Agricultural Economics Report No. 302 August 1993

FUTURE LAND USE DECISIONS OF NORTH DAKOTA CONSERVATION RESERVE PROGRAM PARTICIPANTS

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Acknowledgements

We would like to thank the North Dakota CRP participants who voluntarily responded to our survey. This project would not have been possible without their input. Second, we want to acknowledge the participation of state and county U.S. Department of Agriculture, Agricultural Stabilization and Conservation Association offices across North Dakota. They were most helpful in constructing the mailing list for the study. Finally, we wish to thank Dr. Bill Barker, Dr. Laurence Crane, Dr. Larry Leistritz, Dr. Jay Leitch, and Dr. Roger Johnson for the guidance they provided during the course of the study and Charlene Lucken for her editorial review. Financial support for this study was provided by the North Dakota State Agricultural Experiment Station.

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Highlights

The objective of this study was to identify factors that influence North Dakota CRP participants' decisions about future land use. Cross-sectional data from a mail survey were used to identify factors that are most likely to influence CRP land use decisions and to investigate relations between land use decisions and socioeconomic characteristics. A response rate of 39 percent or 351 participants was obtained from the sample size of 900.

A majority (52 percent) of CRP land would be returned to crop production if the CRP program is not renewed in 1995. Twenty-one percent of CRP land would be rented out or leased and 18 percent used as pastureland.

Eighty-four percent of the respondents wanted a 10-year extension of CRP contracts. Fifty-seven percent would like permanent CRP contracts. Forty percent of the respondents were willing to take a reduction in CRP payments and be able to hay or graze the CRP land. One-fifth of the respondents would be willing to take a 50 percent reduction in rental payments if a follow-up CRP program were offered. Agricultural commodity prices and costs of production were significant determinants in respondents' decisions concerning future use of CRP land.

FUTURE LAND USE DECISIONS OF NORTH DAKOTA CONSERVATION RESERVE PROGRAM PARTICIPANTS

Chester L. Hill and Cole R. Gustafson*

Congress initiated a 10-year cropland retirement program in 1985 to protect the nation's highly erodible cropland. The Conservation Reserve Program (CRP), authorized under Title XII of the 1985 Food Security Act (U.S. Congress 1985), sought to remove 40 to 45 million of the 100 million acres highly erodible and other environmentally sensitive cropland acres from production (Bjerke 1991). The main objective of the CRP was to reduce soil erosion on highly erodible land, while secondary objectives were (Reichelderfer and Boggess 1988)

(a) to reduce water and wind erosion,
(b) to protect long-term capability to produce food and fiber,
(c) to reduce sedimentation,
(d) to improve water quality,
(e) to create habitat for wildlife and fish through improved food and cover,
(f) to curb production of surplus commodities, and
(g) to provide income support for farmers.

Producers nationwide signed the first CRP contracts in 1986. North Dakota had roughly three million acres enrolled in the program after the 12th sign-up in July 1992 (Table 1).

TABLE 1. NORTH DAKOTA CRP ENROLLMENT

Year	Acres Enrolled Per Year	Cumulative Acres Enrolled
1986	37,055	37,055
1987	563,224	600,279
1988	963,013	1,563,292
1989	715,538	2,278,830
1990	591,258	2,870,088
1991	13,353	2,883,441
1992	30,334	2,913,775

SOURCE: USDA, 1992.

The north and north central regions of North Dakota have the largest portion of CRP acres enrolled (Figure 1). Stutsman County has the most acres enrolled. Kidder County has the largest portion of cropland enrolled in the conservation program. Nationwide, over 35 million acres have been contracted. Thus, North Dakota contains 9 percent of the total acres enrolled in the program. This percentage of contracted land by state ranks second after Texas (USDA 1992).

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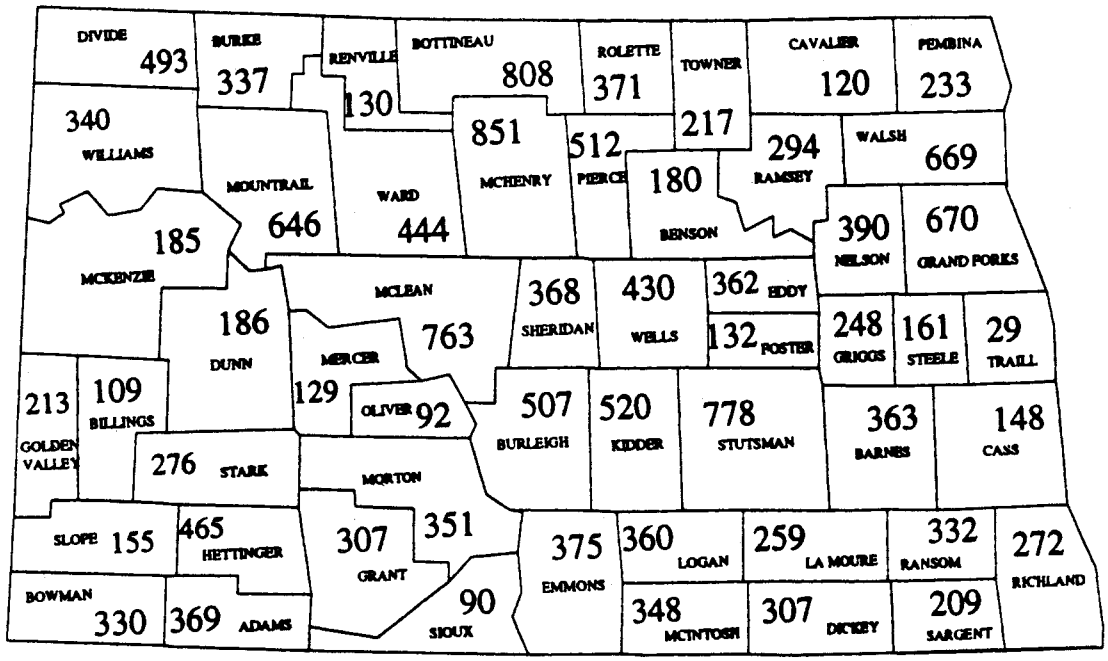

SOURCE: USDA, 1992.

Figure 1. CRP Contracts Per County in North Dakota by July 1992.

During each sign-up period, landowners submit bids for an annual rental payment that they would accept to convert their cropland to permanent vegetative cover. An acceptable payment rate was based on the prevailing local per acre rental rate of comparable land (Senechal 1990).

Once the Agricultural Stabilization and Conservation Service accepted a landowner's bid, the government provided an annual rental payment to the landowner. The rental payment covered the costs of establishing cover and provided a moderate level of profit to remove land from production. CRP payments to the landowner were limited to $50,000 per year. A one-time, cost-share payment from the Commodity Credit Corporation (CCC) was also available to ease the burden of establishing vegetative growth. Farmers cannot use CRP land for grazing, haying, or other economic uses during the 10-year contract, except during declared emergencies (Blackburn et al. 1991).

Objective of Study

CRP contracts in North Dakota will begin to expire in 1996. At this point, how the enrolled land will be used and what key factors will motivate landowners' decisions are unknown.

The objective of this study was to survey existing North Dakota CRP contract holders and identify factors that might influence their decisions about future land use. Many of the factors that caused landowners to enroll in the program initially are expected to be important variables. These factors include economic conditions in the agricultural sector and demographic characteristics of the CRP participants. Relative prices of grain and livestock commodities,

input price levels, off-farm employment opportunities, status of the participants' machinery complements, and their financial leverage position, education, and life cycle are expected to be important.

History of U.S. Conservation Programs

The federal government has used retirement of cropland to control supply and to meet conservation goals since 1950. The first major conservation program for long-term land retirement was the Conservation Reserve Program (U.S. Congress 1956). The program was commonly known as the Soil Bank program and started in the mid-1950s. The Soil Bank program reached 29 million acres in 1960 (USDA 1963). Farmers could place cropland into conservation practices and receive annual payments from the government. The Soil Bank was voluntary, and farmers could contract designated areas of cropland from three to ten years (Laycock 1991). The purposes of the Soil Bank program were to divert land from crop production, to establish protective cover, and to reduce surplus production (Laycock 1991). Almost 80 percent of the 29 million acres that were enrolled in the Soil Bank program was returned to crop production during the export boom of the 1970s (Laycock 1991).

