

Rice County Farmers & the Conservation Reserve Program:

Comparing Congressional & Local Perspectives

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Senior Comprehensive Exercise

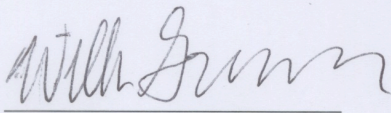
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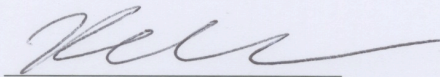
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Abstract

The Conservation Reserve Program was created in the 1985 Farm Bill with the goals of reducing erosion, managing commodity surplus, and creating wildlife habitat through the retirement of agricultural land from production. This study investigates the motivations for Rice County farmers' participation in the Conservation Reserve Program and compares them to legislative intent for the program, as well as exploring the values that are important for motivating farmers' practices of conservation. We collected data from interviews with farmers and congressional hearings between 2001 and 2008, using thematic categories to organize and analyze each groups' opinions. Our results showed significant overlap between congressional and farmer values, despite a disconnect in practice, as many farmers mentioned the inability of the federal government to implement effective and timely policies. This disconnect has had the effect on farmers of pushing them towards individual conservation action, using the CRP in a wide variety of ways to address specific conservation issues on their land.

Introduction

The Conservation Reserve Program (CRP) was formally established in the 1985 Farm Bill, and was designed primarily to address the issue of soil erosion on agricultural land. Soil erosion causes the removal of nutrient-rich topsoil, which can cause lower crop yields and higher production costs for farmers (Lal, 2001). Topsoil can take hundreds to thousands of years to form, since many of its nutrients are derived from the breakdown of organic materials over time by soil microbes, making it irreplaceable by natural means within most human timeframes (USDA, 2003). The CRP is meant to facilitate erosion reduction through the process of retiring environmentally sensitive and highly erodible lands from crop production, using rental payments to farmers for each acre they enroll in the CRP as an incentive. The establishment of the CRP marked the beginning of modern agricultural policies designed specifically to address conservation challenges (Coppess, 2017). Although CRP was initially conceived primarily to protect soil resources, the conservation focus of CRP has since shifted to emphasize water quality and wildlife habitat in addition to soil quality (Zinn, 1987). Initially after the introduction of the program, Rice County CRP acreage and enrollment skyrocketed to 30,000 acres as farmers sought monetary compensation for leaving their land out of production, but after the establishment of an acreage cap at the national level in 1990, enrolled acreage dropped by nearly half before leveling out in 1999 (USDA, 2016; Fig 1). Over the past 10 years, the number of acres enrolled in the CRP in Rice County has been declining again, from 17,956 acres in 2007 to 12,069 acres in 2016, with 25-70% of farmers not renewing their CRP contracts each year (Fig. 1; USDA, 2017).

Occurring alongside this decline in the CRP was the incorporation of several other conservation-focused government policies and programs that currently help farmers practice conservation. The Natural Resource Conservation Service (NRCS), an agency of the USDA, is currently executing the Environmental Quality Incentives Program (EQIP), a cost assistance program for farmers, which encourages the implementation of “structural and management conservation practices that optimize environmental benefits on working agricultural land” (USDA, 2017). The Conservation Stewardship Program (CSP) is another NRCS program that encourages conservation of soil, water, air, and other natural resources by offering financial and technical assistance to adopt conservation activities (USDA, 2017). A major difference between these conservation initiatives and the CRP is that these occur on working land, while the CRP retires land from agricultural use. Other conservation-based policies are fairly recent developments, including the 2015 Minnesota State Buffer Law, and the Minnesota Department of Agriculture’s proposed Nitrogen Fertilizer Rule, expected to take effect in the fall of 2018. Another voluntary conservation program, Minnesota’s Agricultural Water Quality Certification Program, has been present in Rice County for about a year now, and as of October 9, 2017, 9 farmers covering 7,536 acres are certified in Rice County (Claire LaCanne, Rice County Extension Office, personal communication, October 16, 2017), which was a “really good showing in only about one year of operations” (Brad Redlin, MDA, personal communication, October 24, 2017). Over the course of our research, many farmers have stated in interviews that farming practices have changed significantly over the past 20 years or so. The moldboard plow is no longer ubiquitous, and farmers have been slowly moving over to no-till, cover crops, and implementation of soil conservation structures. In addition, 24% of the questions received by the

local extension office between May 1, 2017 and October 23, 2017 have been about conservation practices, indicating that interest in conservation practices remains high.

