3.5	3.0	3.9	7.3	2.3	1.3
Soybeans	1.3	0.2	0.0	0.4	0.3	0.0	7.8
Dry Beans	0.7	0.0	0.0	0.9	0.2	0.0	3.8
Canola	0.4	0.4	0.0	0.7	0.5	0.3	0.2
Other	1.8	0.6	1.9	0.9	2.4	4.0	1.0

[a] Averages were estimated by multiplying percentage of crop grown on enrolled land by total enrolled acreage per respondent. Overall average was weighted by acreage of crops.

Appendix Table 4. Importance of Various Aspects of the Conservation Reserve Program in Keeping Farm Operations Viable, Adams, Bowman, and Hettinger Counties

CRP Benefit	Average Score[a]	Degree of Importance: Very Important	Somewhat Important	Neither	Somewhat Unimportant	Not Important
		% of respondents				
Help pay short-term debt (n=47)	3.1	19.6	15.2	28.2	10.9	26.1
Help pay long-term debt (n=48)	2.8	27.1	18.8	22.9	8.3	22.9
Provide income for family living expenses (n=46)	3.0	15.2	15.3	39.1	13.0	17.4
Offset income loss from other cropland (n=47)	3.1	19.2	21.3	21.2	8.5	29.8
Remove marginal crop land from production[b] (n=47)	1.9	53.2	23.4	10.6	10.7	2.1
Supplement income with hunting revenue[c] (n=46)	4.4	2.2	2.2	13.0	17.4	65.2
Provide more stable income than crop production (n=46)	2.5	34.0	27.7	14.9	4.3	19.1

[a] Based on a scale of 1 for very important to 5 for not important. Lower average numbers indicate a greater importance than higher average numbers.

[b] Significantly different than respondents in Burke and Divide Counties and Kidder, Logan, and Stutsman Counties, $\propto \pm > .05$.

[c] Significantly different than respondents in Ransom and Sargent Counties, $\propto \pm > .05$.

Appendix Table 5. Importance of Various Aspects of the Conservation Reserve Program in Keeping Farm Operations Viable, Burke and Divide Counties

CRP Benefit	Average Score[a]	Degree of Importance: Very Important	Somewhat Important	Neither	Somewhat Unimportant	Not Important
		% of respondents				
Help pay short-term debt (n=47)	3.1	21.3	10.6	31.9	10.7	25.5
Help pay long-term debt (n=47)	2.9	29.8	10.6	21.3	12.8	25.5
Provide income for family living expenses (n=47)	3.0	21.3	14.9	23.4	19.1	21.3
Offset income loss from other cropland (n=47)	3.1	23.4	17.0	19.2	8.5	31.9
Remove marginal crop land from production[b] (n=47)	2.7	24.5	16.3	30.6	22.5	6.1
Supplement income with hunting revenue (n=43)	4.5	7.0	2.3	2.3	9.3	79.1
Provide more stable income than crop production (n=47)	2.5	31.3	20.8	29.2	4.2	14.5

[a] Based on a scale of 1 for very important to 5 for not important. Lower average numbers indicate a greater importance than higher average numbers.

[b] Significantly different than respondents in Adams, Bowman, and Hettinger Counties, $\propto \pm > .05$.

Appendix Table 6. Importance of Various Aspects of the Conservation Reserve Program in Keeping Farm Operations Viable, Eddy, Griggs, and Nelson Counties

CRP Benefit	Average Score[a]	Degree of Importance: Very Important	Somewhat Important	Neither	Somewhat Unimportant	Not Important
		% of respondents				
Help pay short-term debt (n=63)	2.8	27.0	17.5	22.2	19.0	14.3
Help pay long-term debt (n=63)	2.9	22.2	22.3	20.6	12.7	22.2
Provide income for family living expenses (n=64)	3.2	12.5	21.9	23.4	20.3	21.9
Offset income loss from other cropland (n=65)	3.1	13.9	20.0	27.7	20.0	18.4
Remove marginal crop land from production (n=65)	2.1	49.2	18.5	9.2	16.9	6.2
Supplement income with hunting revenue (n=62)	4.7	3.2	0.0	1.6	11.3	83.9
Provide more stable income than crop production (n=65)	2.0	35.4	43.1	10.8	7.6	3.1

[a] Based on a scale of 1 for very important to 5 for not important. Lower average numbers indicate a greater importance than higher average numbers.

Appendix Table 7. Importance of Various Aspects of the Conservation Reserve Program in Keeping Farm Operations Viable, Kidder, Logan, and Stutsman Counties

CRP Benefit	Average Score[a]	Degree of Importance: Very Important	Somewhat Important	Neither	Somewhat Unimportant	Not Important
		% of respondents				
Help pay short-term debt (n=51)	3.3	15.7	13.7	25.5	17.7	27.4
Help pay long-term debt (n=52)	3.4	15.4	7.7	28.9	19.2	28.8
Provide income for family living expenses (n=52)	3.1	17.3	25.0	17.3	13.5	26.9
Offset income loss from other cropland (n=51)	3.3	9.8	19.6	33.3	9.8	27.5
Remove marginal crop land from production [b] (n=54)	2.7	25.9	24.1	20.4	16.6	13.0
Supplement income with hunting revenue (n=51)	4.7	5.9	0.0	0.0	9.8	84.3
Provide more stable income than crop production (n=55)	2.4	38.2	20.0	16.4	14.5	10.9

[a] Based on a scale of 1 for very important to 5 for not important. Lower average numbers indicate a greater importance than higher average numbers.

[b] Significantly different than respondents in Adams, Bowman, and Hettinger Counties, $\propto \pm > .05$.

Appendix Table 8. Importance of Various Aspects of the Conservation Reserve Program in Keeping Farm Operations Viable, McHenry, Pierce, and Sheridan Counties

CRP Benefit	Average Score[a]	Degree of Importance: Very Important	Somewhat Important	Neither	Somewhat Unimportant	Not Important
		% of respondents				
Help pay short-term debt (n=56)	3.5	10.7	10.7	26.8	23.2	28.6
Help pay long-term debt (n=54)	3.4	14.8	14.8	18.5	20.4	31.5
Provide income for family living expenses (n=57)	3.3	15.8	14.0	28.1	12.3	29.8
Offset income loss from other cropland (n=57)	3.5	10.5	15.8	22.8	17.5	33.3
Remove marginal crop land from production (n=59)	2.3	33.9	25.4	23.7	8.5	8.5
Supplement income with hunting revenue (n=56)	4.7	3.6	0.0	5.4	8.9	82.1
Provide more stable income than crop production (n=57)	2.5	33.3	22.8	19.3	8.8	15.8

[a] Based on a scale of 1 for very important to 5 for not important. Lower average numbers indicate a greater importance than higher average numbers.

Appendix Table 9. Importance of Various Aspects of the Conservation Reserve Program in Keeping Farm Operations Viable, Ransom and Sargent Counties

CRP Benefit	Average Score[a]	Degree of Importance: Very Important	Somewhat Important	Neither	Somewhat Unimportant	Not Important
		% of respondents				
Help pay short-term debt (n=67)	3.4	8.9	17.9	26.9	17.9	28.4
Help pay long-term debt (n=67)	3.0	17.9	19.4	26.9	11.9	23.9
Provide income for family living expenses (n=66)	3.5	10.6	9.1	31.8	19.7	28.8
Offset income loss from other cropland (n=67)	3.3	6.0	26.9	23.9	20.9	22.3
Remove marginal crop land from production (n=68)	2.5	25.0	35.3	19.1	5.9	14.7
Supplement income with hunting revenue[b] (n=66)	4.9	0.0	1.5	0.0	4.6	93.9
Provide more stable income than crop production (n=68)	2.7	20.6	27.9	29.4	7.4	14.7

[a] Based on a scale of 1 for very important to 5 for not important. Lower average numbers indicate a greater importance than higher average numbers.

[b] Significantly different than respondents in Adams, Bowman, and Hettinger Counties, $\propto \pm > .05$.

Appendix Table 10. Influence of the Conservation Reserve Program on Farm Operations, Adams, Bowman, and Hettinger Counties

Farm Activities	Increase	No Effect	Decrease
	---------- % of respondents ----------		
Level of Farm Inputs			
Change the amount of hired labor	0.0	78.3	21.7
Change the amount of family or operator labor	2.2	60.9	36.9
Change the amount of machinery/equipment	0.0	65.2	34.8

Conservation and Wildlife Practices Adopted Since Enrolling in CRP	Yes	No
Crops sensitive to wildlife depredation not planted/stored near CRP tracts	6.8	93.2
Retain grass in drainage areas prone to erosion	71.1	28.9
Use no-till practices	40.9	59.1
Use minimum tillage practices	74.4	25.6
Plant food plots next to CRP tracts	34.8	65.2
Feed wildlife during winter	71.1	28.9
Delay first cutting of hay until after nesting	27.3	72.7
Delay/cancel tillage on fields next to CRP to allow for feeding by wildlife	17.4	82.6
Plant trees/create other habitat with own resources	37.2	62.8
Strategic and Planning Issues		
Help transfer farm operation to the next generation	26.5	73.5
Help the transition to retirement	31.3	68.7
Reduced my income risk	73.5	26.5
Made land easier to sell/increased value of land	23.4	76.6
Help to expand farm operation	29.2	70.8

Appendix Table 11. Influence of the Conservation Reserve Program on Farm Operations, Burke and Divide Counties

Farm Activities	Increase	No Effect	Decrease
	---------- % of respondents ----------		
Level of Farm Inputs			
Change the amount of hired labor	0.0	74.0	26.0
Change the amount of family or operator labor	0.0	56.9	43.1
Change the amount of machinery/equipment	0.0	62.0	38.0

