Final Report on
Understanding the Local Level Supply Elasticities of Land Cover in the CRP

A Project for the National Pork Producers Council

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Project Goal: To assess the sensitivity of CRP conservation practices to program and agricultural rental rates.

Executive Summary

Those interested in and impacted by CRP policies are often led to consider how proposed policy change recommendations are expected to affect CRP enrollments and the status of contract expirations. In these analyses, assumptions regarding which lands are most likely to re-enroll, newly enroll, or be placed into production are made, often on the assumption that land retired to a grass-type conservation practice is the least costly to install and also the most likely to return to agricultural production in the post-contract period. This focus of this project is to understand how CRP acreage devoted to various conservation covers – i.e. grasses, trees, and habitat – are affected by variations in CRP program payments and also agricultural cash rental rates. To conduct the analyses, I use contract level CRP data from three general signups, county-level data on cropland cash rent expenses from the USDA'S National Agricultural Statistics Service (NASS) Census of Agriculture, and county-level population and income data as controls. Data from nine states (Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, and Wisconsin) are used.

First I considered the acreage supply response of grass, tree, and habitat acres to an increase in cropland cash rent values. When the analysis is limited to grass acres offered during the three general signups, the results suggest that a 1% increase in a county's cropland cash rent will decrease land offered for grass cover acres in aggregate by 0.81%. This effect is tempered when the acres are currently active in the CRP. The practical implication of this estimate is that an increase in returns to crop production will decrease offerings of grass acres, but the impact to current enrollments is smaller than the impact on potential new enrollments. Consistent with that result, the analysis on tree and habitat acres supplied suggests that a 1% increase in cropland rents decreases tree acres and habitat acres by approximately 0.59%. This is a smaller decrease than for grasses acres, likely because returning tree and habitat acres to production is more costly and the producer may perceive greater non-pecuniary environmental and on-farm costs to doing so. A state-by-state analysis reveals that Iowa, Kansas, and Minnesota have the highest supplied-acres response to changes in returns to agricultural production than do the other states. However, the supply responses for tree and habitat acres are larger than for grass, suggesting that landowners may still try to enroll in the CRP but will switch from higher-cost and cost reversion covers to the lower-cost and easier reversion cover of grass.

Second, acreage responses to CRP program payments were estimated. An increase in CRP per-acre rental rates increases the supply of CRP grass acres in nearly every state. However, the impact on tree and habitat acres is puzzling. Negative and statistically significant elasticity estimates for tree and habitat acres implies either landowners are switching from tree and/or habitat to grass or that they are reducing the total acres offered as a result of the rate increase. It is likely that when CRP payment rates increased to reflect higher returns to agricultural production, these returns were not yet reflected in the cropland cash rent values reported by NASS. Overall, it seems the acreage response of habitat and tree covers in the CRP or offerings to idle land to these covers is impacted more than grass acres in the CRP, likely because landowners switch from the more costly and permanent habitat and tree plantings to grass acres. Still, the total supply of grass acres is diminished, implying in isolation they are fairly responsive to changes in returns to agricultural production, as measured by cropland cash rent values.

In interpreting and understanding these results, it is worth nothing that this period in agriculture (1999 – 2001) was marked by fairly consistent and low corn and soybean prices. Since 2008, we have witnessed historically high commodity prices. Therefore, while it is interesting to observe the relatively low acreage response given the price situations in the early 2000s, it is unclear whether the elasticity response would hold in today's agricultural and marketing environment. Elasticity measurements are dependent on the range of prices at which they are being calculated, and it is unlikely that there's a constant elasticity response to the supply of CRP acreage. Updated CRP offers data would permit the extension of these analyses to a period in agricultural history with historically high and volatile commodity prices, particularly in the Corn Belt.

Introduction

In light of current agricultural conditions (i.e. high commodity prices, concerns over feed availability, and budgetary pressures), the Conservation Reserve Program (CRP) and programs like it face much uncertainty as Congress considers the next Farm Bill. Those interested in and impacted by CRP policies are often led to consider how proposed policy change recommendations are expected to affect CRP enrollments and contract expirations. In these analyses, assumptions regarding which lands are most likely to re-enroll, newly enroll, or be placed into production are made, often on the assumption that land retired to a grass-type conservation practice is the least costly to install and also the most likely to return to agricultural production in the post-contract period. This is certainly plausible and an appropriate way to proceed when data are limited. A logical extension that can enhance these types of analyses would be an effort to understand and quantify the elasticity of landowners' supply of conservation practices relative to program rental rates and returns to agricultural production. These supply elasticities will permit us to more accurately gauge expectations of CRP enrollments and expirations as a result of changes in the agricultural economics and proposed policy changes that affect CRP payments.