The formation and support of these conservation programs and organizations, the volume of questions directed to the extension office, as well as discussions with farmers who have recently converted to conservation-based practices such as cover cropping, indicate that there remains high levels of interest in conservation initiatives among farmers in Rice County, despite the fact that CRP involvement is declining. These changes in enrollment place us in a situation where it is imperative to understand what farmers prioritize in terms of conservation and resource management. Discussion with farmers suggested that the goals of the CRP do not precisely align with the same values that are important to farmers in terms of conservation. Farmers we have spoken to have freely discussed the importance of conservation practices, but have not brought up the CRP as a key strategy for conservation. This study is especially relevant, since farmers expressed feelings of being misunderstood by the public several times over the course of our research. One farmer said, “a lot of times they point fingers at farmers for the stuff that they do...I do get a little defensive...I just wish more people could understand how all of that goes instead of pointing fingers and saying, ‘God, you’re doing a terrible job out there [...] We’re not the bad guys, we’re just trying to make a living out here, because it’s hard.’” The general public does not have an understanding of how farmers make decisions, yet it is essential that we attempt to understand farmers’ conservation priorities and their relationship with the CRP in order to develop more effective conservation policies.

Literature Review

Previous investigations into motivations for conservation behaviors in farming have looked at a number of factors. We place our study within the broader framework that seeks to understand the cultural motivations that work alongside and sometimes against economic interests. Economic considerations are important factors that do contribute to decision-making in many cases. Two previous studies which focused on understanding motivations for farmers’ conservation behavior, Cary & Wilkinson (1997) and Honlonkou (2004), both found that economic rationality and consideration of profits played a large role in determining whether or not farmers adopted certain conservation practices. Cary & Wilkinson (1997) used a logistic regression model to compare prior perceptions and perceived profitability of conservation practices, while Honlonkou (2004) used a model based on resource management technology to arrive at the same conclusion that financial considerations were the foremost drivers of adopting conservation practices, among other factors. However, this kind of economic cost-benefit analysis does not tell the full story in explaining farmer motivations. For example, “rational economic decisions” can be realized in very different ways. Murray and Bannister (2004) systematically describe the findings from multiple case studies of an agroforestry project in Haiti in which participants were motivated by economic reasoning. However, this did not manifest as planting and harvesting trees in an extractive way as a cash crop, but instead caused them to care for many of the trees into the long-term. Soil conservation was a major goal of the project, and tree-planting had previously been pitched by earlier project planners as a measure that should be taken to “save nature.” This was later shifted to reflect farmer interests by characterizing trees as a crop. By planting trees, tree farmers were able to store value and create a safety net that could be drawn from later. The term ‘economic’ may also be broadened beyond money in this case. Researchers observed “tree planters for the first time in Haitian history ‘growing’ parts of

their houses, particularly posts and rafters. No cash is generated in such self-use; but money is saved” (388). Therefore, the term “economic” may be complicated to include adopting conservation behaviors that conserve resources for later, as well as living off the land. These are important components to the decision-making process that may be masked by more straightforward conceptualizations of economic-based decisions.

Murray and Bannister therefore demonstrate the ways in which anthropology can be harnessed to reveal the cultural systems that govern decision-making, including economic decisions. Similarly, Blount & Pitchon (2007) recognize the hierarchies within academic disciplines that place other disciplines, such as anthropology as merely modifiers of economics. These hierarchies give little weight to culture¹ or way of life in determining resource management strategies, yet Blount and Pitchon make the argument, by reviewing literature on MPAs (Marine Protected Areas), that “way of life can, and often does, trump ‘rational economic actor’” (110). Their review of MPAs reveals that economic frameworks are given primacy in conservation models, and they have been shown to obscure other important motivations. In practice, people often do not make decisions according to rational economic models. This is exemplified by “The Ultimatum Game” used by experimental economists to study the tradeoff between selfishness and fair play. In this game, one of two anonymous people is randomly given the ability to choose how to split a sum of \$100 between the two of them. The other person must either accept or reject the offer. If rejected, neither participants receive any money. The rational economic actor would offer a small amount to the other player or accept any deal if they are the responder, for it would be better than nothing, but that is not how most people play the game. Two thirds of offers are between 40 and 50 percent of the pot, and only four people in 100 offer less than 20 percent. More than half of all responders reject offers that are less than 20 percent. Results of experiments using this game have demonstrated that humans are not always coldly logical when it comes to economic decision-making and may instead prioritize other considerations, such as fairness (Sigmund et al., 2002).