Conservation and Wildlife Practices Adopted Since Enrolling in CRP	Yes	No
Crops sensitive to wildlife depredation not planted/stored near CRP tracts	8.9	91.1
Retain grass in drainage areas prone to erosion	69.4	30.6
Use no-till practices	39.6	60.4
Use minimum tillage practices	68.1	31.9
Plant food plots next to CRP tracts	21.3	78.7
Feed wildlife during winter	63.8	36.2
Delay first cutting of hay until after nesting	46.8	53.2
Delay/cancel tillage on fields next to CRP to allow for feeding by wildlife	16.7	83.3
Plant trees/create other habitat with own resources	43.8	56.2
Strategic and Planning Issues		
Help transfer farm operation to the next generation	36.0	64.0
Help the transition to retirement	28.0	72.0
Reduced my income risk	65.4	34.6
Made land easier to sell/increased value of land	14.0	86.0
Help to expand farm operation	8.2	91.8

Appendix Table 12. Influence of the Conservation Reserve Program on Farm Operations, Eddy, Griggs, and Nelson Counties

Farm Activities	Increase	No Effect	Decrease
	% of respondents		
Level of Farm Inputs			
Change the amount of hired labor	0.0	66.2	33.8
Change the amount of family or operator labor	0.0	56.9	43.1
Change the amount of machinery/equipment	1.5	67.7	30.8
Conservation and Wildlife Practices Adopted Since Enrolling in CRP		Yes	No
Crops sensitive to wildlife depredation not planted/stored near CRP tracts		21.5	78.5
Retain grass in drainage areas prone to erosion		50.0	50.0
Use no-till practices		12.1	87.9
Use minimum tillage practices		51.5	48.5
Plant food plots next to CRP tracts		20.0	80.0
Feed wildlife during winter		36.4	63.6
Delay first cutting of hay until after nesting		30.3	69.7
Delay/cancel tillage on fields next to CRP to allow for feeding by wildlife		13.9	86.1
Plant trees/create other habitat with own resources		31.8	67.2
Strategic and Planning Issues			
Help transfer farm operation to the next generation		33.7	66.3
Help the transition to retirement		39.2	60.8
Reduced my income risk		76.3	23.7
Made land easier to sell/increased value of land		19.2	80.8
Help to expand farm operation		21.8	78.2

Appendix Table 13. Influence of the Conservation Reserve Program on Farm Operations, Kidder, Logan, and Stutsman Counties

Farm Activities	Increase	No Effect	Decrease
	% of respondents		
Level of Farm Inputs			
Change the amount of hired labor	1.8	80.4	17.8
Change the amount of family or operator labor	0.0	52.6	47.4
Change the amount of machinery/equipment	5.1	57.6	37.3
Conservation and Wildlife Practices Adopted Since Enrolling in CRP	Yes	No	
Crops sensitive to wildlife depredation not planted/stored near CRP tracts	24.5	75.5	
Retain grass in drainage areas prone to erosion	49.1	50.9	
Use no-till practices	20.7	79.3	
Use minimum tillage practices	46.4	53.6	
Plant food plots next to CRP tracts	7.1	92.9	
Feed wildlife during winter	38.6	61.4	
Delay first cutting of hay until after nesting	32.1	67.9	
Delay/cancel tillage on fields next to CRP to allow for feeding by wildlife	16.4	83.6	
Plant trees/create other habitat with own resources	12.5	87.5	
Strategic and Planning Issues			
Help transfer farm operation to the next generation	43.8	56.2	
Help the transition to retirement	51.2	48.8	
Reduced my income risk	71.3	28.7	
Made land easier to sell/increased value of land	23.3	76.7	
Help to expand farm operation	14.9	85.1	

Appendix Table 14. Influence of the Conservation Reserve Program on Farm Operations, McHenry, Pierce, and Sheridan Counties

Farm Activities	Increase	No Effect	Decrease
	---------- % of respondents ----------		
Level of Farm Inputs			
Change the amount of hired labor	1.6	86.9	11.5
Change the amount of family or operator labor	3.3	57.4	39.3
Change the amount of machinery/equipment	3.3	66.7	30.0
Conservation and Wildlife Practices Adopted Since Enrolling in CRP	Yes	No	
Crops sensitive to wildlife depredation not planted/stored near CRP tracts	15.3	84.7	
Retain grass in drainage areas prone to erosion	57.4	42.6	
Use no-till practices	21.7	78.3	
Use minimum tillage practices	49.2	50.8	
Plant food plots next to CRP tracts	11.7	88.3	
Feed wildlife during winter	33.3	66.7	
Delay first cutting of hay until after nesting	34.5	65.5	
Delay/cancel tillage on fields next to CRP to allow for feeding by wildlife	11.9	88.1	
Plant trees/create other habitat with own resources	28.8	71.2	
Strategic and Planning Issues			
Help transfer farm operation to the next generation	28.6	71.4	
Help the transition to retirement	40.0	60.0	
Reduced my income risk	70.8	29.2	
Made land easier to sell/increased value of land	20.0	80.0	
Help to expand farm operation	15.4	84.6	

Appendix Table 15. Influence of the Conservation Reserve Program on Farm Operations, Ransom and Sargent Counties

Farm Activities	Increase	No Effect	Decrease
	---------- % of respondents ----------		
Level of Farm Inputs			
Change the amount of hired labor	1.5	73.9	24.6
Change the amount of family or operator labor	2.9	60.9	36.2
Change the amount of machinery/equipment	1.4	69.6	29.0

Conservation and Wildlife Practices Adopted Since Enrolling in CRP	Yes	No
Crops sensitive to wildlife depredation not planted/stored near CRP tracts	20.3	79.7
Retain grass in drainage areas prone to erosion	42.7	57.3
Use no-till practices	28.4	71.6
Use minimum tillage practices	67.6	32.4
Plant food plots next to CRP tracts	33.3	66.7
Feed wildlife during winter	44.9	55.1
Delay first cutting of hay until after nesting	39.7	60.3
Delay/cancel tillage on fields next to CRP to allow for feeding by wildlife	17.7	82.3
Plant trees/create other habitat with own resources	39.4	60.6
Strategic and Planning Issues		
Help transfer farm operation to the next generation	35.4	64.6
Help the transition to retirement	40.7	59.3
Reduced my income risk	71.3	28.7
Made land easier to sell/increased value of land	28.2	71.8
Help to expand farm operation	17.7	82.3

Appendix Table 16. Perceptions of the Effects of the Conservation Reserve Program on Agricultural Businesses in North Dakota, Landowners, Adams, Bowman, and Hettinger Counties

Business Type	Average Score[a,b]	Distribution of Responses [a] Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		% of respondents					
Machinery and equipment dealers	3.7	7.3	10.4	14.6	40.6	27.1	27.8
(n=133)	(96)						(37)
Elevators and grain handling facilities	3.6	7.5	8.5	23.4	40.4	20.2	29.3
(n=133)	(94)						(39)
Custom operators	3.5	5.6	14.6	22.5	37.1	20.2	30.5
(n=128)	(89)						(39)
General farm supply	3.7	4.2	12.8	14.9	44.7	23.4	28.2
(n=131)	(84)						(47)
Agricultural lenders	3.2	3.6	22.9	30.1	32.5	10.8	36.1
(n=130)	(83)						(47)

[a] Respondents that indicated 'do not know' were excluded from the distribution of responses and average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Appendix Table 17. Perceptions of the Effects of the Conservation Reserve Program on Agricultural Businesses in North Dakota, Landowners, Burke and Divide Counties

Business Type	Average Score[a,b]	Distribution of Responses [a] Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		% of respondents					
Machinery and equipment dealers	3.6	6.1	14.3	18.4	35.7	25.5	18.3
(n=120)	(83)						(37)
Elevators and grain handling facilities	3.6	3.2	12.9	22.6	44.1	17.2	21.2
(n=118)	(80)						(37)
Custom operators	3.5	3.3	15.6	25.6	42.2	13.3	23.1
(n=117)	(80)						(37)
General farm supply	3.7	3.4	10.3	20.7	47.1	18.4	23.7
(n=114)	(77)						(37)
Agricultural lenders	3.1	6.4	15.4	47.4	25.6	5.2	32.2
(n=115)	(78)						(37)

[a] Respondents that indicated 'do not know' were excluded from the distribution of responses and average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Appendix Table 18. Perceptions of the Effects of the Conservation Reserve Program on Agricultural Businesses in North Dakota, Landowners, Eddy, Griggs, and Nelson Counties

Business Type	Average Score[a,b]	Distribution of Responses[a] Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		% of respondents					
Machinery and equipment dealers[c]	3.9	10.3	7.1	7.7	32.6	42.3	19.6
(n=194)	(156)						(38)
Elevators and grain handling facilities[c]	4.0	8.8	7.6	7.0	27.9	48.7	18.7
(n=194)	(158)						(36)
Custom operators	3.5	5.5	18.5	17.1	33.6	25.3	22.3
(n=188)	(146)						(42)
General farm supply[d]	3.9	6.5	9.8	9.2	35.3	39.2	19.5
(n=190)	(153)						(37)
Agricultural lenders	3.2	8.7	23.9	25.4	24.6	17.4	28.1
(n=192)	(138)						(54)

[a] Respondents that indicated 'do not know' were excluded from the distribution of responses and average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.
[c] Statistically different than Kidder, Logan, and Stutsman Counties, ∝±>.05.
[d] Statistically different than McHenry, Pierce, and Sheridan Counties and Kidder, Logan, and Stutsman Counties, ∝±>.05.