This focus of this project is to understand how CRP acreage devoted to various conservation covers – i.e. grasses, trees, and habitat – are affected by variations in CRP program payments and also key indicators in the agricultural economy that affect agricultural cash rental rates. To conduct the analyses, I use contract level CRP data from three general signups, county-level data on cropland cash rent expenses from the USDA'S National Agricultural Statistics Service (NASS) Census of Agriculture, and county-level population and income data as controls. Data from nine states with relatively large CRP enrollments and varying proportions of their total enrollments in grasses, trees, and habitat are used. These states are Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, and Wisconsin. The empirical analyses are linear regressions of the CRP acreage enrolled in grasses, trees, and habitat cover on things believed to influence the number of acres idled in the program. The primary focus is on measuring the effect on enrolled acres in each conservation cover type from agricultural land rental rates, CRP rental rates, whether the acreage was previous in the CRP, and the perceived environmental provision of the acreage. This is conducted both by pooling enrollments across

the nine states and also considering each state's enrollments separately to account for any fixed effects specific to the individual states.

Contract-level CRP data is protected by the federal Privacy Act and Freedom of Information Act (FOIA). Section 1619 of the 2008 Food, Conservation, and Energy Act (2008 Farm Bill) prohibits the release of information concerning agricultural operations and farming or conservation practices when information is provided by producers to participate in USDA programs; therefore, access to the most recent contract-level CRP data was not feasible during the contracted period of this project. In lieu of recent enrollment data, the analyses are based on enrollments from CRP general signups 16, 18, and 20 during 1999, 2000, and 2001, respectively. The proportion of current enrollments in each of grasses, trees, and habitat for each state were compared with the proportions from the general signups 16, 18, and 20 to ensure that significant relative shifts in enrollment acres had not occurred; they have not. For purposes of the empirical analyses, the 2008 county cash cropland rent values were scaled to reflect 2000 levels based on the changes in the state averages during that same time. In this way, CRP rental rate data can be matched with the county average cash rental rates for cropland during the same years.

Summary Information about CRP Conservation Covers and Payments

The nine states that were chosen for the analysis account for approximately 33% of total enrollments during this time and 43% of the total program payments when continuous signup CRP payments are included. Figures 1 and 2 are plots of each state's CRP acreage average CRP rental rate from 1996 through 2012 based on the USDA summary files.[1] Tables 1a, 1b, and 1c summarize the contract-level CRP data by state and general signup period used herein.[2] The contract data are offers to enroll land into the CRP by landowners. Offers are used in place of actual enrollments because the interest is in identifying enrollment responses by landowners, not just enrollments that are selected through budgetary and programmatic rules which limit the

[1] Continuous signup contracts are not considered in the empirical analyses but are included in the summary data from the USDA.

[2] In the analyses, offers from the three signup periods are considered as one event; there is no by-signup breakout or time series component to the analysis. The signups occurred in consecutive years under the same programmatic rules (1996 Farm Bill).

acres that are accepted. In this way, the focus is on measuring impacts to landowners' demonstrated willingness to enroll acres. In some cases the offer is for a parcel of land already enrolled – these are the acres under active CRP contracts. In other cases, the offer represents the commitment to enroll productive agricultural land into the program.

The interpretation of the results that follow will be conditioned on whether the acreage is a new enrollment or re-enrollment. The enrollment decision is slightly different than the re-enrollment one when conversion to and from agricultural production is costly, as is particularly the case with tree plantings and some habitat covers. In these states, varying proportions of grass, trees, and habitat cover were offered for enrollment during the 1999, 2000, and 2001 general signups. At least some of the changes in proportions of covered within a state over time may be due to program incentives that target the more environmentally sensitive land and more aggressive covers (trees and habitat).