Socioeconomic Research Related to CRP

Lee (1980, p. 1070) investigated the hypothesis that "a larger, more corporate agriculture lacked a conservation ethic and would choose a planning horizon and discount rate designed to maximize current income at the expense of future soil quality." She reported no significant national differences in mean soil erosion rates among landowners. Income and tenure variables provided possible explanations for erosion differences in the Corn Belt, Delta, and Northeast regions. But for the Southeast and Appalachian regions, types of crops raised and owner attitudes were possible reasons.

Walker (1982) reported that a farmer's choice of cropping practices affected both immediate and long-term profits as soil productivity was reduced. Applying his erosion damage function to the annual cropping region of the Palouse in Idaho and Washington, he concluded that nonconservation practices with deep soil were economical. The reverse held true for shallower soils. Results were highly sensitive to the rate of discount and production costs and were less sensitive to crop price.

Large-scale farmers were more likely to enroll in conservation programs than limited-resource farmers (Kairumba and Wheelock 1990). Main reasons for small-scale farmers were less education and a greater farm dependence.

While personal factors were important in explaining the assortment of conservation practices used, economic factors were more pivotal in explaining conservation effort (Ervin and Ervin 1982). Education and degree of erosion potential on croplands were significantly related to the farmers' perception of the erosion problem on croplands. Risk aversion and type of farm were directly related to the number of conservation practices used.

Besides the common belief that enrolling in the CRP would increase profits, Christensen and Norris (1983) reported that a number of factors influenced farmers' attitudes toward, and perceptions of, soil erosion. Among these factors were age, years operating present farm, education, size of the farm, type of farm, level of technical and financial assistance, and profitability of conservation practices. They observed that the effects of these factors were not consistent in different geographical areas.

Gross farm income, stewardship orientation, farming experience, and perception of soil erosion were not important predictors of conservation management, implementation of SCS conservation plan, or use of best management practices (BMP) (Nowak 1987). Risk-prone farmers were more likely to adopt the necessary BMPs. Education was directly related to perception of erosion problems and conservation behavior.

Rural sociologists concurred that participation in conservation programs was predictable, but complex. Napier et al. (1987) identified several attitudinal, economic, and social factors (e.g., age, education, prices of commodities, and attitudes) that relate to conservation. Clearfield (1983) listed four major sets of explanatory variables: social/psychological, farm structural, ecological, and institutional. Nowak (1987) specified three sets of independent variables in his study of conservation practices: informational, economical, and ecological factors.

Lynne and Rola (1985) advanced the economic modeling of Florida landowners' conservation decisions by improving ways in which values, beliefs, attitudes, and intentions were incorporated. They reported that economic theory did not help in selecting variables to explain the resource conservation actions of landowners and that farmers influenced conservation behavior.

Farm program implementation has become more complex as program adjustments have increased (Reichelderfer and Boggess 1988). Simulations were created for the outcomes of a fully enrolled reserve program under alternative implementation schemes. Manipulating key control variables (eligibility, bid prices) to directly target preferences could improve future performance.

CRP has affected local economies (Dicks et al. 1988). The impact must be traced from the reduced crop production (direct impacts) to agricultural inputs and processing industries (indirect impacts) and then to the goods and services that support agricultural industries (induced impacts).

Socioeconomic impact studies of CRP in North Dakota (Mortensen et al. 1990) showed a net direct reduction in production expenditures and household income of $55 million. The retail sector absorbed most of the effect (62 percent). Total impact was about $141 million, which was about 0.5 percent of the state's baseline economic business. Rural businesses rely heavily on farm sales and may be affected differently by CRP.

A study among landowners in Daviess County, Missouri in 1988 showed similar results (Heimlich and Kula 1990). Intentions were to develop significant variables that explained the operator's plan for CRP land. Almost half of the landowners, who controlled 52 percent of

CRP acres in the study, planned to leave the contracted land in grass after the contracts expired and to graze or harvest forage. Forty-two percent of the respondents planned to return the land to crop production.

Mortensen et al. (1988) conducted a baseline analysis of participants in the Conservation Reserve Program in North Dakota. Annual contract payments averaged $37 per acre with nearly 58 percent indicating that CRP payments were higher than cash rent. About 21 percent of the respondents said that CRP allowed them to continue farming.

Studies were conducted to determine reasons for the slow enrollment into the CRP program. Esseks and Kraft (1989) suggested that landowners did not know they were eligible and used surveys to ask landowners why they did not enroll. Results showed that landowners were not informed of the programs.

The Soil and Water Conservation Society (1990) undertook an independent three-year national survey of the CRP to provide information about (a) how implementation of the program had progressed, (b) what degree of protection the program provided for resources, (c) what economic impact the program had on farmers and rural communities, (d) what plans contract holders might have for their CRP acres once contracts expire, and (e) what incentives contract holders might accept to keep at least some of the more highly erodible land out of crop production.

Nearly half of the 2,769 respondents had plans for their CRP acres (Soil and Water Conservation Society 1990). About 34 percent of the respondents planned to return their CRP acres to crop production, 20 percent would remain in grass for livestock forage, and 13 percent would remain in grass for hay production. Most respondents (73 percent) owned and operated the CRP acres under contract.

The contract holder was an owner/operator of an average of 323 acres with 93 acres in CRP (Soil and Water Conservation Society 1990). The average value of the land in CRP was $626 per acre. The mode for the Land Capability Class was Class III with an average soil loss tolerance value of four. More than half the contract holders reported gross farm income of less than $20,000. Most of the landowners would extend contracts for another five years if rental payments were increased 17 percent.

The Soil and Water Conservation Society organized a steering committee and studied 49 sites in 29 states to record the sites' progress in their conservation practices (Soil and Water Conservation Society 1992). Soil erosion control on CRP acres was substantial, wildlife habitat had improved on CRP acres, and economic impacts of the CRP were positive for participating farmers.

Procedure

A cross-sectional, random, stratified-sample mail survey of 900 North Dakota CRP landowners was conducted in November 1992 (Hill 1993). The mail questionnaire consisted of five sections (Appendix A). Section one identified socioeconomic characteristics of the respondents. Section two obtained information on the respondents'

labor usage, farm machine inventories, production practices, and input costs. Section three elicited the respondents' plans for idled CRP acres and asked them to respond to several alternative scenarios of commodity prices and input costs. Section four obtained attitudes and beliefs of the respondents regarding conservation programs. Section five identified the financial characteristics of the respondents.

A list of all CRP landowners and tenants was obtained for each North Dakota county. The sample was stratified, based on the proportion of CRP contracts per county. Thirty of the 900 respondents were selected to participate in a pretest. A second mailing with a reminder letter was sent to those who had not responded within 14 days.

Survey Response Rate

Of the 900 questionnaires sent out, 351 were returned as usable surveys for a 39 percent response rate (Table 2).

TABLE 2. SUMMARY OF SURVEY QUESTIONNAIRES SENT AND RECEIVED BY POOL GROUP, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Item	Unit	Pool Group 1	2	3	4	5	Total
Surveys sent	No.	159	234	213	160	134	900
Surveys returned	No.	58	91	94	55	57	351
Percent of total sent	%	17.6	26.0	23.7	17.8	14.9	100.0
Percent of return	%	36.5	38.9	44.1	34.4	42.5	39.0

Survey Results

Respondents' characteristics--such as tenure to the CRP acres, age distribution, level of education, and the location of CRP acres--are shown in Table 3, land ownership characteristics in Table 4, enrollment acres per sign-up in Table 5, and the use of CRP acres before the land was enrolled in the program in Table 6.

Since a person could contract land more than once in the program, a respondent could check more than one description of tenure to CRP acres. Therefore, total percentages exceeded 100 percent. Of the people who responded, 89 percent had an owner/operator tenure relationship to their CRP acres (Table 3). Nearly 24 percent of the respondents had a renter/operator tenure relationship. This meant most North Dakota CRP participants owned the land they enrolled in the program.