Appendix Table 19. Perceptions of the Effects of the Conservation Reserve Program on Agricultural Businesses in North Dakota, Landowners, Kidder, Logan, and Stutsman Counties

Business Type	Average Score[a,b]	Distribution of Responses[a] Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		% of respondents					
Machinery and equipment dealers[c]	3.4	13.1	13.1	15.4	36.9	21.5	27.8
(n=180)	(130)						(50)
Elevators and grain handling facilities[c]	3.5	12.1	12.9	15.1	38.9	25.0	25.4
(n=177)	(132)						(45)
Custom operators	3.3	8.6	18.8	25.0	30.4	17.2	26.0
(n=173)	(128)						(45)
General farm supply[c]	3.4	9.3	15.5	17.8	35.7	21.7	25.9
(n=174)	(129)						(45)
Agricultural lenders	3.0	15.5	15.5	32.8	27.6	8.6	33.3
(n=174)	(116)						(58)

[a] Respondents that indicated 'do not know' were excluded from the distribution of responses and the average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.
[c] Statistically different than Eddy, Griggs, and Nelson Counties, ∝±>.05.

Appendix Table 20. Perceptions of the Effects of the Conservation Reserve Program on Agricultural Businesses in North Dakota, Landowners, McHenry, Pierce, and Sheridan Counties

Business Type	Average Score[a,b]	Distribution of Responses[a] Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		% of respondents					
Machinery and equipment dealers	3.4	11.5	15.9	16.8	30.1	25.7	16.9
(n=180)	(157)						(23)
Elevators and grain handling facilities	3.5	10.5	12.3	21.1	25.4	30.7	15.6
(n=180)	(159)						(21)
Custom operators	3.2	6.4	20.0	27.3	36.3	10.0	16.0
(n=180)	(159)						(21)
General farm supply[c]	3.5	8.9	16.1	17.0	36.6	21.4	15.2
(n=180)	(160)						(20)
Agricultural lenders	3.1	13.6	17.5	27.2	33.0	8.7	22.0
(n=180)	(151)						(29)

[a] Respondents that indicated 'do not know' were excluded from the distribution of responses and the average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.
[C] Statistically different than Eddy, Griggs, and Nelson Counties, ∝±>.05.

Appendix Table 21. Perceptions of the Effects of the Conservation Reserve Program on Agricultural Businesses in North Dakota, Landowners, Ransom and Sargent Counties

Business Type	Average Score[a,b]	Distribution of Responses[a] Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		% of respondents					
Machinery and equipment dealers	3.7	4.7	11.6	13.9	52.7	17.1	24.1
(n=170)	(129)						(41)
Elevators and grain handling facilities	3.7	4.6	11.5	16.9	38.5	28.5	23.5
(n=170)	(130)						(40)
Custom operators	3.3	3.1	21.3	26.0	37.8	11.8	24.4
(n=168)	(127)						(41)
General farm supply	3.7	3.8	10.5	18.8	46.6	20.3	22.7
(n=172)	(133)						(39)
Agricultural lenders	3.1	8.0	23.2	28.6	31.3	8.9	33.7
(n=169)	(112)						(57)

[a] Respondents that indicated 'do not know' were excluded from the distribution of responses and the average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Appendix Table 22. Responses to Various Statements Regarding Issues/Attitudes of the Conservation Reserve Program, Landowners, Adams, Bowman, and Hettinger Counties

Issue/ Attitude	Average Score [a]	Distribution of Responses: Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
		% of respondents				
CRP is a cost-effective program to idle cropland	4.0	3.0	4.6	16.7	38.6	37.1
(n)	(132)					
Crop prices would be lower without CRP	3.7	5.2	8.2	21.6	41.1	23.9
(n)	(134)					
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values	3.5	9.6	15.6	13.3	33.3	28.2
(n)	(135)					
More land should be put into CRP	3.6	3.7	13.2	30.9	27.9	24.3
(n)	(136)					
CRP has been instrumental in keeping me on the farm	2.8	20.9	10.1	46.5	13.2	9.3
(n)	(129)					
CRP benefits farmers and sportsmen	4.3	2.2	0.0	8.8	43.8	45.2
(n)	(137)					
CRP has had an overall positive effect on local economies	3.2	10.3	19.1	31.6	15.5	23.5
(n)	(136)					
CRP has had an overall positive effect on the state economy	3.4	8.1	14.0	32.4	22.0	23.5
(n)	(136)					
CRP has helped stop soil erosion on marginal cropland	4.5	2.9	1.5	3.6	24.6	67.4
(n)	(138)					
CRP has helped reduce flooding by controlling water runoff	4.2	0.7	2.2	21.9	29.9	45.3
(n)	(137)					
CRP contract holders should have the right to use that land for fee and lease hunting	3.7	15.9	5.8	15.9	21.0	41.3
(n)	(138)					
CRP is facilitating the spread of fee and lease hunting	3.7	5.9	8.8	23.5	36.8	25.0
(n)	(136)					
CRP has improved water quality in adjacent wetlands, lakes, and streams	4.2	1.5	1.5	17.6	33.8	45.6
(n)	(136)					

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

Appendix Table 23. Responses to Various Statements Regarding Issues/Attitudes of the Conservation Reserve Program, Landowners, Burke and Divide Counties

Issue/ Attitude	Average Score [a]	Distribution of Responses: Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
		% of respondents				
CRP is a cost-effective program to idle cropland	4.1	2.6	5.1	7.7	49.6	35.0
(n)	(117)					
Crop prices would be lower without CRP	3.5	7.6	11.9	24.6	32.2	23.7
(n)	(118)					
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values	3.6	6.8	12.7	23.7	30.5	26.3
(n)	(118)					
More land should be put into CRP	3.4	8.3	9.9	34.7	24.0	23.1
(n)	(121)					
CRP has been instrumental in keeping me on the farm	3.2	13.2	7.9	44.7	11.4	22.8
(n)	(114)					
CRP benefits farmers and sportsmen	4.2	1.7	4.2	10.9	42.9	40.3
(n)	(119)					
CRP has had an overall positive effect on local economy	3.1	10.9	19.3	30.3	23.5	16.0
(n)	(119)					
CRP has had an overall positive effect on the state economies	3.3	9.4	15.4	30.8	28.2	16.2
(n)	(117)					
CRP has helped stop soil erosion on marginal cropland	4.6	1.7	0.8	4.2	26.6	66.7
(n)	(120)					
CRP has helped reduce flooding by controlling water runoff	3.9	1.7	4.2	26.7	33.3	34.1
(n)	(120)					
CRP contract holders should have the right to use that land for fee and lease hunting	3.4	17.8	10.2	20.3	19.5	32.2
(n)	(118)					
CRP is facilitating the spread of fee and lease hunting	3.3	7.0	5.2	54.8	21.7	11.3
(n)	(118)					
CRP has improved water quality in adjacent wetlands, lakes, and streams	3.9	0.9	2.5	31.1	33.6	31.9
(n)	(119)					

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

Appendix Table 24. Responses to Various Statements Regarding Issues/Attitudes of the Conservation Reserve Program, Landowners, Eddy, Griggs, and Nelson Counties

Issue/ Attitude	Average Score [a]	Distribution of Responses: Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
		% of respondents				
CRP is a cost-effective program to idle cropland	4.0	3.1	7.2	13.9	41.8	34.0
(n)	(194)					
Crop prices would be lower without CRP	3.5	10.4	11.5	21.8	31.8	24.5
(n)	(193)					
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values	3.5	7.7	13.9	23.2	26.3	28.9
(n)	(194)					
More land should be put into CRP	3.2	12.8	14.3	34.7	20.4	17.8
(n)	(196)					
CRP has been instrumental in keeping me on the farm	2.8	25.0	7.6	40.2	14.1	13.1
(n)	(184)					
CRP benefits farmers and sportsmen	4.0	5.6	3.6	13.8	37.7	39.3
(n)	(196)					
CRP has had an overall positive effect on local economies	2.8	19.5	23.1	24.1	24.1	9.2
(n)	(195)					
CRP has had an overall positive effect on the state economy	3.0	14.0	17.6	31.1	26.4	10.9
(n)	(193)					
CRP has helped stop soil erosion on marginal cropland	4.4	2.0	2.0	6.1	31.0	58.9
(n)	(197)					
CRP has helped reduce flooding by controlling water runoff	3.7	5.1	8.6	19.3	42.1	24.9
(n)	(197)					
CRP contract holders should have the right to use that land for fee and lease hunting	3.5	16.3	4.1	21.4	25.5	32.7
(n)	(196)					
CRP is facilitating the spread of fee and lease hunting	3.2	8.8	8.8	45.8	24.2	12.4
(n)	(194)					
CRP has improved water quality in adjacent wetlands, lakes, and streams	3.7	5.1	4.1	27.4	39.6	23.8
(n)	(197)					

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

Appendix Table 25. Responses to Various Statements Regarding Issues/Attitudes of the Conservation Reserve Program, Landowners, Kidder, Logan, and Stutsman Counties

Issue/ Attitude	Average Score [a]	Distribution of Responses: Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
		% of respondents				
CRP is a cost-effective program to idle cropland	4.0	5.0	7.1	12.1	39.0	36.8
(n)	(182)					
Crop prices would be lower without CRP	3.5	13.6	8.2	19.6	32.0	26.6
(n)	(184)					
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values	3.5	10.5	14.4	21.0	26.0	28.2
(n)	(181)					
More land should be put into CRP	3.4	11.9	10.3	29.2	25.4	23.2
(n)	(185)					
CRP has been instrumental in keeping me on the farm	3.0	21.6	9.4	35.7	17.5	15.8
(n)	(171)					
CRP benefits farmers and sportsmen	4.1	5.3	6.9	8.0	31.4	48.4
(n)	(188)					
CRP has had an overall positive effect on local economies	3.2	12.4	16.1	32.3	21.5	17.7
(n)	(186)					
CRP has had an overall positive effect on the state economy	3.3	11.4	11.4	29.7	27.0	20.5
(n)	(185)					
CRP has helped stop soil erosion on marginal cropland	4.5	3.7	0.5	1.6	28.4	65.8
(n)	(190)					
CRP has helped reduce flooding by controlling water runoff	4.0	2.7	6.5	16.7	34.9	39.2
(n)	(186)					
CRP contract holders should have the right to use that land for fee and lease hunting	3.3	17.7	10.7	21.9	23.5	26.2
(n)	(187)					
CRP is facilitating the spread of fee and lease hunting	3.4	9.2	8.2	39.1	24.5	19.0
(n)	(184)					
CRP has improved water quality in adjacent wetlands, lakes, and streams	4.0	2.1	5.3	19.2	36.7	36.7
(n)	(188)					