Our review of the literature exposes several themes that may explain the motivations behind farmers’ conservation practices. The first of the themes we will explore is personal identity, which can have a large impact on farmer practices. Paxton (2006) used ethnographic methods to focus on the cultural meanings embedded in artisanal cheese production, and found that the product itself was secondary to the values wrapped up in it: nostalgia and the pursuit of a rural identity, which had very large impacts on farm operations (Paxton, 2006). Burton (2004) and Mcguire et al. (2012) both studied what they called “good farmer identity”² and its interaction with the adoption of conservation-based programs. To illustrate how performance-based environmental management interventions create a new social situation and influence farmer identity, Mcguire et al. (2012) used a combination of interviews and surveys of three farmer led watershed groups in NE Iowa. During the study, farmers ran tests assessing the impact of their practices to their local watershed. Extension specialists suggested some appropriate management practices to address the issues, and farmers then implemented the ones

¹ Culture is defined by Geertz (1973) as “webs of significance” surrounding mankind. In order to understand cultural phenomena, we must engage in ethnographic methods that provides “thick description” of the context. Culture is therefore, a context that can be thickly described.

² Identity is defined as the set of meanings held by each individual that defines one’s place in society. Individuals have multiple identities, activated by the social context (Mcguire et al., 2012).

they thought would best address the water quality issue on their farms and recorded the results. Successes and failures were then discussed by the entire farmer watershed group at meetings. This provided the social situation feedback loop. The researchers analyzed this process to determine the extent to which the social identity standard of the participating farmers shifted over time. Interviews of 9 farmers were conducted from 2005-2008 and used to track how farmers identified themselves and changed their farm management practices. Interviews were transcribed and independently coded by the authors to identify themes and then reconciled to reduce coding bias. The researchers eventually found that inclusion in conservation-focused groups caused farmers to recognize their own acts of pollution. This led to a shift in behavior and the inclusion of stronger conservation standards within the “good farmer identity.” Therefore, McGuire et al.’s study argues that engaging in conservation programs, such as CRP, has the potential to influence how farmers view their role in terms of conservation.

However, this positive relationship between conservation programs and farmer conservation practices does not always exist. Farmers’ perceptions of their own roles have not always followed in the wake of government policies. In fact, conservation-based policies have been met with considerable resistance from farmers when they conflicted with these deeply rooted identities (Burton, 2004). Burton conducted semi structured interviews based around a number of pre-selected themes. The interviews were done in two sets, and findings from the first set of interviews were used to select participants for the second interview, following the hypothesis that different farmer types have different assessments of “good farmer” identity. The interviews were analyzed using grounded theory analysis, the process of building a narrative that interprets interview results via the connections between codes, or themes, in each of the interviews. Burton found that farmers’ identities surrounding production-oriented behavior caused them to reject a policy that addressed the perceived need for land regeneration. Their ideas about what makes a “good farmer” were centered around their everyday utilitarian behaviors such that high yields and attractive crops were seen as markers of good farming. These production-oriented identities can be interpreted as another factor causing resistance to conservation-based programs.

Other cultural factors, specifically values placed on natural resources, can also be motivators of adoption of conservation practices. A study by Reimer and Prokopy (2013) conducted both interviews and surveys to explore farmer participation in all U.S. Farm Bill programs in Indiana. This study intentionally used exploratory and inductive methods, administering interviews and then analyzing them using codes to identify the presence of major themes. The qualitative data was organized and analyzed using NVivo software. The study found that farmers are motivated to participate chiefly by the environmental benefits of the practices, not the monetary incentives (Reimer & Prokopy, 2013). Several of the farmers interviewed indicated that their primary motivation in installing filter strips was to protect water quality. Similarly, farmers who had installed wildlife habitat practices through CRP were interested in promoting wildlife habitat. In addition, five farmers specifically mentioned soil conservation as a motivation for participation (Reimer & Prokopy, 2013). Roesch-Mcnally et al. (2017) found that farmers create a “soil stewardship ethic” that emerges from their experiences of soil loss due to weather events and comparisons to the farming practices of neighbors. They administered in-depth interviews with farmers that were recorded and transcribed. The researchers used a grounded theory approach and focused on farmers’ discussions of soil health and erosion prevention and their reported strategies for reducing weather-related risks. Interviews were coded