The Environmental Benefits Index (EBI) is a quantitative index of the expected environmental benefits from enrolling the parcel in the CRP and installing the cover type(s) proposed by the landowner. The USDA uses the EBI values to decide which offers to accept for enrollment. The EBI score includes the things affected by the cover chosen, location of the parcel, and the parcel's fixed characteristics (i.e. slope, soil types, proximity to populations, and proximity to water). Since some of these EBI ranking factors and scores have little to do with the choice of conservation cover made by the landowner, a measure of the "environmental" EBI (EEBI in the summary table) is an attempt to isolate the ranking factors that have most do with the cover type chosen. Therefore, the higher is the EEBI relative to the EBI for a given contract offer, the more likely it is that the cover involves more intensive efforts to maintain or install, and is more likely to persist beyond the original contract period into future contracts.

The CRP rental rate data and cropland cash rent data are summarized in the last three columns of Table 1a, 1b, and 1c.[3] Each CRP offer includes information about the per-acre maximum rental rate the landowner could have asked for – "max rental rate" – and the per-acre rental rate the landowner offered to enroll his acres – "CRP bid." In many cases the CRP bid is less than the

[3] The CRP rental rate data are offer-specific, while the cropland cash rent data are county-level values from NASS. The lands offered for enrollment in the CRP may not be representative of the distribution of types of acres in a county.

CRP maximum rental rate because landowners can increase their probability of acceptance into the program by reducing their bid, which gives them more EBI points. In Colorado, Kansas, and to some degree Wisconsin, the county average cash rental rate for cropland is less than the maximum rental rate the average parcel brings in the CRP.

Table 2 contains summary statistics of offers data and cropland cash rent data by signup for the nine states used in the analyses. Approximately 30% of the offers to enroll during the 16th signup were for currently active contracts. In signups 18 and 20, reenrollments were 27% and 20%, respectively. The maximum rental rates, CRP bids, and cropland rent values all increased slightly during this period, but not in a significant way. A parcel's non-cost EBI score provides a proxy for the level of environmental benefits associated with the parcel and cover type. It also helps control for parcel-level heterogeneity among offers that may affect the acreage response to change in agricultural land rents and CRP rates. To the extent that a parcel's EBI is higher because of the intensity of the conservation practice or environmental fragility of the parcel, the acreage response to price indicators in the agricultural economy should be tempered.

CRP Acreage Responses to Cropland Rent Values

The relationship between the acreage supplied (offered) by landowners to enroll in the CRP and CRP rental payments and agricultural cropland cash rent values is estimated using linear regression techniques. The agricultural cropland cash rent values are the non-irrigated cropland rent expenses in the NASS Census of Agriculture for each county based on the three predominant crops reported for that county. The cropland rent values proxy for the returns to agricultural production. When the returns to agricultural production increase, more landowners will find agricultural production to offer a higher expected return than enrolling in the CRP and getting a fixed per-acre rental rate. Conversely, when returns to agricultural production are low, cropland cash rents decrease and the decision to idle land in the CRP looks more attractive, particularly on lower-productivity parcels. Thus, the interest here is in measuring the response of offered acreage to variations in cropland returns (rents) and CRP rental rates and, further, to identify the relative size of the acreage responses for various cover practices in the CRP.

Table 3 contains the partial set of regression results when fixed effects are used to capture state-level heterogeneity that may impact the offering of CRP acres. When the analysis is limited to grass acres offered during the three general signups, the results suggest that a 1% increase in a county's cropland cash rent will decrease land offered for grass covers in the CRP by 0.81%. This is the usual interpretation of elasticity. This effect is tempered when the acres are currently active in the CRP, as indicated by the positive coefficient estimate on the interaction term of active contracts and county cropland rent. The practical implication of this estimate is that an increase in returns to crop production will decrease offerings of grass acres, but the impact to current enrollments is smaller than the impact on potential new enrollments. This makes intuitive sense. Consistent with that result, the analysis on tree and habitat acres supplied suggests that a 1% increase in cropland rents decreases tree acres and habitat acres by approximately 0.59%. This is a smaller decrease than for grasses acres, likely because returning treed and habitat acres to production is more costly and the producer may perceive greater non-pecuniary environmental and on-farm costs to doing so. Therefore, the supply elasticity of habitat and tree acres is smaller than that for grass acres in the CRP.