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

Appendix Table 26. Responses to Various Statements Regarding Issues/Attitudes of the Conservation Reserve Program, Landowners, McHenry, Pierce, and Sheridan Counties

Issue/ Attitude	Average Score [a]	Distribution of Responses: Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
		% of respondents				
CRP is a cost-effective program to idle cropland	3.9	1.5	8.2	16.4	44.0	29.9
(n)	(134)					
Crop prices would be lower without CRP	3.4	16.4	12.7	19.4	22.4	29.1
(n)	(134)					
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values	3.7	6.7	15.8	18.8	18.1	40.6
(n)	(133)					
More land should be put into CRP	3.5	8.0	14.6	25.6	24.1	27.7
(n)	(137)					
CRP has been instrumental in keeping me on the farm	2.9	20.0	14.4	36.0	14.4	15.2
(n)	(125)					
CRP benefits farmers and sportsmen	4.0	3.7	7.4	6.6	45.6	36.7
(n)	(136)					
CRP has had an overall positive effect on local economies	2.9	18.7	23.1	23.9	17.1	17.2
(n)	(134)					
CRP has had an overall positive effect on the state economy	3.2	11.3	21.1	21.0	30.8	15.8
(n)	(133)					
CRP has helped stop soil erosion on marginal cropland	4.5	2.2	1.5	6.6	25.5	64.2
(n)	(137)					
CRP has helped reduce flooding by controlling water runoff	4.0	2.3	4.5	19.7	36.4	37.1
(n)	(132)					
CRP contract holders should have the right to use that land for fee and lease hunting	3.6	14.0	5.1	25.0	16.2	39.7
(n)	(136)					
CRP is facilitating the spread of fee and lease hunting	3.3	7.0	10.1	44.2	25.6	13.1
(n)	(129)					
CRP has improved water quality in adjacent wetlands, lakes, and streams	4.0	2.2	6.7	23.0	29.6	38.5
(n)	(135)					

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

Appendix Table 27. Responses to Various Statements Regarding Issues/Attitudes of the Conservation Reserve Program, Landowners, Ransom and Sargent Counties

Issue/ Attitude	Average Score [a]	Distribution of Responses: Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
		% of respondents				
CRP is a cost-effective program to idle cropland	4.0	3.5	6.9	13.9	42.2	33.5
(n)	(173)					
Crop prices would be lower without CRP	3.8	2.9	9.7	22.3	39.4	25.7
(n)	(175)					
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values	3.1	12.2	15.7	30.8	27.9	13.4
(n)	(172)					
More land should be put into CRP	3.4	6.9	14.4	28.2	31.6	18.9
(n)	(174)					
CRP has been instrumental in keeping me on the farm	2.7	26.3	12.9	36.2	16.0	8.6
(n)	(163)					
CRP benefits farmers and sportsmen	4.1	2.8	5.7	7.4	46.0	38.1
(n)	(176)					
CRP has had an overall positive effect on local economies	3.0	12.1	18.4	37.4	21.8	10.3
(n)	(174)					
CRP has had an overall positive effect on the state economy	3.1	10.3	17.7	34.9	27.4	9.7
(n)	(175)					
CRP has helped stop soil erosion on marginal cropland	4.4	2.8	0.6	8.0	32.9	55.7
(n)	(176)					
CRP has helped reduce flooding by controlling water runoff	3.8	6.3	9.7	16.5	33.5	34.0
(n)	(176)					
CRP contract holders should have the right to use that land for fee and lease hunting	3.4	14.8	9.6	23.3	25.0	27.3
(n)	(176)					
CRP is facilitating the spread of fee and lease hunting	3.4	6.3	5.2	46.0	29.9	12.6
(n)	(174)					
CRP has improved water quality in adjacent wetlands, lakes, and streams	3.9	1.1	4.6	26.7	38.6	29.0
(n)	(176)					

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

Appendix Table 28. Effect of the Conservation Reserve Program on Wildlife Populations, Landowners

Wildlife Type	Overall	Multi-county Study Area: Adams Bowman Hettinger	Burke Divide	Eddy Griggs Nelson	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	----------percent indicating a population increase of 25% or more----------						
Upland Game	49.6	78.2	41.8	36.7	43.5	42.9	58.8
Big Game	56.9	51.1	49.2	59.6	58.2	66.2	55.2
Waterfowl	41.6	33.6	26.2	41.2	50	49.6	43.7
Furbearers	32.8	43.2	36.4	20.7	36.9	34.5	30.3
Others	32	37.2	26.4	27.8	32.6	33.6	34.7

Appendix Table 29. Effect of the Conservation Reserve Program on Selected Recreational Activities, Landowners

Type of Activity	Multi-county Study Area: Adams Bowman Hettinger	Burke Divide	Eddy Griggs Nelson	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent	Overall
	----------percent indicating positive effect----------						
Hunting/ trapping	70.4	59.2	50.8	54.1	60.2	56.5	57.8
Bird watching/ wildlife viewing	42.9	39.8	34.9	37.4	32.4	34.9	36.8
Camping	18.8	6	10.4	13.8	12.5	8	11.6
Horseback riding	10.8	6.8	11.9	13.2	19.1	14.2	12.8

Appendix Table 30. Residency of Respondents that 'do not know' the Effect of the Conservation Reserve Program on Hunter Participation and Time Spent Hunting, Landowners

Hunting Type	In County	Adjacent County	Elsewhere in ND	Out-of State	
	----------% of respondents----------				number of responses
Upland Game					
don't know	12.7	23	26.4	53.6	-537
some other answer	87.2	76.9	73.5	46.4	-2120
(n)	-1615	-421	-272	-349	-2657
Waterfowl					
don't know	14.8	23.7	61.2	48.4	-794
some other answer	85.2	76.3	38.8	51.6	-2057
(n)	-1618	-414	-474	-345	-2851
Big Game					
don't know	15.6	23.2	29.5	50.6	-603
some other answer	84.4	76.8	70.5	49.4	-2045
(n)	-1624	-410	-264	-350	-2648
Other Hunting					
don't know	21.6	28.5	34.4	60.1	-768
some other answer	78.4	71.5	65.6	39.9	-1875
(n)	-1613	-411	-273	-346	-2643

Appendix Table 31. Effect of the Conservation Reserve Program on Hunter Participation and Time Spent Hunting, Landowners

	Positive Effects				Negative Effects			
	Number of People	Time Spent Hunting	Total Positive	No Effect	Number of People	Time Spent Hunting	Total Negative	Don't Know[a]
	----------number of responses----------							
Upland Hunting								
Local	367	324	691	235	17	7	24	155
Non-local In-state	354	281	635	202	10	4	14	197
Out-of-state	394	241	635	203	10	3	13	199
Total	1115	846	1961	640	37	14	51	551
Percent			73.9	24.1			1.9	17.2[a]
Waterfowl Hunting								
Local	268	251	519	299	20	7	27	178
Non-local In-state	255	231	486	278	17	5	22	203
Out-of-state	295	209	504	269	12	6	18	210
Total	818	691	1509	846	49	18	67	591
Percent			62.3	34.9			2.8	19.6
Big Game Hunting								
Local	353	338	691	211	14	1	15	165
Non-local In-state	308	266	574	216	9	0	9	210
Out-of-state	239	193	432	282	11	1	12	242
Total	900	797	1697	709	34	2	36	617
Percent			69.5	29			1.5	20.2
Other Hunting								
Local	182	180	362	389	11	5	16	243
Non-local In-state	145	132	277	388	10	3	13	265
Out-of-state	138	101	239	403	8	3	11	277
Total	465	413	878	1180	29	11	40	785
Percent			41.8	56.2			1.9	27.2

[a] Respondents that indicated 'Do Not Know' were excluded from the calculation of the distribution of effects.

Appendix Table 32 . Residency of Respondents that 'don't know' the Effect of CRP on Nonagricultural Sector Businesses, Landowners

Type of Business	Study County	Adjacent County	Elsewhere in ND	Out-of State
	----------percentage----------			
Restaurants/Motels	15.3	27.8	22.8	47.1
(n)	-574	-151	-92	-119
Sporting Goods	17	27.5	25	48.8
(n)	-568	-149	-92	-117
Taxidermy, Game Processing	19.9	28.4	30.4	53
(n)	-562	-148	-92	-117
Convenience Stores	13.7	26.5	20.9	46.2
(n)	-556	-147	-91	-117
Guide Services/Outfitters	20.7	32	25	51.3
(n)	-557	-147	-92	-117

Appendix Table 33. Perceptions of the Effects of the Conservation Reserve Program on Recreational Businesses by Multi-county Study Group, Landowners

Business Type	Adams Bowman Hettinger	Burke Divide	Eddy Griggs Nelson	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
	----------average score----------					
Restaurants and Motels	1.6[c]	2.3[a,b]	2.6[a]	2.2[b]	2.2[b]	3.3 [a,. b]
(n)	(114)	(98)	(148)	(144)	(111)	(130)
Sporting Goods/ Supplies	1.7[b]	2.4[a]	2.4[a]	2.1[a]	2.2[a]	2.3[a]
(n)	(106)	(98)	(143)	(139)	(112)	(125)
Taxidermy, Game Processing	2.0[b]	2.4[a]	2.5[a]	2.3[a,b]	2.4[a]	2.4[a]
(n)	(97)	(94)	(137)	(132)	(107)	(120)
Convenience Stores	1.6[b]	2.4[a]	2.3[a]	2.1[a]	2.1[a]	2.1[a]
(n)	(109)	(99)	(149)	(139)	(115)	(126)
Guide Services/ Outfitters	1.8[c]	2.7[a]	2.7[a]	2.3[b]	2.4[a,b]	2.7[a]
(n)	(105)	(93)	(139)	(126)	(105)	(113)

[a] For each business type, county groups with the same letter are not significantly different,∝±>.05.
[b] For each business type, county groups with the same letter are not significantly different,∝±>.05.
[c] For each business type, county groups with the same letter are not significantly different,∝±>.05.