to develop emerging themes and categories. This “soil stewardship ethic” emerging out of their analysis is seen as an adaptive mechanism that allows farmers to consider the long term impacts of their management choices, bridging the gap between short term productivist goals and long term conservation goals. The researchers argue that the process of beginning to adopt conservation practices leads to identity shifts, and could change farmers’ conceptions of what good farming looks like (Roesch-Mcnally et al., 2017).

Farmers may also be influenced by informational networks. Talking to and observing their neighbors is an important way to both learn about new practices and establish identities. Burton (2004) noted that “the act of social information gathering has become a status symbol in itself” (204). Farmers look to what their neighbors are doing to compare practices and establish whether or not each one is a “good farmer.” The potential for criticism from neighbors can also be an important motivator in determining farming practices (Burton, 2004). This concept can also apply to conservation practices. Roesch-Mcnally (2017) observed that “In many cases, observations of neighbors and other cropland in their community inspired farmers to have confidence in their own conservation practices and ethics, which they might articulate as being “better” for the soil than what certain neighbor were doing [...] These farmers used their observation of neighbors’ practices to affirm their own conservation efforts” (15). McGuire et al. (2012) also emphasize that sharing information may be important in shifting conservation behaviors. During their case study of a performance-based environmental management intervention, farmers with strong conservationists identities helped other farmers with strong productivist identities feel comfortable taking risks in trying new conservation techniques. This points to the importance of information networks and communication in shifting farmer’s conservation practices.

Schewe and Stuart (2016) also explore informational influence as a major barrier to the adoption of climate change mitigation behavior. They rely on interviews, focus groups, and a mail survey to study barriers to climate change mitigation in the seed corn industry. The interviews were collected using snowball sampling and were transcribed and analyzed using NVivo software. These interviews were then coded for major themes and subthemes using grounded theory approach. Although their case study focuses on the seed corn industry, they make the argument that their study is an “illustrative case in which to examine structural constraints on farmers’ management decisions” (228). One such constraint is informational networks, and when they are limited, farmers may not have access to the information they need to make good management decisions. Determining who farmers turn to as trusted sources of information, whether it is a fellow farmer or a conservation program official, may provide insight into what information they have access to. These informational constraints indicate that information sharing and trust networks may be a key factor in influencing farmer’s conservation practices.

Policy considerations are another major driver of conservation practices. Government policies and regulations directly limit or incentivize what farmers are able to practice. Schewe and Stuart (2016) focus on regulatory barriers imposed by the seed-corn industry that prevent the adoption of climate change mitigation strategies, but their findings are broadly applicable to other structural barriers of political and economic systems. The complexity of the systems of various government conservation policies has been found to act as a deterrent against participating in the programs (Reimer and Prokopy, 2013). Alternatively, policy design within government conservation programs themselves may also be an important factor driving their

popularity. Programs mentioned previously, EQIP and the Conservation Stewardship program both offer subsidies for conservation practices on working land, whereas the CRP removes land from agricultural production. Working land and land retirement programs are mutually exclusive in that a single plot of land can be enrolled in one or the other of these programs, but not both simultaneously. Insights from Burton (2004) indicate that working land programs may be more attractive to farmers, since they fit in with a more production-oriented identity, but there is room for both. A study by Feng et al. (2005) compared several policy scenarios to compare the efficiency and distributional consequences of a single land retirement program with a program that includes both working land and land retirement opportunities. They compared three scenarios using an integrated modeling framework that combines economic and biophysical models: one in which producers are offered subsidies for land retirement and subsidies of a different value for conservation tillage, one in which producers are offered subsidies of the same value for land retirement only, and one in which producers are offered subsidies for land retirement from the same total budget as the first scenario. Thus, by construction, the first two scenarios have different total program costs, but the same per acre land retirement payments, and the first and third have different per acre payments, but the same total expenditure. For each policy scenario, the researchers predicted levels of enrollment in each program, as well as total income transfer and environmental benefits. They found that, compared to the case where land retirement is the only option, the economic and environmental results of a land retirement program are very different when working land programs are also available. For example, the same unit payments for land retirement in the presence of subsidies for conservation tillage can enroll only about half of the acreage that can be enrolled in the absence of such subsidies. They also found that the presence of both a large working land and land retirement program can result in more environmental benefits and income transfers than a land retirement program alone can achieve.