Because the agricultural economic conditions are not homogenous by state – particularly because the selected states do not necessarily have the same predominant crops – it is better to consider these relationships at the state level. Table 4 provides the supply elasticities for grasses, trees, and habitat acres. The values in the table represent the % change in grass, trees, or habitat acres from a 1% increase in cropland rent values in the parcel's county. Comparison of the supply elasticities for grass acres reveals that Iowa, Kansas, and Minnesota have the highest supplied-acres response to changes in returns to agricultural production than do the other states. Typically an elasticity value of 1.0 indicates relatively elastic supply relationships while elasticity under 1.0 indicates an inelasticity of supply. The greater is the absolute value of the supply elasticity, the more elastic supply is said to be.

The tree and habitat supply elasticities are somewhat puzzling. We would expect to see a smaller acreage response in trees and habitat compared with grasses, but this is not the case for many of the states presented here. One explanation for why this might be the substitution of habitat and tree acres for grassed acres. The supply of grass acres in the CRP should be fairly responsive to cropland rent values; however, this did not come through in the analysis. What has not been

accounted for is that landowners can offer grass acres in lieu of habitat or tree acres, thus making it seem like habitat and tree acres are highly responsive while grass acres are not. Another possible explanation is that tree and habitat acres are often result in higher program payment incentives, so perhaps the link between returns to commodity production and the supply of acres is less straightforward and not accurately reflected here. Also, habitat acres in Iowa and Kansas may be installed on the less marginal land (less slope to the parcel, perhaps) and so conversion to production in these areas is not costly.

CRP Acreage Responses to CRP Payment Rates

Acreage responses to CRP program payments – the per-acre annual rental rate that a landowner can bid – are reported in Table 5. The values in the table represent the % change in grass, trees, or habitat acres from a 1% increase in CRP rental rates. It should be noted that the CRP rental rates are chosen by the landowner and are often lower than the maximum rental rate s/he can bid. I use these values because of the strong correlation between maximum rental rates and bids in the CRP and also because acreage decisions are made based on the rental rate at which the landowner believes he can successfully enroll. With the exception of Colorado, an increase in a parcel's CRP rent value, after controlling for any increases in other opportunity costs like the returns to agricultural production, results in an increase in the supply of CRP grass acres in these states. However, the impact on tree and habitat acres is less obvious. Negative and statistically significant elasticity estimates in the tree and habitat columns suggest that the acreage responses in those cases are negative. Whether this represents a simple switch from tree and/or habitat to grasses or a reduction in total acres offered as a result of the price increase is unclear. It is also possible that the effect being picked up is that CRP payment rates increased to reflect higher returns to agricultural production that had not yet been reflected in the cropland cash rent values reported by NASS.

Concluding Remarks

This project sought to estimate the relationship between returns to production – proxied by cropland rent values – and the supply of various covers in the CRP. Grassed acres in the CRP

are often the first acres to be removed when returns to agricultural production increase, and this analysis supported that on some level. However, for many states, the elasticity or response was relatively low. Overall, it was also shown that the acreage response of habitat and treed CRP acres or offerings to idle land to these covers is impacted more than grass acres. This suggests that landowners switch from the more costly and permanent habitat and tree plantings to grass acres. Still, the overall supply of grass acres is diminished, implying in isolation they are fairly responsive to changes in returns to agricultural production, as measured by cropland cash rent values.

In interpreting and understanding these results, it is worth nothing that this period in agriculture (1999 – 2001) was marked by fairly consistent and low corn and soybean prices. Since 2008, we have witnessed historically high commodity prices. Therefore, while it is interesting to observe the relatively low acreage response to given the price situations in the early 2000s, it is unclear whether the elasticity response would hold in today's agricultural and marketing environment. Elasticity measurements are dependent on the range of prices at which they are being calculated, and it is unlikely that there's a constant elasticity response to the supply of CRP acreage.