Appendix Table 34. Perceptions of the Effects of the Conservation Reserve Program on Recreational Business, Landowners, Adams, Bowman, and Hettinger Counties

Business Type	Average Score [a,b]	Distribution of Responses [a]					
		Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		----------% of respondents----------					
Restaurants and Motels	1.6	53.5	34.2	7	5.3	0	19.1
(n=141)	-114						-27
Sporting Goods/ Supplies	1.7	38.7	50	11.3	0	0	23.2
(n=138)	-106						-32
Taxidermy, Game Processing	2	24.7	47.4	27.9	0	0	28.1
(n=135)	-97						-38
Convenience Stores	1.6	46.8	43.1	10.1	0	0	19.3
(n=135)	-109						-26
Guide Services/ Outfitters	1.8	37.1	42.9	20	0	0	22.8
(n=136)	-105						-31

[a] Respondents that answered 'do not know' were not included in the distribution of responses and the average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Appendix Table 35. Perceptions of the Effects of the Conservation Reserve Program on Recreational Business, Landowners, Burke and Divide Counties

Business Type	Average Score [a,b]	Distribution of Responses [a]					
		Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		----------% of respondents----------					
Restaurants and Motels	2.3	17.3	44.9	28.6	5.1	4.1	18.3
(n=120)	-98						-22
Sporting Goods/ Supplies	2.4	13.3	41.8	41.9	2	1	18.3
(n=120)	-98						-22
Taxidermy, Game Processing	2.4	13.8	35.1	48.9	1.1	1.1	21.7
(n=120)	-94						-26
Convenience Stores	2.4	15.2	39.4	39.4	3	3	16.1
(n=118)	-99						-19
Guide Services/ Outfitters	2.7	8.6	20.4	67.7	2.2	1.1	21.8
(n=119)	-93						-26

[a] Respondents that answered 'do not know' were not included in the distribution of responses and the average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Appendix Table 36. Perceptions of the Effects of the Conservation Reserve Program on Recreational Business, Landowners, Eddy, Griggs, and Nelson Counties

Business Type	Average Score [a,b]	Distribution of Responses [a]					
		Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		----------% of respondents----------					
Restaurants and Motels	2.6	9.5	35.1	46	8.1	1.3	24.9
(n=197)	-148						-49
Sporting Goods/ Supplies	2.4	10.5	42	46.1	0.7	0.7	27
(n=196)	-143						-53
Taxidermy, Game Processing	2.5	9.5	38	51.1	0	1.4	30.5
(n=197)	-137						-60
Convenience Stores	2.3	14.1	46.3	34.2	2.7	2.7	24
(n=196)	-149						-47
Guide Services/ Outfitters	2.7	7.9	21.6	68.4	0.7	1.4	28.7
(n=195)	-139						-56

[a] Respondents that answered 'do not know' were not included in the distribution of responses and the average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Appendix Table 37. Perceptions of the Effects of the Conservation Reserve Program on Recreational Business, Landowners, Kidder, Logan, and Stutsman Counties

Business Type	Average Score [a,b]	Distribution of Responses [a]					Don't Know
		Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	
		----------% of respondents----------					
Restaurants and Motels	2.2	23.6	39.6	31.3	1.4	4.2	24.2
(n=190)	-144						-46
Sporting Goods/ Supplies	2.1	24.5	42.5	28.8	2.8	1.4	24.9
(n=185)	-139						-46
Taxidermy, Game Processing	2.3	13.6	48.5	34.1	3	0.8	27.9
(n=183)	-132						-51
Convenience Stores	2.1	22.3	48.2	25.2	2.1	2.2	23.2
(n=181)	-139						-42
Guide Services/ Outfitters	2.3	19.1	38.1	38.9	2.3	1.6	30.4
(n=181)	-126						-55

[a] Respondents that answered 'do not know' were not included in the distribution of responses and the average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Appendix Table 38. Perceptions of the Effects of the Conservation Reserve Program on Recreational Business, Landowners, McHenry, Pierce, and Sheridan Counties

Business Type	Average Score [a,b]	Distribution of Responses [a]					
		Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		----------% of respondents----------					
Restaurants and Motels	2.2	23.4	38.8	33.3	2.7	1.8	18.9
(n=137)	-111						-26
Sporting Goods/ Supplies	2.2	20.5	42.9	31.3	4.4	0.9	17.6
(n=136)	-112						-24
Taxidermy, Game Processing	2.4	12.1	37.4	47.7	2.8	0	20.1
(n=134)	-107						-27
Convenience Stores	2.1	27	42.6	25.2	4.4	0.8	14.8
(n=135)	-115						-20
Guide Services/ Outfitters	2.4	15.2	28.6	53.3	1.9	1	22.2
(n=135)	-105						-30

[a] Respondents that answered 'do not know' were not included in the distribution of responses and the average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Appendix Table 39. Perceptions of the Effects of the Conservation Reserve Program on Recreational Business, Landowners, Ransom and Sargent Counties

Business Type	Average Score [a,b]	Distribution of Responses [a]					
		Substantial Positive	Slight Positive	Neither	Slight Negative	Substantial Negative	Don't Know
		----------% of respondents----------					
Restaurants and Motels	2.4	10	50	36.2	2.3	1.5	24.4
(n=172)	-130						-42
Sporting Goods/ Supplies	2.3	11.2	46.4	42.4	0	0	27.3
(n=172)	-125						-47
Taxidermy, game processing	2.4	10.8	40.8	47.5	0.9	0	29.8
(n=171)	-120						-51
Convenience Stores	2.1	20.6	50.8	26.2	1.6	0.8	24.5
(n=167)	-126						-41
Guide Services/ Outfitters	2.7	6.21	21.2	71.7	0.9	0	32.7
(n=168)	-113						-55

[a] Respondents that answered 'do not know' were not included in the distribution of responses and the average score.
[b] Based on a score of 1 to 5, where 1 is substantial positive and 5 is substantial negative.

Appendix Table 40. Residency of Respondents that 'Did Not Know' if the Amount of Land Posted had Changed Since the CRP Began

Residency	Percent 'Don't Know'
Study County	17.8
(n)	(585)
Adjacent County	29.0
(n)	(155)
Elsewhere in ND	34.0
(n)	(194)
Out -of-state	61.2
(n)	-116

Appendix Table 41. Residency of Respondents that 'Did Not Know' if the Hunting Access on CRP is More Restrictive than Non-CRP Land

Residency	Percent 'Don't Know'
Study County	19.7
(n)	(586)
Adjacent County	34.2
(n)	(155)
Elsewhere in ND	36.2
(n)	(94)
Out -of-state	64.1
(n)	(117)

Appendix Table 42. Position on Allowing Hunting Access Since Enrolling in the Conservation Reserve Program, Landowners

Has your position on posting changed since enrolling in the CRP?	
No Change	89
Change	11
(n)	-958
If position has changed, how?	
Now post	22.6
(n)	-23
Post more	51
(n)	-52
Do not post	26.5
(n)	-27
Which best describes hunter access to your land?	
CRP land not posted	41%
CRP land posted, but grant permission	39%
Only family allowed to hunt	10%
No hunting	4%
No control of hunting access (up to landowner, lessee)	4%
Land is leased to guide or individuals for exclusive hunting privileges/hunting allowed for fee	2%

Appendix Table 43. Write-in Comments Regarding the Conservation Reserve Program, Landowners

Write-in Comments	Overall	Multi-county Study Area: Adams Bowman Hettinger	Burke Divide	Eddy Griggs Nelson	Kidder Logan Stutsman	McHenry Pierce Sheridan	Ransom Sargent
		% of write-in comments					
CRP is good for farmers and land, keep program as is	16.3	18.8	16.3	19.2	14.5	14.7	14.1
Dissatisfaction with existing enrollment criteria	10.3	12.5	12.2	14.1	9.6	5.9	7.8
Support of CRP for hunting, but oppose leasing of CRP	9.6	12.5	8.2	7.7	10.8	7.4	10.9
Problems with weed control on CRP lands	9.4	3.1	2.0	6.4	12.0	17.6	12.5
Allow some haying of CRP lands	6.4	7.8	4.1	3.8	7.2	10.3	4.7
Issues with the level of CRP payments	6.2	6.3	6.1	5.1	7.2	5.9	6.3
CRP has hurt local businesses	5.4	3.1	6.1	9.0	3.6	5.9	4.7
Hurt ability of young farmers to obtain land	4.2	6.3	0.0	2.6	4.8	4.4	6.3
CRP has helped farmers quit, used as retirement plan	3.9	3.1	8.2	3.8	2.4	4.4	3.1
Limits/restrictions on CRP enrollment (acreage)	3.4	3.1	4.1	3.8.	4.8	2.9	1.6
Dissatisfaction with hunter attitudes/behavior	3.2	4.7	10.2	1.3	2.4	0.0	3.1
Poor crop prices/disapproval of current farm legislation	3.0	1.6	0.0	3.8	4.8	4.4	1.6
Wildlife depredation, too much wildlife	2.7	1.6	2.0	1.3	3.6	4.4	3.1
Opposed to grass re-seeding restrictions	2.5	1.6	6.1	0.0	1.2	2.9	4.7
Support use of CRP for lease/fee hunting	2.2	3.1	2.0	2.6	2.4	1.5	1.6
CRP useful for land prone to flooding or currently flooded	2.2	0.0	2.0	3.8	0.0	1.5	6.3
CRP is good for water and air quality, carbon sequestration	2.0	1.6	4.1	1.3	3.6	0.0	1.6
Program needs to provide food to go with wildlife habitat	1.7	1.6	0.0	5.1	0.0	1.5	1.6
CRP brings in recreational revenue	1.7	3.1	4.1	1.3	1.2	1.5	0.0
Out-of-state landowners disagree with nonresident policies	1.2	3.1	0.0	0.0	0.0	1.5	3.1
Provide extra incentive to landowner for open hunting	1.0	1.6	0.0	1.3	2.4	0.0	0.0
CRP helps those who cannot find suitable renters	0.7	0.0	2.0	1.3	0.0	1.5	0.0
CRP adds to flooding through additional snow melt	0.2	0.0	0.0	0.0	0.0	0.0	1.6
Split license fees with CRP contract holders	0.2	0.0	0.0	0.0	1.2	0.0	0.0
CRP has had no effect on land to rent	0.2	0.0	0.0	1.3	0.0	0.0	0.0
Total Responses	406	64	49	78	83	68	64