Murray and Bannister (2011) also highlight the importance of effective program design in describing their agroforestry project. Enthusiasm for the project can be attributed to anthropological and technical design factors, and it was only successful when the project evolved to be more adapted to the local context. It is important to note that part of the success of this project was due to its ability to adapt. Murray and Bannister note that “externally funded projects are best viewed as evolving, problem-solving systems” (385). In this case, this program had a project management policy that encouraged farmer-induced deviations from project assumptions. For example, farmers freely adapted the hedgerows that were intended as a conservation structure by planting hedgerows that consisted of perennial food crops. These had the same ecological benefit, but were grown with the intent of selling the food in the market. In this case, an ecological strategy was converted to an income-enhancing strategy, demonstrating how program participants may use a program differently than intended, in a way that works for them in their specific local context.

Understanding what motivates people is extremely important in designing effective programs, and understanding what drives conservation practices will be very important in designing effective future conservation policies. Burstein (2003) draws attention to this through his review of several earlier studies, concluding that public opinion has a substantial impact on the creation and amendment of public policies.

The themes of economic motivators, identity, natural resource values, informational networks, and policy considerations all play important roles in determining how farmers choose

to practice conservation. Within this study we will investigate how these factors motivate conservation decisions among Rice County farmers and congressional committees, to what extent these values influence farmers' participation in the Conservation Reserve Program, and whether farmer participation aligns with congressional goals for the program.

Methodology

Approach

We used a qualitative approach to this project in order to understand individual farmers' perceptions of conservation and influences on decision-making. Based on the aforementioned literature by Roesch-McNally (2017) and Schewe & Stuart (2016), it is evident that qualitative methods can be effectively employed to investigate both drivers and perceptions of conservation practices as they relate to identity, natural resource values, policy, and informational influence, but we do not yet know which of these are most significant in motivating conservation practices and CRP enrollment in Rice County. We used an anthropological and historical lense for this project in order to better understand how the historical development of congressional decisions compares to the current motivations of farmers to participate in CRP. This approach allows us to gauge legislative intent and whether or not this accurately maps onto farmers' perceptions of CRP. Interviews allow us to engage in a dialogue with and ask clarifying questions of our subjects that neither surveys nor a quantitative approach would allow. Limiting our study to Rice County provided a local context that allowed us to obtain in-depth perspectives from local farmers. This local context provided a level of detail and personal connection that was valuable, as well as a study area that is broadly generalizable to other agricultural counties across Minnesota and the Midwest.

The second aspect of our study, further discussed below, involved comparing the local context to the macro context by looking at the Congressional Record and comparing discussions of the CRP in congressional hearings to farmer's motivations for conservation. This comparison between governmental and farmer perspectives of conservation allows us to see how the ideas behind these conservation programs translate to implementation on the ground level, giving us a more complete and nuanced view of the situation.

Interview Recruitment

Our initial interview subjects were selected using recommendations from Carleton Professor David Hougen-Eitzman and extension educator for the Rice County FSA office, Claire LaCanne. Subsequent interview subjects were later found by referencing the Environmental Working Group's statistical summaries of top CRP payments in Rice County since 1995. Our final interview subjects were determined using Schewe & Stuart's snowball sampling method (2016), which involved getting recommendations for other CRP-enrolled farmers from our existing interview subjects. Combining these subject selection techniques proved to be very effective, as we surpassed our initial goal of interviewing 10 farmers, ultimately speaking with 13 different farmers. This is by no means meant to be a representative sample of Rice County, but was a number that was feasible within our time constraints and was sufficient to generate a variety of responses and thoughts about CRP.