Over 60 percent of respondents were older than 55 (Table 3). One-third of the respondents were over 65 years old. Only four percent were younger than 35. This implied that many respondents in CRP were nearing retirement age and must decide whether to remain in farming or retire.

TABLE 3. SOCIOECONOMIC CHARACTERISTICS OF CRP RESPONDENTS, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Socioeconomic Characteristics	Percent in Groups	Median Value
Relation to CRP acres:		
Owner/operator	89.3	
Renter/operator	23.9	
Owner but nonoperator	7.3	
Other	0.8	
Respondent's age:		
Under 25 years	0.0	
25-34	4.0	
35-44	15.8	60
45-54	19.8	
55-64	30.2	
65 and over	30.2	
Level of education:		
8th grade or under	16.5	
Some high school	10.8	
High school graduate	31.8	
Attended college	21.9	12
Undergraduate college degree	12.8	
Attended graduate school	1.1	
Graduate degree	5.1	
Location of CRP acres:		
Where live	33.5	
Within 5 miles of residence	38.6	5
Between 5 to 20 miles	20.5	
Over 20 miles	7.4	

Nearly 20 percent of the respondents had some college education (Table 3). One-third of the respondents had at least a high school education. Respondents' median educational level was a high school education.

Land location had little impact on respondents' decisions to enroll since a majority of the land placed in CRP was within five miles of the respondent's residence. Nearly 73 percent of the land enrolled in CRP was within five miles of the respondent's residence (Table 3). About 20 percent of CRP land was located five to 20 miles from the respondent's residence.

Each respondent enrolled an average of nearly 500 acres in the program (Table 4). The average number of acres a respondent operated was about 1,610, representing acres owned plus acres rented from others minus the acres that are rented to others. Respondents operated about 475 acres that were rented from other people.

TABLE 4. LAND OWNERSHIP CHARACTERISTICS OF CRP RESPONDENTS, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Item	CRP	Crop	Pasture/Hay	Other
	----------average acres----------			
Land owned	491.9	484.8	302.6	39.2
Land rented to others	17.9	83.2	73.4	3.7
Rented from others	94.7	261.2	107.5	9.4

The majority of land was enrolled in CRP during the fourth and ninth sign-ups (Table 5). Fewer acres were enrolled in the last three sign-ups. The percent column in Table 5 indicates the frequency with which respondents enrolled land in CRP during each sign-up. For example, nearly 40 percent of the respondents enrolled land in CRP sign-up four. The column total does not equal 100 percent since landowners had 12 periods to enroll land in the CRP.

TABLE 5. CRP ENROLLMENT BY SIGN-UP, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Sign-up Period	Percent[a]	Acres Enrolled[b]
1 (March 3-14, 1986)	1.7	432
2 (May 5-16, 1986)	8.5	7,289
3 (August 4-15, 1986)	11.3	8,441
4 (February 9-27, 1987)	39.7	31,923
5 (July 20-31, 1987)	41.9	34,703
6 (February 1-19, 1988)	38.2	24,505
7 (July 18-August 31, 1988)	30.3	20,350
8 (February 6-24, 1989)	30.3	19,403
9 (July 17-August 4, 1989)	33.4	25,711
10 (March 4-15, 1991)	2.0	1,609
11 (July 8-19, 1991)	2.8	1,617
12 (June 15-26, 1992)	0.0	0

[a]Percent is greater than 100 percent since many landowners enrolled land in CRP in more than one sign-up.
[b]Acres enrolled by survey respondents.

SOURCE: USDA, 1992.

A majority of those CRP acres previously were planted to wheat (Table 6). A significant portion of CRP acres also were planted to barley and sunflowers. In the category "other," many respondents reported previous production of oats or summerfallow.

TABLE 6. LAST CROP PLANTED ON CRP ACRES, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Crop	Percent of CRP Acres
Wheat	59.5
Barley	14.0
Sunflowers	9.9
Hay/alfalfa	4.9
Corn	2.3
Soybeans	0.1
Other	9.3
	100.0

Program Participation

This section summarizes the respondents' motivation for enrolling in the CRP program, the effect the program has had on their farm operation, changes respondents have made or are considering in their operation, and what they would do with their CRP land if the program was not extended.

The primary reason respondents enrolled in CRP was of the low risk associated with the rental payments from the government (Table 7). Concern for soil erosion, wildlife habitat, and most profitable use for the land were other primary reasons.

TABLE 7. REASON RESPONDENTS ENROLLED IN CRP, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Reasons for Enrolling	Response		
	Agree	Uncertain	Disagree
	---------percent----------		
Low risk	81	10	9
Concern for soil erosion	79	9	12
Provide wildlife habitat	71	14	15
Most profitable use	67	23	10
No new farm equipment	56	14	30
Meet conservation compliance	48	20	32
More free time	46	15	39
Close to retirement	44	11	45

Nearing retirement was not an important reason respondents enrolled in CRP (Table 7). One reason for this response may be that older respondents (over 55 years of age) thought this was not a plan for retirement but a management option to increase revenue or retain ownership for an extended period.

By enrolling in CRP, the survey respondents had been able to avoid additional equipment investments (Table 8). Respondents indicated that CRP enrollment also had allowed them to avoid further debt. Nineteen percent of the respondents indicated CRP had not affected their farming business.

TABLE 8. HOW PARTICIPATION IN CRP AFFECTED FARM BUSINESS, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Effect on Farm Business	Percent[a]
Avoided additional equipment investments	47
Net income increased	38
Avoided going further into debt	37
No effect on farming business	19
Retired from farming earlier than expected	15
Other	12
Avoided bankruptcy	10
Purchased more cropland	7

[a]Percent is greater than 100 percent since more than one effect could occur.

Respondents had made or were considering many changes to their farm operation (Table 9). The largest item of change dealt with retirement; 14 percent of the respondents stated they had retired while 28 percent were considering retirement.

Respondents' tenure to their land may affect their interest in CRP re-signing. Two percent of the respondents had sold land, and 13 percent were considering sale of their land (Table 9). Seven percent of the respondents already rented land to other farmers, and another 13 percent were considering it. The older respondents had a greater interest in renting land to others.

Besides changes made to the farm, 19 percent of the respondents were employed off farm, and another 9 percent were considering the choice (Table 9). Respondents younger than 55 had a greater interest in being employed off farm while still operating a farm.

Respondents would return 52 percent of their CRP land to crop production (Table 10). This percentage was considerably more than the Soil and Water Conservation Society (1990) study, where the national

average was 34 percent. Eighteen percent of the respondents would place enrolled land into livestock production, and 21 percent would rent or lease the CRP land to other farmers (Table 10).

TABLE 9. CHANGES CRP RESPONDENTS HAVE MADE OR ARE CONSIDERING IN THEIR FARM BUSINESS, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Changes in Farm Business	Have Made[a]	Considering[b]
	---------percent--------	
Worked (or will work) at off-farm job	19	9
Planned to retire from farming	14	28
Bought (or will buy) land	12	11
Rented (or will rent) more acres from others	11	10
Bought (or will buy) livestock	9	13
Rented (or will rent) more acres to others	7	14
Diversified (or plan to diversify) by adding more crop rotations	6	7
Entered more land into the CRP	5	10
Sold (or will sell) land	2	13

[a]Percent is less than 100 percent since many respondents may have indicated no effect on their farm business.
[b]Percent is greater than 100 percent since many respondents may have indicated more than one effect on their business.

TABLE 10. INTENDED LAND USE AFTER CRP CONTRACTS EXPIRE, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Land Use After Contracts Expire	Percent
Resume crop production	52
Rent or lease the land to another farmer	21
Use the land as pasture or hay for livestock	18
Sell the land	4
Keep in grass or trees without haying/grazing	2
Use for recreation, hunting, or wildlife habitat	2
Other	1
	100

Farm Input Usage

This section describes how farm inputs (such as labor, input costs, intensity of inputs, and farm equipment) had changed as a result of CRP. Crop yields between CRP land and other cropland did not differ (Table 11). Forty-four percent of the respondents stated that yields were virtually the same between their CRP land and other cropland. Yield averaged between 0 and 10 percent less on CRP land than on non-CRP land. Much of the land enrolled in CRP may not be the least productive or considered highly erodible, based on these crop yield differences (Table 11).