Figure 1. CRP State Acreage: 1996 – 2012 (Source: USDA Farm Service Agency, 2013)

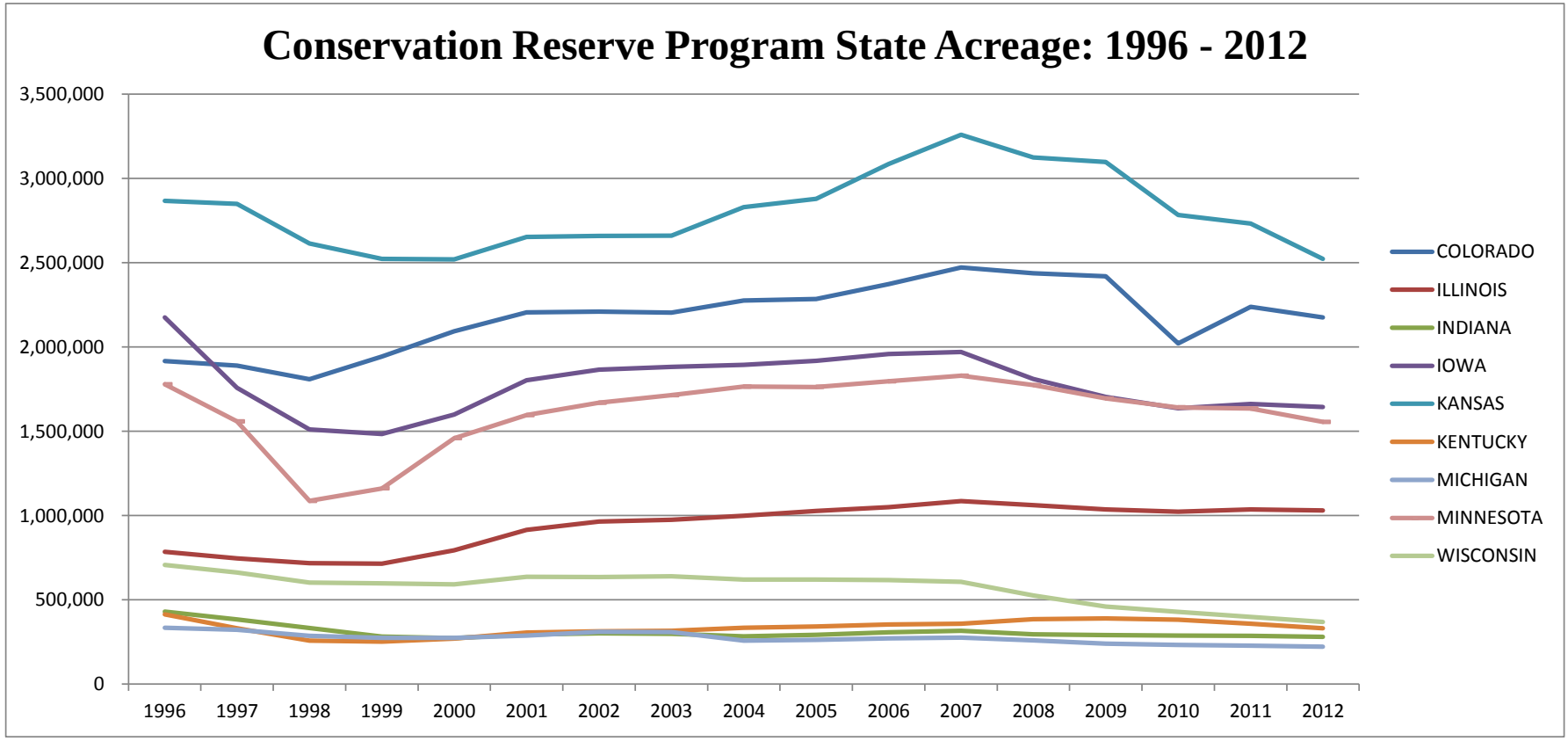

Figure 2: State Average CRP Payment: 1996 – 2012 (Source: USDA Farm Service Agency, 2013)