Appendix Table 44. Distribution of All Responses to Various Statements Regarding Issues/Attitudes of the Conservation Reserve Program in North Dakota, Local Leaders

Issue/ Attitude	Average Score [a]	Distribution of Responses: Strongly Disagree	Somewhat Disagree	Neither	Somewhat Agree	Strongly Agree
		% of respondents				
CRP is a cost-effective program to idle cropland (n=56)	3.3	10.7	25.0	7.1	42.9	14.3
Crop prices would be lower without CRP (n=57)	3.0	12.3	28.1	22.8	22.8	14.0
Enrollment criteria should focus on farmland characteristics, not wildlife habitat values (n=57)	3.7	1.8	17.5	15.8	35.1	29.8
More land should be put into CRP (n=55)	2.3	35.1	22.8	22.8	14.0	5.3
CRP has been instrumental in keeping me on the farm (n=57)	2.6	30.9	7.3	40.0	18.2	3.6
CRP benefits farmers and sportsmen (n=57)	3.9	5.3	8.8	3.5	54.4	28.0
CRP has had an overall positive effect on local economies (n=56)	2.5	28.6	26.8	17.8	16.1	10.7
CRP has had an overall positive effect on the state economy (n=57)	2.7	17.5	28.1	26.3	24.6	3.5
CRP has helped stop soil erosion on marginal cropland (n=57)	4.5	3.5	1.8	1.7	31.6	61.4
CRP has helped reduce flooding by controlling water runoff (n=57)	3.7	3.5	12.3	22.8	35.1	26.3
CRP contract holders should have the right to use that land for fee and lease hunting (n=57)	2.7	36.8	15.8	10.6	10.5	26.3
CRP is facilitating the spread of fee and lease hunting (n=57)	3.6	8.8	1.7	26.3	43.9	19.3
CRP has improved water quality in adjacent wetlands, lakes, and streams (n=57)	3.8	1.8	5.3	29.8	33.3	29.8

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

Appendix Table 45. Write-in Comments Regarding the Conservation Reserve Program, Local Leaders

Write-in Comments	Percentage of Write-in Comments
Disagreement with existing enrollment criteria, acreage enrolled, and too much good farmland enrolled	19.4
Problems with weed control on CRP lands	12.9
CRP has hurt local businesses	12.9
Allow some haying of CRP lands	9.7
Program competes with farmers for land, hurts young farmers	9.7
Provide extra incentive to landowner for open hunting	6.5
CRP has added to rural population loss	6.5
No increase in hunting, too much land is posted	6.5
CRP has overall net positive effect on state economy	6.5
CRP has helped wildlife populations	3.2
CRP is a welfare program for landowners	3.2
Program should provide incentive for landowners to stay in region	3.2
Total Responses	31

APPENDIX B

LAND OWNER/CONTRACT HOLDER SURVEY

Confidential

Conservation Reserve Program Survey

You have been randomly selected to voluntarily participate in this survey. All responses will remain completely confidential and will be combined with responses from other survey participants in reporting study results. Please note that some questions may not apply to you as this questionnaire has been sent to both farmers and non-farmers. Please answer all questions as best you can.

Conservation Reserve Program (CRP) Acreage

The following questions pertain to your CRP acreage.

1. What was your total enrolled **CRP acres** in North Dakota through **January 1, 2001?** _____ acres

2. What was your total enrolled **CRP acres** in FIELD(County) County through **January 1, 2001**? _____ acres

3. Do you currently have any **CRP contracts** on **land you do not own**? Yes No
   └— If Yes, how many acres are involved? ☞ _____ acres

4. What was your **main** reason for enrolling land in the CRP? (Please choose only one answer)

   ___ economically attractive
   ___ improve soil fertility, stop erosion, etc.
   ___ stabilize income–reduce risk
   ___ increase hunting opportunities
   ___ reduce labor and other resources needed on my farm
   ___ provide transition to retirement
   ___ provide transition to a career change
   ___ other (please specify) _____

Agricultural Questions and Issues

Cropping History

The following questions pertain to the cropping history of the land enrolled in CRP.

5. Of the CRP acres you now have enrolled in FIELD(County) County, what crops were primarily raised on the land prior to initial enrollment? (Please indicate all that apply)

Spring/Winter Wheat	_____ %	Soybeans	_____ %
Durum	_____ %	Canola	_____ %
Barley	_____ %	Alfalfa	_____ %
Oats	_____ %	Sunflower	_____ %
Corn	_____ %	Dry Beans	_____ %
Other crops (_____)	_____ %		

Total Land Use . . . . . = 100 %

Thinking about the **past crop yields on your CRP land** (*before it was put into CRP*), how did those yields compare with yields on your non-CRP land or other cropland in your area not in CRP? Please check the percent relative yield even if you did not farm the land prior to enrollment.

6. My land before it was in CRP generally **yielded** ...

(---------- Less ----------			)	Same	(---------- More ----------		
___30%	___20%	___10%		___	___10%	___20%	___30%

7. How did **input costs** (fertilizer, chemicals, seed, fuel, etc.) for <u>past crop production</u> on your CRP land compare with your non-CRP land or other cropland in the area? Please check the relative percent even if you did not farm the land.

(---------- Less ----------			)	Same	(---------- More ----------		
___30%	___20%	___10%		___	___10%	___20%	___30%

Effects of CRP on Your Farming Operation

The following questions pertain to how the CRP has affected your individual farming operation.

8. Have you ever considered farming to be your primary occupation? (Please circle)
   No (**skip to question 15**)
   Yes

9. In what year did you begin farming as a career? _____

10. Are you currently farming? (Please circle one response)
    No ┐
       Did the CRP influence your decision to quit farming? Yes ☞ (**skip to question 15**)
    Yes (part-time) No ☞ (**skip to question 15**)
    Yes (full-time)

11. How many total **acres did you farm** (owned and rented) in 2000? _____ acres

12. Of the acres you farmed (cropland and pasture), what percent do you own? _____%

13. On a scale of 1 to 5, how important have the following benefits of the CRP been in **keeping** your farming **operation viable**?

	Very Important				Unimportant
Help pay short-term debts	1	2	3	4	5
Help pay long-term debts	1	2	3	4	5
Provide income for family living expenses	1	2	3	4	5
Help offset income loss on other cropland	1	2	3	4	5
Take marginal/uneconomical cropland out of production	1	2	3	4	5
Supplement my income with hunting revenue	1	2	3	4	5
Provide a more stable income source than crop production	1	2	3	4	5
Other (specify_____)	1	2	3	4	5

14. Recognizing that many factors can influence a farming operation, the following questions are aimed at understanding **how the CRP has affected your farming operations**.

Since enrolling in the CRP, **what effect has the program had on the following**:

Please circle the ✓ which best reflects your situation

Level of Basic Farm Inputs Needed	Increase	No effect	Decrease
The amount of hired labor used	✓	✓	✓
The amount of family or operator labor used	✓	✓	✓
The amount of machinery/equipment needed	✓	✓	✓

Have you implemented any of the following practices since enrolling in the CRP?	Yes	No
Crops sensitive to wildlife depredation are not planted/stored near CRP tracts	✓	✓
Retained grass/sod in areas of my fields prone to to runoff/erosion (e.g., gullies, drainage areas)	✓	✓
Use of no-till practices	✓	✓
Use of minimum tillage practices	✓	✓
Plant food plots next to CRP tracts	✓	✓
Feed wildlife during the winter (hay, grain, etc.)	✓	✓
Delay first cutting of hay until after bird nesting	✓	✓
Delay/cancel tillage on land near CRP tracts to allow feeding/foraging by wildlife	✓	✓
Planted trees or created other habitat with my own resources	✓	✓
Others _____	✓	✓
Strategic and Planning Issues for Your Farm		
Helped transfer the farming operation to the next generation	✓	✓
Helped the transition to retirement	✓	✓
Reduced my income risk	✓	✓
Made my land easier to sell, increased the value of my land	✓	✓
Allowed/helped me to expand my farm operation	✓	✓

General Agricultural Issues

Note: Even if you are not actively farming/ranching please answer the following to the best of your ability.