TABLE 11. DIFFERENCES IN CROP YIELDS AND INPUT COSTS BETWEEN CRP LAND AND NON-CRP LAND, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Percent	Difference in Crop Yield	Difference in Input Cost
	-------percent response-------	
50 or less	4.5	4.4
40 to 30	17.9	4.8
20 to 10	25.5	7.6
No change	44.4	66.7
10 to 20	4.8	7.0
30 to 40	1.0	4.4
50 or more	1.9	5.1
	100.0	100.0

Respondents indicated input costs between the two land classes were similar (Table 11). About 67 percent of the respondents stated that costs were the same for CRP and non-CRP land. This implied that production costs and respondents' production practices were similar for both CRP and non-CRP land.

Almost 60 percent of the respondents indicated that input usage had remained the same on non-CRP land. Twenty-two percent of the respondents had decreased the level of inputs used on the remaining portion of cropland. The question was asked to determine if farmers intensified input levels on their remaining cropland to make it more productive. A majority of respondents had not changed their farm input management since enrolling land in CRP.

Inventories of farm equipment have also remained unchanged since enrollment in the CRP program. Over 65 percent of the survey respondents had the same inventory, and about 32 percent of the respondents had reduced their inventory during enrollment in CRP.

Sixty-four percent of the respondents had adequate farm equipment to operate CRP land if a follow-up CRP program was unavailable. If

resuming production is more profitable, a majority of respondents (65 percent) would be able to continue farming their CRP land with no additional farm equipment investments. Thus, CRP participants may have adequate machinery to farm their CRP land once contracts expire.

Seeding and tillage equipment were the farm equipment most needed to resume production on CRP acres (Table 12). The least needed implements were tractors of over 150 horsepower and livestock equipment.

TABLE 12. FARM EQUIPMENT NEEDED TO PURCHASE TO OPERATE CRP LAND, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Implement Needed	Percent[a]
Seeding Equipment	67
Tillage Equipment	60
Combine	59
Trucks	49
Tractor (100-150hp)	45
Livestock Equipment	39
Tractor (over 150hp)	37

[a]Percent is greater than 100 percent since many respondents may need more than one implement.

Enrollment in CRP has allowed respondents to divert labor to other activities on the farm (Table 13). Twenty-six percent of the respondents had reduced hired labor while 25 percent had obtained off-farm employment. Since enrolling in CRP, respondents have reduced farm expenses by hiring less labor and by working off farm, generating more income.

Decision Making

Market prices, production costs, and the possibility of re-enrolling land in another CRP program were "very" important factors among respondents (Table 14). Respondents indicated the possibility of enrolling in another conservation program was important to them. Respondents also indicated that market prices and production costs were "very" important factors in their decision to enroll in another conservation program.

TABLE 13. HOW CRP HAD AFFECTED LABOR TIME ON THE FARM, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Effect on Labor Time	Percent[a]
Divert labor to other activities on the farm	61
Use free time for leisure or family activities	29
Reduced hired labor	26
Engage in off-farm employment	25
Purchase or rent more land to operate	10
Other	10

[a]Percent is greater than 100 percent since many respondents could have more than one effect occur.

One factor of mixed importance among respondents was land selling price (Table 14). Many respondents, especially the older CRP participants, wanted to resume some kind of production or to rent/lease their land to another farmer without having to sell the land once contracts expire.

TABLE 14. IMPORTANCE OF ECONOMIC FACTORS ONCE CRP CONTRACTS EXPIRE, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Economic Factors	Importance		
	Little	Some	Very
	-------percent-------		
Enrolling land in another CRP program	7	14	79
Market prices or government supports	17	19	64
Production costs	16	21	63
Cost of soil conservation practices	25	23	52
Productivity of haying CRP land	31	24	45
Availability of govt. cost sharing	39	20	41
Land selling price	42	22	36

Respondents had a mixed response to factors concerning the importance of the availability of government cost sharing, cost of soil conservation practices, and the productivity of haying CRP land (Table 14). These factors had a minimum effect on respondents' decisions about future land use.

The most important factor in respondents' decisions to farm their CRP land rather than to keep the land in permanent cover was the opportunity to earn more income by planting crops rather than leaving the land in permanent cover (Table 15). Respondents indicated the least important factor was the free time lost if they were to farm their CRP land. Almost 49 percent indicated that losing the steady income from government payments was a "very" important factor.

TABLE 15. IMPORTANCE OF FACTORS IN DECISION TO FARM CRP LAND RATHER THAN TO KEEP LAND IN PERMANENT COVER, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Factors	Importance		
	Little	Some	Very
	-------percent------		
Earning more money by planting crops	18	17	65
Increased soil erosion	25	24	51
Losing steady stream of income	28	23	49
Decreased free time	61	21	18

Respondents agreed that CRP contracts should be extended for 10 more years (Table 16). Respondents preferred not to reduce CRP rental rates if contracts are extended.

Respondents had mixed feelings about reducing CRP rental rates and being allowed to hay or graze CRP land (Table 16). Respondents were uncertain if the returns from haying or grazing would offset the reduction in CRP rental payments. Respondents were interested (57 percent) in some type of permanent conservation program. Respondents were willing to retire cropland for an extended period if compensated for the forgone returns from producing on that cropland.

If the CRP was not renewed, respondents would return their CRP acres into crop production (Table 16). Respondents (44 percent) would not return CRP land to another conservation program if agricultural commodity prices increased. Respondents were less interested (26 percent) in converting CRP land to livestock production.

The number of off-farm job opportunities would not induce respondents to enroll in CRP again (Table 16). Only 17 percent of the respondents indicated that off-farm employment would affect their decision to re-sign. The condition of their farm equipment would not affect their decision to enroll in another conservation program.

Financial Characteristics

Over 30 percent of the respondents had gross incomes exceeding $100,000 (Table 17). About a third of the respondents had gross incomes between $40,000 to $99,999.

TABLE 16. DISTRIBUTION OF RESPONSES ON ATTITUDE QUESTIONS, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Attitude Questions	Response		
	Agree	Uncertain	Disagree
	percent		
Extend contracts 10 more years	84	14	2
Take reduction in CRP payments	12	29	59
Reduction in payments but allowed to hay or graze the CRP land	40	28	32
Want permanent CRP contract(s)	57	28	15
Grow crops on CRP land	63	27	10
Raise livestock on CRP land	26	36	38
Retire after CRP contract(s) expire	27	28	45
Inclined to enroll in CRP again if govt. commodity payments decreased	55	28	17
Less inclined to enroll in CRP again if ag commodity prices increased	44	39	17
Inclined to enroll in CRP again if more off-farm jobs available	17	27	56
Condition of farm equipment will affect decision to enroll again	30	21	49
Stay in CRP to pay off debt	24	11	65

TABLE 17. GROSS FARM INCOME AND NET CASH FARM INCOME OF RESPONDENTS BY CATEGORY, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Gross Farm Income	Percent	Net Cash Farm Income	Percent
Less than $20,000	12	Less than $0	8
$20,000 to $39,999	24	$0 to $9,999	26
$40,000 to $99,999	33	$10,000 to $19,999	26
$100,000 to $249,999	25	$20,000 to $39,999	27
$250,000 to $499,999	5	$40,000 to $99,999	11
Over $500,000	1	$100,000 or over	2
	100		100

On the net income side, over 50 percent of the respondents reported net income earnings of $20,000 or less (Table 17). Eight percent of the respondents reported net earnings of less than $0. These percentages were similar to the net income earnings of respondents in the Soil and Water Conservation Society (1990) and higher than those reported in Mortensen et al. (1988).