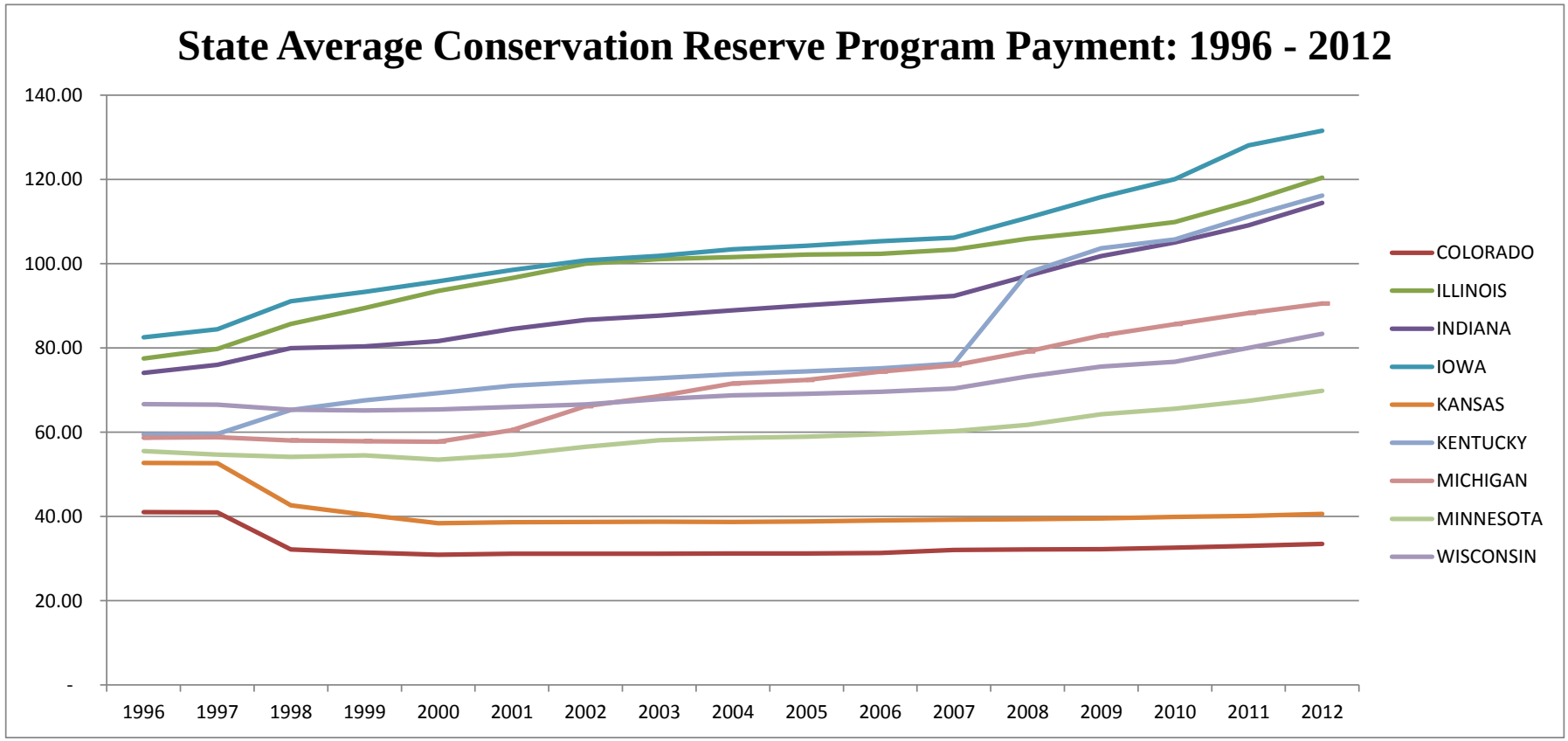

Table 1.a Signup 16 (1999)

State	State Code	Acres Offered for Enrollment	% Acres Under Active CRP Contracts	% Acres - Grass	% Acres - Trees	%Acres - Habitat	% Acres - Other	Avg EBI	Avg EEBI	Avg CRP Max Rental Rate ($/acre)	Avg CRP Bid ($/acre)	County Cropland Rent ($/acre)
COLORADO	8	506,190	25.7%	78.76%	0.02%	21.23%	0.00%	172	99	34.36	32.75	19.04
ILLINOIS	17	203,016	35.1%	65.59%	8.31%	23.49%	2.62%	183	116	92.61	81.01	93.68
INDIANA	18	91,298	45.7%	86.91%	5.97%	4.13%	2.98%	170	110	82.32	75.69	87.35
IOWA	19	446,461	32.0%	58.23%	1.38%	38.75%	1.64%	195	121	108.85	92.43	108.68
KANSAS	20	544,927	51.5%	99.11%	0.07%	0.77%	0.05%	153	91	42.25	40.48	32.53
KENTUCKY	21	76,554	20.2%	95.97%	3.74%	0.19%	0.10%	172	129	73.52	68.03	74.30
MICHIGAN	26	70,798	31.6%	73.52%	7.25%	18.69%	0.54%	166	103	58.29	51.25	62.72
MINNESOTA	27	519,989	17.6%	53.23%	2.76%	31.23%	12.78%	194	106	69.44	61.63	68.53
WISCONSIN	55	169,005	34.0%	82.57%	12.25%	2.47%	2.71%	186	120	69.51	61.75	63.34