15. How does **your** average **CRP payment** compare with **average cash rents** for similar land in the county?
    Average cash rents in the county are:
    $____ /acre **more** than my average CRP payment
    $____ /acre **less** than my average CRP payment
    ____ cash rents and my average CRP payments are nearly **the same**
    ____ do not know

16. How has CRP land affected the **availability of cropland to rent** in the area?
    ___ had **no effect** on the amount of land to rent
    ___ **reduced** the amount of land for rent
    ___ **increased** the amount of land to rent
    ___ do not know

17. How has CRP land affected the **level of cash rents** for cropland in the area? (Please indicate what has happened and the percentage change)
    ___ CRP has **increased** cash rents in the area ☞ ____ % increase
    ___ CRP has **decreased** cash rents in the area ☞ ____ % decrease
    ___ CRP has had **no effect** on cash rents in the area
    ___ do not know

18. Please indicate how the following types of agricultural businesses have been **affected financially by the CRP**. (circle the number which best describes the overall effect)

	Positive		No	Negative		Don't
Type of Business	Substantial	Slight	Effect	Slight	Substantial	Know
Machinery and equipment dealers	1	2	3	4	5	DK
Elevators & grain handling facilities	1	2	3	4	5	DK
Custom operators (e.g., tillage, spraying, harvesting)	1	2	3	4	5	DK
General farm supply (e.g., seed, pesticides, fuel, hardware)	1	2	3	4	5	DK
Agricultural lenders (e.g., local banks)	1	2	3	4	5	DK
Others _____	1	2	3	4	5	DK

Issues and Attitudes Toward the CRP

19. Please indicate **your opinion** on the following general statements that pertain to the CRP (circle the most appropriate response).

	Strongly Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Strongly Agree
CRP is a cost-effective program to idle cropland	1	2	3	4	5
Crop prices would be lower without CRP	1	2	3	4	5
CRP enrollment criteria should focus on marginal farmland characteristics, not wildlife habitat values	1	2	3	4	5
More cropland should be put into the CRP	1	2	3	4	5
CRP has been instrumental in keeping me on the farm	1	2	3	4	5
CRP benefits both farmers and sportsmen	1	2	3	4	5
CRP has had an overall positive impact on the local economy	1	2	3	4	5
CRP has had an overall positive impact on the state economy	1	2	3	4	5
CRP has helped stop soil erosion on marginal cropland	1	2	3	4	5
CRP has helped reduce flooding by controlling water runoff	1	2	3	4	5
CRP contract holders should have the right to use that land for fee and lease hunting	1	2	3	4	5
CRP is facilitating the spread of fee and lease hunting	1	2	3	4	5
CRP has improved water quality in adjacent wetlands, lakes, and streams	1	2	3	4	5

Recreation Issues

20. Based on your perception, have you seen a change in the level of the following recreational activities **as a result of the CRP** in your county? (please circle)

Type of Activity	Increase		No Effect	Decrease		Don't Know
	Substantial	Slight		Slight	Substantial	
Hunting/trapping	1	2	3	4	5	DK
Bird watching/Wildlife viewing	1	2	3	4	5	DK
Camping	1	2	3	4	5	DK
Horseback riding	1	2	3	4	5	DK
Other recreation activities (please specify_____)	1	2	3	4	5	DK

21. Has the CRP affected wildlife populations in your county/area? Please think **ONLY of the change in wildlife populations due to CRP** in your area. (please circle the most appropriate response)

Type of Wildlife	Populations have **Increased**			No Effect	Populations have **Decreased**			Don't Know
	Greater than 50%	25 to 50%	1 to 25%		Greater than 50%	25 to 50%	1 to 25%	
Upland game (e.g., pheasants, grouse)	✓	✓	✓	✓	✓	✓	✓	DK
Big game (e.g., deer, antelope)	✓	✓	✓	✓	✓	✓	✓	DK
Waterfowl (e.g., ducks, geese)	✓	✓	✓	✓	✓	✓	✓	DK
Furbearers (e.g., fox, coyotes)	✓	✓	✓	✓	✓	✓	✓	DK
Others (e.g., doves, hawks, crows)	✓	✓	✓	✓	✓	✓	✓	DK

22. How have the following types of non-agricultural businesses been **affected financially** by **recreational activities** on CRP land in **your county or area**? (please circle the response which best describes the overall effect)

Type of Business	Positive: Substantial	Positive: Slight	No Effect	Negative: Slight	Negative: Substantial	Don't Know
Restaurants & Motels	1	2	3	4	5	DK
Sporting goods/supplies	1	2	3	4	5	DK
Taxidermy, game processing	1	2	3	4	5	DK
Convenience stores (e.g., gas, misc. supplies)	1	2	3	4	5	DK
Guide services & outfitters	1	2	3	4	5	DK
Others (_____)	1	2	3	4	5	DK

Hunting Activity on CRP Lands

23. **Based on your perception**, please indicate what change in **hunter participation** has occurred in your area **ONLY as a result of the CRP**. Please note: For any group of hunters, more than one response is possible (for example, there could be both an increase in *the number* of local hunters and an increase in *the amount of hunting* by local hunters). Local hunters are defined as those living within 25 miles of the area they hunt*. Please circle the most appropriate responses.

	CRP has a **positive effect** on: The number of people hunting	CRP has a **positive effect** on: The amount of time people spend hunting	No effect	CRP has a **negative effect** on: The number of people hunting	CRP has a **negative effect** on: The amount of time people spend hunting	Don't Know
Upland Hunting (e.g., grouse, pheasants, turkey)						
Local hunters*	✓	✓	✓	✓	✓	DK
Non-local, in-state hunters	✓	✓	✓	✓	✓	DK
Out-of-state hunters	✓	✓	✓	✓	✓	DK
Waterfowl hunting (e.g., ducks, geese)						
Local hunters*	✓	✓	✓	✓	✓	DK
Non-local, in-state hunters	✓	✓	✓	✓	✓	DK
Out-of-state hunters	✓	✓	✓	✓	✓	DK
Big Game hunting (e.g., deer)						
Local hunters*	✓	✓	✓	✓	✓	DK
Non-local, in-state hunters	✓	✓	✓	✓	✓	DK
Out-of-state hunters	✓	✓	✓	✓	✓	DK

23. - Continued -

	CRP has a **positive effect** on			CRP has a **negative effect** on		
	The number of people hunting	The amount of time people spend hunting	No effect	The number of people hunting	The amount of time people spend hunting	Don't Know
Other hunting/trapping activities						
Local hunters*	✓	✓	✓	✓	✓	DK
Non-local, in-state hunters	✓	✓	✓	✓	✓	DK
Out-of-state hunters	✓	✓	✓	✓	✓	DK

The following questions pertain to **hunting activities on your CRP** land.

24. Are you currently participating in the Private Land Open to Sportsmen (PLOTS) program? (please circle)
    Yes (**skip to question 26**)
    No

25. What is the **main reason** for not participating in the PLOTS program? (Please check only one response)
    ___ I am unaware of the program
    ___ economic incentive is not sufficient to relinquish my right to post the land
    ___ the ND Game and Fish Department rejected my contract
    ___ the program is not available in my area
    ___ CRP was already established
    ___ economically more attractive to lease out the land for hunting
    ___ others (Please specify) _____

26. Which of the following statements best describes hunter access to your CRP land? (**Please check one statement** that applies to the majority of your CRP acreage)
    ___ no hunting is allowed on my CRP land
    ___ only family and relatives are allowed to hunt
    ___ my CRP land is posted, but I do grant permission to hunters
    ___ my CRP land is leased to an outfitter/guide
    ___ my CRP land is leased to an individual hunter(s) for exclusive hunting privileges
    ___ hunting can be conducted on my CRP land for a fee
    ___ my CRP land is not posted
    ___ I have no control regarding hunting on my CRP (e.g., up to landowner, lessee)
    ___ other _____

27. In your opinion, has **the amount** of land posted in FIELD(County) County changed since the CRP began?
___ the amount of land posted has **increased**
___ **no change** in the amount of land being posted
___ the amount of land posted has **decreased**
___ do not know

28. In your opinion, with **respect to hunting access**, do landowners in FIELD(County) County **treat CRP differently** than non-CRP lands?
___ hunting access on CRP is **more restrictive**
___ there is **no difference** in hunting access
___hunting access on CRP is **less restrictive**
___ do not know

29. Has **your position** on allowing hunters access to your land **changed** since enrolling in the CRP?
___ No, my position has not been affected (no change)
___ Yes, my position has changed
If yes, how has your position changed? (Check only one response)
___ I now post, but did not prior to the CRP
___ I now post more of my land
___ I used to post, but do not since the CRP

30. Do you charge (fee hunting) or are you paid (leasing) for providing hunting activities/access on your CRP land?
Yes
No (**skip to question 33**)

31. Please estimate the amount of recreational revenue from your CRP land in 2000?
$_____

32. What percentage of those revenues were from out-of-state hunters? _____ %

Future Decisions Regarding the Use of CRP Land

33. What would be your **preferred choice** for your **current CRP land** when your CRP contract(s) expires? (Please assume the same CRP enrollment criteria and contract payment rates)
____% would be re-enrolled back into the CRP
____% would not be re-enrolled, instead the land would be used for other purposes
= 100%

34. If the **CRP is not renewed** in the next round of Federal legislation or if **you elect not to re-enroll** your CRP land, how would you manage or use the land? (please indicate future use to all choices that apply)
___% would be returned to crop production
___% would be used as hayland
___% would be used as pasture
___% would be sold
___% would be left in permanent cover (not grazed or hayed)
___% other use _____

Respondent Characteristics

The following questions help us to better understand some basic characteristics regarding survey respondents, and will be used to group respondents by various statistical categories.

35. In what county and state are you currently living? _____ County _____State
How long have you lived in this county? _____ years

36. What is your current employment status?
___ Unemployed
___ Retired
___ Going to school
___ Self-employed
___ Employed by someone else

37. What category best matches your occupation?
___ Farmer/Rancher
___ Public Service/Government
___ Nurse/Doctor
___ Secretarial/clerical
___ Management/Executive
___ Sales
___ Engineer
___ Construction
___ Teacher
___ Machinist/Welder/Manufacturing
___ Accountant
___ Mechanic/Automotive technician
___ Banker/Insurance Agent
___ General Laborer/worker
Other _____

38. What is your age? _____ years

39. What is the highest level of education that you have completed? (circle appropriate number)

< 9	9 10 11 12	13 14 15 16	17 18+
No high school	High School	College	Graduate School

Financial characteristics

Please be assured that the following questions will be used together with other respondents' answers to generate averages over several counties. Basic financial information is important to identify differences in attitudes or use of CRP. Your individual responses will be **kept confidentia**l and will **never be released**.