Respondents' gross farm income included crop, livestock, and CRP revenues (Table 18). Crop revenue and CRP payments made up over two-thirds of the respondent's gross income. Livestock averaged 15 percent of gross income, while 11 percent came from other enterprises.

TABLE 18. 1991 GROSS FARM INCOME FROM THE FOLLOWING ENTERPRISES, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Enterprise	Percent
Crops	38
Livestock	15
CRP	36
Other	11
	100

During enrollment in CRP, respondents had worked off farm. Before enrollment in the CRP program, respondents reported off-farm net income averaged about 12 percent. During enrollment in CRP, respondents took advantage of off-farm employment and increased their percent of outside net income by 4 percent. Respondents indicated their average off-farm net income would drop off slightly (15 percent) after CRP contracts expire.

Fifty-five percent of the respondents had farm assets of between $100,000 to $499,999 (Table 19). The percentage of respondents

TABLE 19. TOTAL VALUE OF FARM ASSETS AND DEBT IN 1991, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Farm Assets	Percent	Farm Debt	Percent
0$ to $49,999	8	No debt	26
$50,000 to $99,999	9	$1 to $49,999	19
$100,000 to $499,999	55	$50,000 to $99,999	16
$500,000 to $749,999	17	$100,000 to $249,999	27
$750,000 to $999,999	6	$250,000 to $499,999	10
$1,000,000 or more	5	$500,000 or more	2
	100		100

holding farm assets between $100,000 to $499,999 was higher than the 32 percent in Mortensen et al. (1988). Only 5 percent of the respondents had $1 million or more in total farm assets, while 8 percent of the respondents had assets of $50,000 or less.

Respondents' farm debt was distributed more evenly than were farm assets (Table 19). Of the survey respondents, 26 percent reported having no farm debt, and 2 percent of respondents had a farm debt over $500,000. Compared to Mortensen et al. (1988), this study's percentages were higher for the amount of farm debt, indicating that debt may have expanded slightly among landowners in North Dakota during the last four years.

The respondent's debt-to-asset ratio was calculated by using the midpoint values of the different asset and debt brackets in the survey. Nearly 70 percent of the respondents had a debt-to-asset ratio of less than 0.4 (Table 20). Twenty-four percent of the respondents had a debt-to-asset ratio of zero, and 12 percent had a ratio of 0.70 or more. Comparing these results with Mortensen et al. (1988) shows that the percentage of respondents in the larger debt-to-asset ratios has risen slightly, except for the ratio of 0.70 and over where the percentage has decreased.

TABLE 20. DEBT-TO-ASSET RATIO OF CRP RESPONDENTS BY CATEGORY, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Debt-To-Asset Ratio	Percent
No debt	24
Less than 0.40	40
0.40 to 0.69	24
0.70 and over	12
	100

Thirty-nine percent of the respondents spent their rental payments on debt retirement (Table 21). The next largest portion (17 percent) was spent for family living expenses. The rest of the respondent's CRP payment was divided among the remaining categories.

Respondents wanted lower production costs before returning to crop or livestock production (Table 22). Respondents' average reduction in input prices was between 20 to 30 percent. Twenty-five percent of the respondents indicated no change was needed in input prices before they would consider returning CRP land to crop or livestock production (Table 22).

TABLE 21. HOW CRP PAYMENTS WERE BEING/WILL BE SPENT, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

How CRP Payments Spent	Percent of CRP Payment
Farm debt retirement	39
Family living, leisure	17
Property taxes	9
Nonfarm investments and savings	9
Annual maintenance	8
Farmland purchases	7
Replacing machinery and buildings	6
Other	3
Livestock	2
	100

Respondents indicated agricultural commodity prices would have to increase before they would return land to production (Table 22). The average percent increase for commodity prices was between 30 and 40 percent, based on commodity price levels and production costs.

TABLE 22. CHANGES RESERVED IN COMMODITY AND INPUT PRICES AND NET INCOME FOR CROPS AND LIVESTOCK, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

	Category			
Percent Change	Drop in Input Prices	Increased Ag Prices	Increased Net Income-Crops	Increased Net Income-Livestock
	percent			
0	25	12	11	16
10	11	7	6	11
20	16	13	13	15
30	19	20	27	20
40	6	14	12	11
50	12	18	17	11
>50	11	16	14	16
	100	100	100	100

Respondents would need large increases in the revenue generated from crop and livestock enterprises before they would consider returning enrolled land to crop or livestock production. The respondents' average increase in net income for crop production was between 40 and 50 percent, while the increase in net income for livestock production averaged between 30 and 40 percent.

Respondents did not want reductions in CRP rental rates (Table 23). Nearly 50 percent of the respondents would take only a 10 percent or less reduction in rental payments. A little over 70 percent of the respondents indicated they would only take a 20 percent or less reduction. Fourteen percent of the respondents were willing to take reductions greater than 50 percent. The respondents' average reduction in CRP rental rates that respondetns would consider was slightly over 20 percent of their CRP rental rates.

Respondents were willing to take a slight reduction in CRP rental rates from the government to continue the conservation program.

TABLE 23. RESPONSE TO REDUCTION IN CRP RENTAL RATES, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Percent Reduction	Percent of Respondents
0	19
10	31
20	22
30	8
40	2
50	4
>50	14
	100

Measures of Association

Respondent's answers can be associated with their socioeconomic characteristics. Cross tabulations (bivariate frequency distributions) quantify the associations between different groups and their responses. The statistics that summarize association in cross tabulation analyses are correlation coefficients. A Chi-square test was performed to test the significance of these relationships. Based on time available and funding for the project, a confidence level of 95 percent was used for the Chi-square test to determine significant differences.

Cross Tabulations

To examine the effects of age, farm size, and net farm income on responses, respondents were separated into two classes for each of these socioeconomic characteristics. Age and net farm income divisions were based on median values from the survey response. Farm size was the mean value of acres survey respondents operated. The Chi-square test was used to identify differences between the classes:

Socioeconomic Characteristics	Class
Under 55 years of age	Young
Over 55 years of age	Old
Under 1,600 acres operated	Small
Over 1,600 acres operated	Large
Net farm income under $20,000	Low
Net farm income over $20,000	High

Land Characteristics

Older respondents placed a larger percentage of their land into CRP and operated fewer total acres than younger respondents (Table 24). Younger respondents rented more of their land and had more education.

Significant differences were noticed between the age classes and farm size (Table 24). The younger respondents farmed more land (over 1,600 acres) than the older respondents.

The older respondents owned a larger percentage of their land (Table 24). This means the younger respondents are renting land from other farmers to operate the larger farms.

If CRP is not renewed, neither age class would enter livestock production. The younger respondents would place a larger percentage of CRP land into crop production. The older respondents would rent or lease their CRP land to other farmers.

Although large farm respondents placed more acres in the CRP program, small farm respondents placed a higher percentage of their total farm acres in the CRP program. Eighty-two percent of the small farm respondents indicated an owner tenure to their CRP acres. Thirty-four percent of the large farm respondents indicated a rent tenure to their CRP acres.

The large farm respondents likely would return to crop production while small farm respondents would rent or lease their CRP acres if CRP contracts were not renewed. Farm size and age results appear to be correlated to respondents' decisions for future land use.

Low income and small farm respondents placed a smaller percentage of land in CRP. If CRP is not renewed, high net income respondents were more likely to return the land to crop production.