Historical Component

Historical methods are also essential for constructing an understanding of motivations behind current conservation practices. By situating the CRP in a historical context and examining its trajectory and changes through time using congressional documents, we are better able to understand and interpret the motivations shaping present-day policies and responses. The congressional history of the program has led to the institutionalization of the CRP as a conservation policy, as well as its current implementation. In addition, examining how the CRP is discussed in the Congressional Record allows us to compare legislative intent to the farmers' perception of the program. To accomplish this, we examined Congressional Research Service (CRS) reports on the status of CRP from 1985 onward to gain an understanding of the overarching trajectory of the program, as well as congressional hearings surrounding the 2002 and 2008 iterations of the Farm Bill.

Congressional hearings are the processes by which congressional committees collect and discuss information relevant to future legislative policies, and are helpful for understanding the relevant debates and opinions that inform legislators. As Senator Nelson puts it, the process of witnesses testifying during congressional hearings “helps bring together the ideas and helps formulate opinions and positions of your respective organizations, and while they may be different among you, it is important at least to have those differences refined and identified and articulated as you have, because that clearly can be very helpful to us” (Committee on Agriculture, Nutrition, and Forestry, 2001). The congressional hearings allowed us to understand the viewpoints and arguments expressed in the committees tasked with creating and reviewing the legislation that farmers are reacting to. We examined discussions surrounding mentions of the CRP in the hearings, identified major thematic threads and compared them to our interview responses. We used these themes as avenues of comparison between interview responses and hearings to identify any significant similarities or differences which would indicate an adherence or disconnect between farmers' perception of conservation and the goals of the CRP as conceived in Congress. We chose to focus only on hearings between 2001 and 2008 because they show the dialogue and rationale behind policy changes over the period of time which has most directly shaped current farm practices. This also restricted our research to be feasible for us within our time frame.

Theoretical Design

We put our research plans into action by utilizing a qualitative approach, interviewing farmers and analyzing their responses using grounded theory. Grounded theory is a term coined by Glaser et al. (1968), and used by both Roesch-McNally et al. (2017) and Schewe & Stuart (2016) in similar qualitative studies that use interviews to explore farmers' conservation practices. This method involves an inductive process that starts with an outcome and seeks to build a theory explaining the cause, in our case through the process of analyzing and understanding subjects' responses (Sicotte, 2016). Grounded theory methodology involves asking specific questions targeted around the different factors that we identified as potential influences on farmers' decision-making, such as economics, stewardship, and cultural drivers. We transcribed each interview and then coded, or categorized, the responses based on thematic content, using our predetermined themes as a starting point, but adding more as they arose from the interviews. We made use of “nodes,” which are used to indicate or tag significant themes, and “theoretical memos,” which are notes on each thematic category that are updated as the

categories develop. Roesch-McNally et al. (2017) make use of both of these tools in their preliminary analyses, and although the full process entails several iterations of grouping, weighing, and defining of the different response categories, we did not do this due to time constraints. In our case, we began our analysis with 10 sub-categories (family legacy, profitability, yield & technology, stewardship, informational networks, unwillingness to take risks, perceptions of the government, power & freedom, joy of farming, producer identity). These arose out of the interviews and were loosely based on our original 5 that we identified from the literature. We regrouped these to fall under the umbrella of profitability, producer-identity, and independence, or freedom. The final analysis of the interview results involved exploring the nuances of each of these categories and their relation to conservation practices, the CRP and congressional documents.

We used a similar process to analyze congressional hearings, although it was less in depth due to the larger volume of data. We analyzed the hearings by first isolating mentions of the phrases “CRP” and “Conservation Reserve.” We then organized each of the relevant mentions within our thematic categories. These categories were formed organically from our exploration of the Congressional Record, and include mentions of the environmental benefits of the CRP, the CRP’s impact on the local economy, discussions of the farmer and ways to incentivize the CRP, worries over logistical aspects of the program, such as rental rates and expiring acreage, and diversification of programs. From these categories, we were able to determine trends that map onto farmer’s experiences of the CRP, where they converge, and where they differ.

Our results surrounding what motivates farmers to practice conservation can be formalized as hypotheses and further tested in a systematic way to discover to what degree they can be generalized to other scenarios. We began with several themes that we tested to determine which were applicable to be studied in further research. Our final result is a discussion of the factors that influence farmers’ participation in conservation most strongly, which can later be tested by further research. Our preliminary theory addresses the legislative goals of the CRP and whether farmers conceive of and use it in the way that is intended, but more research is needed to clearly understand the extent of this mismatch and whether it is generalizable to other areas.