Table 1.b Signup 18 (2000)

State	State Code	Acres Offered for Enrollment	% Acres Under Active CRP Contracts	% Acres - Grass	% Acres - Trees	%Acres - Habitat	% Acres - Other	Avg EBI	Avg EEBI	Avg CRP Max Rental Rate ($/acre)	Avg CRP Bid ($/acre)	County Cropland Rent ($/acre)
COLORADO	8	341,465	41.4%	73.44%	0.02%	26.48%	0.05%	181	99	35.12	34.45	23.14
ILLINOIS	17	149,716	26.7%	61.35%	8.22%	27.04%	3.39%	192	112	94.83	85.94	100.33
INDIANA	18	60,991	30.2%	78.45%	7.81%	9.86%	3.87%	172	99	85.59	78.91	85.81
IOWA	19	283,519	31.3%	38.36%	1.23%	58.41%	2.00%	211	131	110.76	99.89	113.01
KANSAS	20	544,527	50.3%	85.71%	0.05%	14.00%	0.24%	162	77	43.23	42.02	36.21
KENTUCKY	21	40,008	14.5%	93.76%	4.59%	1.59%	0.06%	188	123	74.30	70.54	75.24
MICHIGAN	26	42,523	30.0%	63.49%	6.96%	29.09%	0.46%	158	82	61.56	56.44	64.19
MINNESOTA	27	583,006	14.6%	25.24%	1.99%	49.28%	23.49%	186	86	61.20	57.36	59.72
WISCONSIN	55	114,154	38.4%	75.91%	12.73%	7.14%	4.22%	169	95	70.13	64.29	68.02

Table 1.c Signup 20 (2001)

State	State Code	Acres Offered for Enrollment	% Acres Under Active CRP Contracts	% Acres - Grass	% Acres - Trees	%Acres - Habitat	% Acres - Other	Avg EBI	Avg EEBI	Avg CRP Max Rental Rate ($/acre)	Avg CRP Bid ($/acre)	County Cropland Rent ($/acre)
COLORADO	8	135,021	1.4%	86.35%	0.14%	13.27%	0.24%	178	87	36.17	35.73	24.29
ILLINOIS	17	117,546	12.8%	70.32%	7.88%	19.41%	2.39%	203	120	95.16	85.95	100.26
INDIANA	18	43,746	16.2%	74.98%	9.51%	11.08%	4.43%	170	97	87.76	80.77	88.14
IOWA	19	221,835	8.7%	65.61%	1.20%	29.45%	3.74%	216	129	112.84	103.98	113.67
KANSAS	20	232,235	2.2%	75.27%	0.15%	24.33%	0.25%	162	75	44.74	43.10	36.46
KENTUCKY	21	46,131	9.3%	94.85%	3.34%	1.80%	0.01%	200	125	75.56	73.14	77.75
MICHIGAN	26	36,355	29.6%	70.64%	8.48%	20.37%	0.51%	161	83	65.31	57.58	62.15
MINNESOTA	27	215,477	4.8%	31.18%	2.90%	31.42%	34.50%	181	88	67.28	62.98	71.34
WISCONSIN	55	91,338	16.5%	73.89%	14.94%	9.17%	2.01%	181	100	68.74	63.02	65.67