TABLE 24. EFFECT OF SOCIOECONOMIC CHARACTERISTICS ON CRP ACRES, TENURE, EDUCATION, AND IF CRP IS NOT RENEWED, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

	Age		Farm Size		Net Income	
Land Characteristics	Young	Old	Small	Large	Low	High
	----------percentage----------					
CRP acres enrolled:						
Under 550 acres	51	57	69	32*	63	47*
550 acres and over	49	43	31	68	37	53
	(N=140)	(N=214)	(N=222)	(N=133)	(N=179)	(N=118)
CRP acres/total farm acres:						
Less than 50%	64	54	42	84*	56	69*
Over 50%	36	46	58	16	44	31
	(N=140)	(N=214)	(N=222)	(N=133)	(N=179)	(N=118)
Farm size:						
Under 1600 acres	56	67*			74	43*
1,600 acres and over	44	33			26	57
	(N=140)	(N=214)			(N=179)	(N=118)
Tenure to CRP acres:						
Owner/operator	64	84*	82	66*	75	74
Renter/operator	36	16	18	34	25	26
	(N=140)	(N=214)	(N=222)	(N=133)	(N=179)	(N=118)
Education:						
High school or less	34	75*	64	51*	60	47*
College education	66	25	36	49	40	53
	(N=139)	(N=212)	(N=220)	(N=132)	(N=179)	(N=116)
	------number of respondents------					
If CRP is not renewed:**						
Pasture/hay-less than 50%	100	183*	180	104	137	96
50% or more	40	31	42	29	22	42
Crop production-less than 50%	38	96*	100	35*	80	32*
50% or more	102	118	122	98	86	99
Rent or lease--less than 50%	127	135*	152	111*	131	93
50% or more	13	79	70	22	25	48

*Denotes significant differences were detected between the classes of the particular characteristic, using Chi-square at the 95 percent level of significance.
**Denotes the percent of CRP land that would be placed in that particular land use.

Farm Input Characteristics

Both age classes diverted labor to other farm activities and reduced hired labor (Table 25). The older respondents used more of their free time from not operating the CRP acres for leisure activities while the younger respondents worked off farm.

Once CRP contracts expire, more of the younger respondents will operate their CRP acres than the older respondents. The older respondents either would rent or lease the CRP acres or purchase farm equipment to operate the CRP acres.

TABLE 25. EFFECT OF SOCIOECONOMIC CHARACTERISTICS WITH LABOR, FARM EQUIPMENT, AND INPUTS, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

	Age		Farm Size		Net Income	
Farm Input Characteristics	Young	Old	Small	Large	Low	High
	------number of respondents------					
How labor time affected:						
Other farm activities	87	117	117	88*	103	79
More free time	24	73*	59	38	43	35
Operate more land	20	15*	11	24*	16	18
Reduce hired labor	39	49	46	42*	43	32
Off-farm employment	49	35*	60	24*	54	17*
Adequate farm equipment to produce on CRP land:						
Yes	101	117*	115	104*	102	89*
No	38	83	93	28	72	28
	----------percentages----------					
Level of inputs on remaining cropland:						
Increased	25	17	19	23	22	21
Decreased	19	24	26	16	25	17
Stayed the same	56	59	55	61	53	63
	(N=134)	(N=189)	(N=193)	(N=128)	(N=170)	(N=112)

*Denotes significant differences were detected between the classes of the particular characteristic, using Chi-square at the 95 percent level of significance.

Large farm respondents used their labor from not operating the CRP acres on other farm activities or operated more land. Small farm respondents workef off farm while enrolling land in CRP (Table 25). Large farm respondents would be more able to operate their CRP land than small farm respondents once CRP contracts expired.

Low net income respondents participated in more off-farm activities while enrolling land in CRP. High net income respondents had adequate farm machinery to operate CRP land (Table 25).

No differences were indicated among the classes concerning a change in the level of inputs on the remaining cropland (Table 25). The reason may be that respondents' level of input remained the same.

Attitude Characteristics

The socioeconomic characteristics of respondents and factors that may affect respondents' decisions on future land differed slightly (Table 26). Significant differences were indicated between farm size classes concerning the importance of market prices.

TABLE 26. EFFECT OF SOCIOECONOMIC CHARACTERISTICS WITH DECISION MAKING AND ATTITUDE CHARACTERISTICS, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Attitude Characteristics	Age		Farm Size		Net Income	
	Young	Old	Small	Large	Low	High
	percent					
IMPORTANCE						
Market prices for crops:						
Somewhat	18	16	12	26*	13	22
Moderate	18	20	22	14	18	20
Very	64	64	66	60	69	58
	(N=138)	(N=190)	(N=200)	(N=129)	(N=171)	(N=115)
Possibility of re-enrolling:						
Somewhat	7	8	8	7	8	7
Moderate	15	13	12	16	15	9
Very	78	79	80	77	77	84
	(N=136)	(N=199)	(N=206)	(N=130)	(N=175)	(N=116)
AGREE/DISAGREE						
Extend contract(s):						
Disagree	4	1	2	2	2	3
Uncertain	14	14	14	15	12	16
Agree	82	85	84	83	86	81
	(N=137)	(N=209)	(N=214)	(N=133)	(N=177)	(N=117)
Reduction in rental rates:						
Disagree	59	59	57	62	57	58
Uncertain	28	29	31	26	31	31
Agree	13	12	12	12	12	11
	(N=137)	(N=205)	(N=210)	(N=133)	(N=175)	(N=117)
Lower rate plus haying/grazing:						
Disagree	27	36	34	29	29	33
Uncertain	27	28	26	32	28	28
Agree	46	36	40	39	43	39
	(N=137)	(N=204)	(N=209)	(N=133)	(N=174)	(N=117)
Have permanent contract:						
Disagree	19	12	12	20	14	20
Uncertain	32	26	28	29	24	32
Agree	49	61	60	51	62	48
	(N=136)	(N=202)	(N=207)	(N=132)	(N=173)	(N=116)
Retire after contract(s) expire:						
Disagree	81	22*	41	53*	45	46
Uncertain	15	36	27	29	29	30
Agree	4	42	32	18	26	24
	(N=136)	(N=199)	(N=203)	(N=133)	(N=172)	(N=115)
Enroll again if more off-farm jobs:						
Disagree	61	53	49	67*	47	69
Uncertain	22	32	32	20	32	22
Agree	17	15	19	13	21	9
	(N=137)	(N=198)	(N=204)	(N=132)	(N=171)	(N=115)
Farm equipment affects decision:						
Disagree	56	45*	45	57	41	59*
Uncertain	23	19	23	16	25	17
Agree	21	36	32	27	34	24
	(N=136)	(N=199)	(N=204)	(N=132)	(N=171)	(N=117)
Stay in CRP to pay off debt:						
Disagree	64	65	65	65	56	76*
Uncertain	11	11	9	14	12	9
Agree	24	24	26	21	32	15
	(N=137)	(N=202)	(N=208)	(N=132)	(N=173)	(N=117)

*Denotes significant differences were detected between the classes of the particular characteristic, using Chi-square at the 95 percent level of significance.

Market prices were not as important to large farm respondents as they were to small farm respondents. For the most part, respondents indicated that market prices and the possibility of re-enrolling in CRP were important factors in their land use decisions.

All classes of respondents would like to extend CRP contracts for 10 more years (Table 26). A majority of respondents did not want CRP rental rates reduced if contracts were extended.

Though respondents would not take a reduction in CRP rental rates, respondents favored extending CRP contracts at a lower rental rate and being able to hay and graze the CRP land (Table 26). Respondents indicated this option would yield the greatest return for their land. Respondents in each of the classes favored permanent CRP contracts, indicating they were contemplating different management practices that would be suitable for their operation.

Significant differences were indicated between the farm size classes concerning off-farm employment (Table 26). A larger percentage of small farm respondents indicated that outside jobs may affect their decision to re-enroll in CRP.

Farm equipment also affected respondents' decisions to re-enroll in CRP (Table 26). Low income and older respondents agreed that farm machinery would affect their decision to re-enroll in another conservation program.

Respondents indicated debt was not a reason they would stay in CRP, except for the respondents in the category of low net incomes. A higher percentage (32 percent) of the low income respondents wanted to stay in CRP to pay off debt (Table 26).

Financial Characteristics

Major financial differences were detected with age, farm size, and net income characteristics of respondents. Older respondents indicated their debt position was smaller than that of younger respondents (Table 27) and had a smaller debt-to-asset ratio.

Younger respondents were generating a larger gross income and had accumulated a larger asset base than the older respondents. Younger respondents had accumulated large debts for the establishment of large farms.

Significant differences among the various financial characteristics were also indicated among farm sizes. Small farm respondents retained less debt than the large farm respondents. Large farm respondents held a greater amount of farm assets and were generating a higher level of gross income than small farm respondents (Table 27).