Limitations

Due to the fact that this was research to be completed in a single 10 week Carleton term, it was fundamentally limited in its investigative capabilities. Similar qualitative analyses of this type invest considerable time in investigating local categories and getting to know the social and cultural landscape of the area, which is done via several iterations of interviews or surveys. This methodology is used by Bryan Tilt (2011), who tackled the difficult problem of identifying “locally appropriate objectives and outcomes for development projects”(27) by investigating what constitutes Quality of Life in rural China. Tilt used a variety of methods to determine local perceptions of quality of life: semi-structured interviews, a standardized, quantitative survey instrument, and participant-observations in the study community on two separate occasions. Responses from the interviews were used to design the survey, thus using previous data as a “norming” method for further research. This framing is important because one cannot assume the categories that will be important when doing research; instead, one must use several iterations of gathering data to design a study. This multi-step norming of research categories is a crucial step in qualitative research, but was not possible within our time constraint. Because of this, several

of our questions were inappropriate to the local context and were met with confusion, although we did try to adapt some of our questions to reflect insights from interviews as we went along. For example, when we asked what policies would incentivize greater farmer participation in conservation programs, we were generally met with confusion, and “I don’t know,” although some had answers. Another unintentionally confusing question was asking farmers to compare EQIP and CRP, which we soon learned was fundamentally flawed, since the two programs have very different goals. Lastly, our question regarding what changes farmers would make if time and cost were not an issue was seen as impractical by some farmers, who suggested that if time and cost were really not an issue then they wouldn’t have any need to change anything on their land.

Another unexpected barrier to efficient dialogue with our interviewees was our own research positionality³ as Environmental Studies students from Carleton College. When we were setting up interviews with farmers on the phone, we would give them a brief summary of our research when asking them to participate. Because of this, many farmers came to the interviews armed with packets of info about sustainability or detailed maps of their inputs plan, which was unrelated to what we wanted to know. Similarly, most of the farmers we interviewed seemed defensive at the beginning of the interviews or when we asked them about their conservation practices. It seemed like they were anticipating more of an interrogation into or an evaluation of the destructive nature of their practices than an informative interview about their motivations for conservation. Several farmers even asked if they “passed” after finishing the interview, reflecting some of their apprehension surrounding the process. This defensiveness seemed to be connected to farmers’ perceptions of the public’s opinion of them. Farmers expressed frustration at the fact that the public is critical of their practices and unaware of their daily struggles while relying heavily on the products they produce. Articulating more clearly the purposes and intents of our interview, as well as our role as students and interviewers could improve the flow of interviews in the future.

Our final limitation for our interview methodology was related to the snowball method, which, although extremely successful for gathering interview subjects quickly, can lead to sampling bias in study populations. In our case, when we asked interviewees for other farmers they could recommend to us, they often immediately thought of the most conservation-minded farmers they knew, leaving us with a skew towards conservation-minded interview subjects.

Time was our biggest limitation in our congressional research. Because of our time constraints, we chose to look only at congressional hearings for the bulk of our analysis, although we did use CRS reports as well for framing and context. We chose to focus on hearings since we thought that they would best show the differing opinions and conversation surrounding the CRP. However, there are many, many more untapped congressional resources that would give useful information as well. Focusing on the years between 2001 and 2008 was another choice that resulted from the time constraints of our project. These were the years containing the

³ Positionality is the “unique identity coordinates of your particular constellation of markers,” meaning the unique identity encapsulated by who you are. This constellation includes race, gender, class, and nationality. These identity markers, including the marker of ‘researcher,’ all contribute to a layered positionality that shape experiences, relationships and knowledge in the field. Where these identities differ, they may act as a barrier to research and cause tensions between “insiders” and “outsiders” (Bourke et al., 2009).

discussion surrounding the most recent farm bill, but it also would have been useful to look at more recent discussions as well. In addition, due to the huge bulk of text within the hearings themselves, we were unable to read each one through. Instead, we resorted to searching for mentions of the CRP, which yielded many useful results, but often obscured the larger context of what was being discussed in each hearing. Time constraints also meant that we were unable to follow the process of “norming” our categories for the congressional data. We couldn’t read through the body of data and then make categories and code. Instead, we formed categories and coded significant quotes as we went along and it became more clear what themes were important.