If you did not farm in 2000, please skip question 40

40. Enter the approximate percentage of your gross farm income from the following enterprise types? Consider your CRP and any government farm program payments as crop revenue.

Crops	_____ %
Livestock	_____ %
Total	100 %

41. What was your **approximate** net household income in 2000? Please circle the appropriate range. (Note: if needed, this information can be found on line 39 of the 2000 Federal Tax Form 1040)

    $0 to $10,000
    $10,001 to $25,000
    $25,001 to $50,000
    $50,001 to $100,000
    $100,001 to $150,000
    more than $150,000

42. Please feel free to add any **additional thoughts or comments** you may have regarding the **agricultural and recreational aspects of CRP**? Here is your chance to address any issues not covered in this questionnaire. Again, your responses are important and are kept confidential.

_____

_____

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Thank you for your input and time.

Please return this questionnaire in the enclosed postpaid envelope.

For a copy of the study results, please provide a name and mailing address below or you may directly contact the Department of Agribusiness and Applied Economics at North Dakota State University in Fargo, ND. Phone 701-231-7441, fax 701-231-7400, E-mail: bangsund@ndsuext.nodak.edu, or visit our departmental listing of research reports on the world wide web at http://agecon.lib.umn.edu/ndsu.html

We anticipate a final report will be available to the public sometime in 2001.

APPENDIX C

COMMUNITY LEADERS SURVEY

Confidential

Conservation Reserve Program Survey

Community Leaders

You have been selected to voluntarily participate in this survey. All responses will remain completely confidential and will be combined with responses from other survey participants in reporting study results. Please answer all questions as best you can.

Agricultural Questions

1. How has CRP land affected the **availability of cropland to rent** in the area?
   ___ had **no effect** on the amount of land to rent
   ___ **reduced** the amount of land for rent
   ___ **increased** the amount of land to rent
   ___ do not know

2. How has CRP land affected the **level of cash rents** for cropland in the area? (Please indicate what has happened and the percentage change)
   ___ CRP has **increased** cash rents in the area ☞ ____ % increase
   ___ CRP has **decreased** cash rents in the area ☞ ____ % decrease
   ___ CRP has had **no effect** on cash rents in the area
   ___ do not know

3. Please indicate how the following types of agricultural businesses have been **affected financially by the CRP**. (circle the number which best describes the overall effect)

	Positive		No	Negative		Don't
Type of Business	Substantial	Slight	Effect	Slight	Substantial	Know
Machinery & equipment dealers	1	2	3	4	5	DK
Elevators & grain handling facilities	1	2	3	4	5	DK
Custom operators (e.g., tillage, spraying, harvesting)	1	2	3	4	5	DK
General farm supply (e.g., seed, pesticides, fuel, hardware)	1	2	3	4	5	DK
Agricultural lenders (e.g., local banks)	1	2	3	4	5	DK
Others _____	1	2	3	4	5	DK

Issues and Attitudes Toward the CRP

4. Please indicate **your opinion** on the following general statements that pertain to the CRP (circle the most appropriate response).

	Strongly Disagree	Somewhat Disagree	Neither Agree or Disagree	Somewhat Agree	Strongly Agree
CRP is a cost-effective program to idle cropland	1	2	3	4	5
Crop prices would be lower without CRP	1	2	3	4	5
CRP enrollment criteria should focus on marginal farmland characteristics, not wildlife habitat values	1	2	3	4	5
More cropland should be put into the CRP	1	2	3	4	5
CRP has been instrumental in keeping me on the farm	1	2	3	4	5
CRP benefits both farmers and sportsmen	1	2	3	4	5
CRP has had an overall positive impact on the local economy	1	2	3	4	5
CRP has had an overall positive impact on the state economy	1	2	3	4	5
CRP has helped stop soil erosion on marginal cropland	1	2	3	4	5
CRP has helped reduce flooding by controlling water runoff	1	2	3	4	5
CRP contract holders should have the right to use that land for fee and lease hunting	1	2	3	4	5
CRP is facilitating the spread of fee and lease hunting	1	2	3	4	5
CRP has improved water quality in adjacent wetlands, lakes, and streams	1	2	3	4	5

Recreation Issues

5. Based on your perception, have you seen a change in the level of the following recreational activities **as a result of the CRP** in your county? (please circle)

Type of Activity	Increase: Substantial	Increase: Slight	No Effect	Decrease: Slight	Decrease: Substantial	Don't Know
Hunting/trapping	1	2	3	4	5	DK
Bird watching/Wildlife viewing	1	2	3	4	5	DK
Camping	1	2	3	4	5	DK
Horseback riding	1	2	3	4	5	DK
Other recreation activities (please specify_____)	1	2	3	4	5	DK

6. Has the CRP affected wildlife populations in your county/area? Please think **ONLY of the change in wildlife populations due to CRP** in your area. (please circle the most appropriate response)

Type of Wildlife	Populations have **Increased**: Greater than 50%	25 to 50%	1 to 25%	No Effect	Populations have **Decreased**: Greater than 50%	25 to 50%	1 to 25%	Don't Know
Upland game (e.g., pheasants, grouse)	✓	✓	✓	✓	✓	✓	✓	DK
Big game (e.g., deer, antelope)	✓	✓	✓	✓	✓	✓	✓	DK
Waterfowl (e.g., ducks, geese)	✓	✓	✓	✓	✓	✓	✓	DK
Furbearers (e.g., fox, coyotes)	✓	✓	✓	✓	✓	✓	✓	DK
Others (e.g., doves, hawks, crows)	✓	✓	✓	✓	✓	✓	✓	DK

7. How have the following types of non-agricultural businesses been **affected financially** by **recreational activities** on CRP land in **your county or area**? (please circle the response which best describes the overall effect)

Type of Business	Positive: Substantial	Positive: Slight	No Effect	Negative: Slight	Negative: Substantial	Don't Know
Restaurants & Motels	1	2	3	4	5	DK
Sporting goods/supplies	1	2	3	4	5	DK
Taxidermy, game processing	1	2	3	4	5	DK
Convenience stores (e.g., gas, misc. supplies)	1	2	3	4	5	DK
Guide services & outfitters	1	2	3	4	5	DK
Others _____	1	2	3	4	5	DK

Hunting Activity on CRP Lands

8. **Based on your perception**, please indicate what change in **hunter participation** has occurred in your area **ONLY as a result of the CRP**. Please note: For any group of hunters, more than one response is possible (for example, there could be both an increase in *the number* of local hunters and an increase in *the amount of hunting* by local hunters). Local hunters are defined as those living within 25 miles of the area they hunt*. Please circle most appropriate responses.

	CRP has a **positive affect** on: The number of people hunting	CRP has a **positive affect** on: The amount of time people spend hunting	No effect	CRP has a **negative affect** on: The number of people hunting	CRP has a **negative affect** on: The amount of time people spend hunting	Don't Know
Upland Hunting (e.g., grouse, pheasants, turkey)						
Local hunters*	✓	✓	✓	✓	✓	DK
Non-local, in-state hunters	✓	✓	✓	✓	✓	DK
Out-of-state hunters	✓	✓	✓	✓	✓	DK
Waterfowl hunting (e.g., ducks, geese)						
Local hunters*	✓	✓	✓	✓	✓	DK
Non-local, in-state hunters	✓	✓	✓	✓	✓	DK
Out-of-state hunters	✓	✓	✓	✓	✓	DK

8. - Continued -

	CRP has a **positive affect** on			CRP has a **negative affect** on		
	The number of people hunting	The amount of time people spend hunting	No effect	The number of people hunting	The amount of time people spend hunting	Don't Know
Big Game hunting (e.g., deer)						
Local hunters*	✓	✓	✓	✓	✓	DK
Non-local, in-state hunters	✓	✓	✓	✓	✓	DK
Out-of-state hunters	✓	✓	✓	✓	✓	DK
Other hunting/trapping activities						
Local hunters*	✓	✓	✓	✓	✓	DK
Non-local, in-state hunters	✓	✓	✓	✓	✓	DK
Out-of-state hunters	✓	✓	✓	✓	✓	DK

Respondent Characteristics

The following questions help us to better understand some basic characteristics regarding survey respondents, and will be used to group respondents by various statistical categories.

9. In what county and state are you currently living? _____ County _____State
   How long have you lived in this county? _____ years

10. What category best matches your primary occupation?
    ___ Farmer/Rancher
    ___ Public Service/Government
    ___ Accountant
    ___ Management/Executive
    ___ Banker/Insurance Agent
    ___ Sales
    ___ Engineer
    Other _____

11. What is your age? _____ years
12. What is the highest level of education that you have completed? (circle appropriate number)

< 9	9 10 11 12	13 14 15 16	17 18+
No high school	High School	College	Graduate School

13. What was your **approximate** net household income in 2000? Please circle the appropriate range. (Note: if needed, this information can be found on line 39 of the 2000 Federal Tax Form 1040)

    $0 to $10,000
    $10,001 to $25,000
    $25,001 to $50,000
    $50,001 to $100,000
    $100,001 to $150,000
    more than $150,000

14. Please feel free to add any **additional thoughts or comments** you may have regarding the **agricultural and recreational aspects of CRP**? Here is your chance to address any issues not covered in this questionnaire or in the personal interviews. Again, your responses are important and are kept confidential.

_____

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Thank you for your input and time.

Please return this questionnaire in the enclosed postpaid envelope.

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We anticipate a final report will be available to the public sometime in 2001.