Respondents receiving high net incomes tended to have a lower amount of debt and, in turn, a smaller debt-to-asset ratio. Net income corresponded to the level of gross income the respondents were receiving.

TABLE 27. EFFECT OF SOCIOECONOMIC CHARACTERISTICS WITH CERTAIN FINANCIAL CHARACTERISTICS, 1992 CONSERVATION RESERVE PROGRAM SURVEY, NORTH DAKOTA

Financial Characteristics	Age		Farm Size		Net Income	
	Young	Old	Small	Large	Low	High
	percentages					
Farm assets:						
Under $500,000	71	73	89	45*	83	57*
Over $500,000	29	27	11	55	17	43
	(N=135)	(N=176)	(N=190)	(N=121)	(N=173)	(N=115)
Farm debt:						
Under $100,000	52	68*	73	43*	61	58
Over $100,000	48	32	27	57	39	42
	(N=137)	(N=188)	(N=202)	(N=124)	(N=174)	(N=117)
Debt to asset:						
Less than .25	33	62*	56	41*	42	52
.25 or more	67	38	44	59	58	48
	(N=140)	(N=214)	(N=222)	(N=133)	(N=179)	(N=118)
Gross income:						
Under $100,000	55	80*	86	42*	84	46*
Over $100,000	45	20	14	58	16	54
	(N=129)	(N=174)	(N=188)	(N=115)	(N=176)	(N=117)

*Denotes significant differences were detected between the classes of the particular characteristic, using Chi-square at the 95 percent level of significance.

If CRP Is Not Renewed

A correlation test, using Pearson correlation, was done to determine how respondent's age correlated to possible land use options if CRP contracts expire. The correlation coefficients of age to possible future land options were as follows:

	Age
Maintain in grass	0.030
Use land as pasture or hay	-0.192
Resume crop production	-0.206
Sell the land	0.167
Rent or lease to another farmer	0.298
Use for recreation, hunting, wildlife	0.143

The three categories into which respondents would most likely place their CRP land were pasture/hay, crops, and rent or lease (Table 10). Using the land for pasture/hay showed a negative correlation against age. Older respondents were less inclined to place CRP land in hay or pasture for livestock production.

A negative correlation was indicated also between age and placing the CRP land in crop production if CRP contracts expire. The younger respondents were more inclined to place CRP land in livestock and crop production.

A positive correlation was indicated between age and renting or leasing the CRP land. Older respondents more likely would rent or lease their CRP land after contracts expire.

Summary

Agricultural commodity prices and input prices are important factors in respondents' decisions to enroll in another conservation program. Off-farm employment, the amount of debt, and condition of farm equipment were not important in respondents' decisions to enroll in another conservation program.

The respondent's level of education and age were not positively correlated with re-enrolling in another CRP program. The correlation between age and returning CRP land to pasture or hay and crop production was negative. Younger respondents more likely would return CRP land to livestock or crop production than would older respondents. A positive correlation existed between the age of respondents and renting or leasing the CRP acres to another farmer. The older respondents more likely would rent or lease their CRP acres once contracts expire.

CRP participants are interested in extending CRP contracts. Although considerable variation existed, nearly one-fifth of the respondents would be willing to take a 50 percent reduction in rental payments if permitted to re-enroll in a follow-on CRP program. Some participants would be more willing to trade lower CRP rental payments for the opportunity of enrolling in another conservation program. Ultimately, age will be the major influence in the decisions of CRP participants. If CRP contracts expire, older participants more likely will rent or lease their land while younger participants will farm their CRP land. Wheat will be the likely commodity CRP participants will produce.

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APPENDIX A:

SURVEY INSTRUMENT

November 1992

Dear

The NDSU Department of Agricultural Economics, in cooperation with Extension Service and the Agricultural Stabilization and Conservation Service (ASCS), is interested in learning about your plans, attitudes, and intentions as your CRP contract(s) expire.

You have been randomly selected to receive this questionnaire. Your participation is voluntary. However, your response is important because it represents other farms similar to yours.

Individual responses collected will remain confidential. The data will be used for statistical purposes only and no response will be singled out or individually identified.

We hope you will take the time to complete and return the questionnaire as soon as possible. Please answer the questions as best as you can. We appreciate you cooperation.

Sincerely,

Chester Hill
Graduate Student

Cole R. Gustafson
Associate Professor

Laurence M. Crane
Assistant Professor, Extension

GENERAL INFORMATION

1. Which of the following best describes your relation to the CRP acres covered by your contract(s)? (Check all that apply)

___ Owner and operator
___ Renter and operator
___ Owner but nonoperator (absentee landowner)
___ Other (specify) _____

2. What is your age? (Check one)

___ less than 25 years
___ 25-34 years
___ 35-44 years
___ 45-54 years
___ 55-64 years
___ 65 years or more

3. How much formal education have you had? (Check one)

___ Eighth grade or less
___ Some high school
___ High school graduate
___ Attended college--no degree
___ Undergraduate college degree
___ Attended graduate or professional school
___ Graduate or professional degree

4. Please answer the following questions concerning acres you own or rent. If you own or rent land jointly with another person, report only your share if you can.

	CRP Land	Cropland	Pasture/hay	Other
a. How many acres do you own?	_____	_____	_____	_____
b. How many of these acres do you rent to others?	_____	_____	_____	_____
c. How many acres do you rent from other landowners?	_____	_____	_____	_____

5. How many of your CRP acres currently enrolled were planted to the following crops during the last year the land was farmed? (Again, only report your share if you can.)

Wheat	_____ acres	Hay/alfalfa	_____ acres
Barley	_____ acres	Other crops (specify):	
Corn	_____ acres	_____	_____ acres
Soybeans	_____ acres	_____	_____ acres
Sunflowers	_____ acres	_____	_____ acres

6. How did crop yields on your enrolled CRP land compare with your other cropland not in CRP or other cropland in your area not in CRP? (Circle the percent)

Over 50%	50%	40%	30%	20%	10%	SAME	10%	20%	30%	40%	50%	Over 50%
(----------Lower----------)							(----------Higher----------)					

7. Where is most of your CRP land located? (Check one)

___ On the farm where I live
___ Within 5 miles of residence
___ Between 5 to 20 miles from residence
___ Over 20 miles from residence

8. The following are possible reasons for enrolling land in CRP. Please indicate your level of agreement or disagreement with each statement.

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Able to continue farming without investing in new farm equipment	1	2	3	4	5
More free time for leisure activities or managing remaining land base	1	2	3	4	5
Easiest way to meet conservation compliance	1	2	3	4	5
Close to retirement, want to hold on to land for a longer time	1	2	3	4	5
Most profitable use of land	1	2	3	4	5
Low risk associated with the payments	1	2	3	4	5
Concern for soil erosion	1	2	3	4	5
Provide wildlife habitat	1	2	3	4	5

Other (Specify):_____

9. What effect has participation in the CRP had on your farming business? (Check all that apply)

___ I retired from farming earlier than expected.
___ I avoided going further into debt.
___ I was able to avoid bankruptcy.
___ My net income increased.
___ I avoided additional equipment investments.
___ I purchased more cropland.
___ It has had no effect on my farming business.
___ Other (Specify):_____

10. How have you been using your CRP land? (Check all that apply)

___ No use, just maintenance
___ Emergency hay
___ Personal recreation
___ Posted "No Hunting"
___ Allow strangers free access to hunt
___ Charge strangers for hunting access
___ Other (Specify):_____

11. If CRP is not renewed, what will you do with the land you now have enrolled in the program? Indicate the percent of CRP land that you anticipate will be in each category.