Table 2. CRP Offers Data Summary

	Signup 16 (1999)				
Variable	# Obs	Mean	Std Dev	Min	Max
Active CRP Contract	86041	0.30	0.46	0	1
EBI	86041	175.23	42.44	17	339
EEBI	86041	107.57	37.59	4	229
EEBI/EBI	86041	0.61	0.14	0	1
CRP Max Rent	86041	74.14	29.74	9	165
CRP Bid	86041	67.28	25.53	9	165
County Cropland Rent	86041	71.71	35.73	0	173
Population (county)	86041	38538.65	61439.55	0	1194156
Income (county)	86041	37445.94	6870.95	0	91210

	Signup 18 (2000)				
Variable	# Obs	Mean	Std Dev	Min	Max
Active CRP Contract	11842	0.27	0.44	0	1
EBI	11842	197.02	49.23	24	340
EEBI	11842	101.19	39.31	8	226
EEBI/EBI	11842	0.51	0.15	0	1
CRP Max Rent	11842	78.73	28.60	8	165
CRP Bid	11842	70.69	25.15	8	165
County Cropland Rent	11842	77.41	32.89	0	173
Population (county)	11842	50905.58	65436.25	0	1116200
Income (county)	11842	39481.24	7678.15	0	77949

	Signup 20 (2001)				
Variable	# Obs	Mean	Std Dev	Min	Max
Active CRP Contract	53551	0.20	0.40	0	1
EBI	53551	196.86	38.26	27	339
EEBI	53551	104.44	37.82	4	229
EEBI/EBI	53551	0.52	0.12	0	1
CRP Max Rent	53551	81.18	32.28	9	165
CRP Bid	53551	73.60	27.73	9	165
County Cropland Rent	53551	79.11	37.43	0	173
Population (county)	53551	32250.13	47338.96	0	1116200
Income (county)	53551	37608.61	7321.86	0	91210

Table 3. Estimated Effect on CRP Acreage

	Grass		Trees		Habitat	
Variable	Coeff Est	Std Err	Coeff Est	Std Err	Coeff Est	Std Err
Bid	0.283	0.021	-0.149	0.050	-0.413	0.039
EBI	0.240	0.015	0.145	0.040	2.155	0.041
County Cropland Rent	-0.815	0.018	-0.589	0.043	-0.590	0.030
Active CRP Contract	-0.477	0.061	-1.074	0.220	-2.143	0.135
Active & County Cropland Rent	0.150	0.015	0.305	0.051	0.529	0.031
EEBI/EBI	0.185	0.016	-0.538	0.034	-1.285	0.035

*Regression analyses used the logged values of all continuous variables

Table 4. Cropland Rent Elasticity of Supply of CRP Acres

	Grass		Trees		Habitat	
State	Coeff Est	Std Err	Coeff Est	Std Err	Coeff Est	Std Err
CO	-0.707	0.113	-2.760	0.746	-2.450	0.312
IL	-0.774	0.044	-0.404	0.102	0.730	0.083
IN	-0.652	0.083	0.338*	0.222	0.642	0.247
IA	-1.728	0.115	1.163	0.512	-3.304	0.174
KS	-1.124	0.052	-1.824	0.625	-1.131	0.098
KY	-0.366	0.075	-1.567	0.353	-0.447	0.155
MI	-0.322	0.067	1.01*	0.131	0.905	0.115
MN	-0.965	0.041	-0.427	0.075	-0.629	0.051
WI	-0.336	0.052	-0.738	0.086	-1.030	0.113

*Not statistically significant at the 5% level.

Table 5. CRP Payment Elasticity of Supply of CRP Acres

	Grass		Trees		Habitat	
State	Coeff Est	Std Err	Coeff Est	Std Err	Coeff Est	Std Err
CO	-0.193	0.118	-0.039*	0.394	1.298*	0.381
IL	0.375	0.058	-0.193*	0.138	-1.015	0.109
IN	0.567	0.091	0.474	0.191	-1.241	0.278
IA	0.535	0.057	-0.210*	0.184	0.162	0.073
KS	0.464	0.053	1.794	0.674	0.874	0.112
KY	0.432	0.122	1.353	0.486	0.731	0.253
MI	0.332	0.070	-0.388	0.139	-0.447	0.139
MN	0.055*	0.051	-0.620	0.098	-0.689	0.071
WI	0.549	0.054	0.049*	0.079	0.119*	0.129

*Not statistically significant at the 5% level.