Maintain in grass or trees without haying/grazing	____ %
Use the land as pasture or hay for livestock	____ %
Resume crop production	____ %
Sell the land	____ %
Rent or lease the land to another farmer	____ %
Use for recreation, hunting, or wildlife habitat	____ %
Other (Specify): _____	____ %
	100 %

FARM INPUT USAGE

12. How has enrollment in CRP affected labor time on the farm? (Check all that apply)

___ Able to divert labor to other activities on the farm
___ Use the free time for leisure or family activities
___ Purchase or rent more land to operate
___ Reduce hired labor
___ Engage in off-farm employment
___ Other (Specify): _____

13. Before enrollment in CRP, how did your input costs (fertilizer, chemicals, seed, fuel) for crop production on CRP land compare with your non-CRP land? (Circle the percent)

Over 50%	50%	40%	30%	20%	10%	SAME	10%	20%	30%	40%	50%	Over 50%
(----------LESS----------)							(----------MORE----------)					

14. How has the level or intensity of farm inputs (fertilizer, chemicals, seed, fuel) used on your remaining cropland changed since enrolling in the CRP program? (Check one)

___ increased ___ decreased ___ stayed the same

15. Assume CRP is renewed when your present CRP contract(s) expire and you will be given the same rental payments. How far would current input prices have to drop (all other costs/prices unchanged) before you would consider returning the CRP land to crop or livestock production? (Circle the percent)

Drop in Input Prices

0%	10%	20%	30%	40%	50%	Over 50%

16. How has enrolling in CRP affected your farm equipment inventory? (Check one)

__ Expanded inventory (more equipment, larger equipment)
__ Basically the same (same number and size of equipment)
__ Reduced inventory (less equipment, smaller equipment)

17. Do you currently have adequate farm equipment capacity if you should decide to produce crops or livestock once your CRP contract(s) expire? (Check one)

__ Yes, have adequate farm equipment
__ No, have to increase current inventory

If "No", what farm equipment would you have to purchase? (Check all that apply)

__ Tractor (100-150 hp) __ Tillage equipment __ Trucks __ Livestock
__ Tractor (over 150 hp) __ Seeding equipment __ Combine Equipment

DECISION MAKING

18. While enrolled in CRP, what changes have you made or you are considering in your farm operation? (Check all that apply)

Have Made	Are Considering	
__	__	Sold (or will sell) land
__	__	Bought (or will buy) land
__	__	Rented (or will rent) more acres from other farmers
__	__	Rented (or will rent) more acres to other farmers
__	__	Diversified (or plan to diversify) by adding more crop rotations
__	__	Bought (or will buy) more livestock
__	__	Worked (or will work) at an off-farm job
__	__	Entered more land into the CRP
__	__	Planned to retire from farming

19. Assume CRP is renewed when your present contract(s) expire and you would have the same rental payments. How far would agricultural commodity prices have to increase (all other costs/prices unchanged) before you would consider returning the enrolled land to crop or livestock production? (Circle the percent)

Increase in Agricultural Commodity Prices

0%	10%	20%	30%	40%	50%	Over 50%

20. Assuming the CRP program is not renewed, how important will the following factors be in your land use decision once your CRP contract(s) expire.

	Not Important	Somewhat Important	Moderately Important	Very Important	Extremely Important
Market prices or government price supports for crops that could be grown on CRP acres after the contract(s) expire . . .	1	2	3	4	5
Expected costs of planting, growing, and harvesting crops that could be grown after the contract(s) expire	1	2	3	4	5
Expected land selling price after the CRP contract(s) expire	1	2	3	4	5
Availability of government cost sharing for fencing and water supply so CRP acres can be used for grazing	1	2	3	4	5
Cost of soil conservation practices that may be required if CRP acres are returned to annual crop production	1	2	3	4	5
Productivity and profitability of hay acreage that was previously enrolled in CRP	1	2	3	4	5
Possibility of re-enrolling land in another CRP program	1	2	3	4	5

Other (Specify):_____

_____

ATTITUDES AND BELIEFS

21. Please indicate your level of agreement or disagreement with the following statements. (Circle one number for each statement)

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
I would like to extend my CRP contract(s) for ten more years.	1	2	3	4	5
I would take a reduction in CRP payments to extend contract(s).	1	2	3	4	5
I would extend my CRP contract(s) at a lower rental rate if I was allowed to hay or graze the CRP land.	1	2	3	4	5
Once contract(s) expire, I will grow crops on CRP land.	1	2	3	4	5
Once contract(s) expire, I will use my CRP land to raise livestock.	1	2	3	4	5
I would be interested in permanent CRP contract(s).	1	2	3	4	5
I would be less inclined to extend my CRP contract(s) if ag commodity prices increase.	1	2	3	4	5
I would be more inclined to enroll in CRP again if government commodity payments were to decrease.	1	2	3	4	5
I would like to retire after my CRP contract(s) expire.	1	2	3	4	5
I would be more inclined to enroll in CRP again if more off-farm jobs were available.	1	2	3	4	5
The condition of my farm equipment will affect my decision to enroll in CRP again.	1	2	3	4	5
I have to stay in CRP to pay off debt.	1	2	3	4	5

22. When your CRP contract(s) expire, how important will the following factors be in your decision to farm your CRP land rather than to keep the land in permanent cover? (Circle the number that best describes your feelings for each statement)

	Not Important	Somewhat Important	Moderately Important	Very Important	Extremely Important
Earning more money by planting crops than leaving the CRP acres in permanent cover	1	2	3	4	5
Increased soil erosion when I return CRP acres back to crop crop production	1	2	3	4	5
Decreased free time when I return CRP acres back to crop production	1	2	3	4	5
Losing steady stream of income from government payments	1	2	3	4	5

Other (Specify):_____

_____

FINANCIAL CHARACTERISTICS

23. What percent of your 1991 gross farm income came from the following?

____ % Crops ____ % Livestock ____ % CRP ____ % Other (Specify)_____

24. Indicate the percent of annual net income you received or will receive from off-farm employment before, during, and after CRP.

	% of Annual Net Income
Before CRP	_____ %
During CRP	_____ %
After CRP	_____ %

25. Assume CRP is renewed when your present CRP contract(s) expire and you would be given the same rental payments. How far would current net income have to increase before you would consider returning the CRP land to crop or livestock production? (Circle the percent for each)

	Increase in Current Net Income						
							Over
Crop production	0%	10%	20%	30%	40%	50%	50%
							Over
Livestock production	0%	10%	20%	30%	40%	50%	50%

26. What percent of your total 10-year CRP payments is being/will be spent in the following areas?

	Percent of CRP payment
Farm debt retirement	___ %
Livestock	___ %
Replacing farm machinery and buildings	___ %
Farmland purchases	___ %
Property taxes	___ %
Annual maintenance	___ %
Family living, leisure	___ %
Nonfarm investments and savings	___ %
Other (Specify):_____	___ %
	100 %

27. If CRP rental payments were to decrease, at what percent of your current rental rate(s) would you remove enrolled land from the CRP program? (Circle one number)

Reduction in CRP Rental Rates						
						Over
0%	10%	20%	30%	40%	50%	50%

28. What was the total market value of your farm assets in 1991? (Check one)

__ $0 to $49,999 __ $100,000 to $499,999 __ $750,000 to $999,999
__ $50,000 to $99,999 __ $500,000 to $749,000 __ $1,000,000 or more

29. What was your total farm debt in 1991? (Check one)

__ No debt __ $50,000 to $99,999 __ $250,000 to $499,999
__ $1 to $49,999 __ $100,000 to $249,999 __ $500,000 or more

30. If your CRP land was return to cropland, how much, if any, would you have to increase your debt? _____ %

31. What was your gross farm income in 1991 (including government payments and custom work performed for others, but excluding hunting and oil or gas lease income)? This information is found on Line 11 of Federal Tax Form 1040F.

__ Less than $20,000 __ $40,000 to $99,999 __ $250,000 to $499,999
__ $20,000 to $39,999 __ $100,000 to $249,999 __ over $500,000

32. What was your net cash farm income in 1991 (gross cash farm income less gross cash farm expenses)? (Line 37 on the bottom of Form 1040F)

__ Less than $0 __ $10,000 to $19,999 __ $40,000 to $99,999
__ $0 to $9,999 __ $20,000 to $39,999 __ $100,000 or over

33. Would you like a copy of the results from this survey?

___ Yes ___ No

34. Do you have any additional comments?