Results

Interview Responses

Farmers’ responses to our interview questions varied widely from one person to another, which is consistent with the commonly repeated claim that each farm is different, with their own distinct management practices and needs. Despite differences in individual management choices, several themes flowed consistently throughout all of our interviews. Stewardship of the land was an important category that many farmers emphasized as influencing their decision to adopt conservation practices. Within this category, a heavy emphasis was placed on the importance of soil health and the prevention of soil loss by erosion. Several farmers mentioned the increased frequency of heavy rainfalls in recent years as large contributors to the threatening problem of erosion. Farmers also emphasized an inclination toward semi-independence from government authority, the desire to pass on the farm to the next generation, and the necessity of productive lands, among other things. In this section, we will display our major findings, as well as the components of each of our thematic categories.

Uses of the Conservation Reserve Program

One significant finding from our interviews was the wide variety of uses and meanings that CRP land can have for different people (see figure 2). We had limited expectations at the outset of the study for uses of CRP other than simply improving water quality, and reducing soil loss by erosion, which were the primary stated purposes of the CRP, according to the original Farm Bill from 1985. However, we learned that Rice County farmers use the CRP for purposes as wide-ranging as wetland restoration and tree-planting, to simply getting some extra income for land that they would never farm anyway.

Some farmers enrolled in CRP purely out of concern for wildlife: “I’d make more money with [my land] now if I would farm it than left it in [the CRP], but at what point do you say the almighty dollar is more precious than habitat and water quality and stuff- the animals.” Other farmers were motivated primarily because of the profits one could get from CRP, as well as the conservation benefits: “when I first did it some of it was economics because we were really losing a lot of money, and it was a combination of economics and wanting to be more conservation minded.”

Some farmers reported using CRP on their buffers, many of which were mandated by the Minnesota Buffer Law in 2015, because they were required to take the land out of production and now had the opportunity to earn income on it. Another common use for CRP that we found was related to the cost-share aspect, in which the FSA will pay up to half of the costs associated with establishing tree-plantings, grasses, or waterways on CRP lands. These uses, especially

waterways, are desirable in that they can increase the productivity of farmland, so using CRP for cost-share is economically beneficial.

The most widely-accepted use among our interviewees was related to CRP's primary stated goal: erosion control. Most of the farmers reported putting highly erodible land in CRP to prevent erosion and soil loss, with one farmer even stating that the primary importance of conservation is "saving the soil; controlling soil erosion and keeping it intact."

Farmers also mentioned putting land that was not very productive into CRP ("It was hard to grow a crop there anyway"). There were many farmers who described CRP land as "land that shouldn't be farmed," while expressing disappointment that productive land had been enrolled in the program when CRP rental prices were high: "...I think there's some very productive land that shouldn't be in CRP. And there's probably some land that's being farmed that should never have come out of CRP or should go back into it..."

Some farmers use CRP on lands that they would farm if it wasn't enrolled, but a surprisingly large number of our interviewees would not farm the land if it was taken out of CRP. This could be because it was too much trouble to farm ("we were sick of farming in circles"), because of existing habitat or conservation structures on CRP land, or simply because farming the land would lead to an unacceptable level of erosion. These farmers would leave their CRP lands idle (as forests, wetlands, waterways, etc.) even if they were no longer enrolled in the program or receiving subsidies: "Yeah, I just let it [expire], because I couldn't get it enrolled again. I wanted to leave something for the birds, the deer, and the bees."

Other people who enroll in CRP are absentee landowners, who don't farm the land themselves. As one landowner put it, you put your land in CRP and then "all you gotta do is wait and collect your check." Because we focused on farmers for this study, we did not explore this perspective beyond our single landowner interviewee, but it does appear that a significant number of CRP acres are enrolled by absentee landlords who aren't interested in managing the land themselves.

Summary of Categories

The categories that we created to encompass interview responses were formed through our observations of the intertwining, yet sometimes conflicting values of the farmers, ranging from strong profit-driven motivations to intense appreciation for wildlife and natural surroundings. We felt that the categories of profitability, farmer identity, and power & freedom, as well as the areas in which they intersect, accurately captured the different streams of thought that we observed during our interviews. From our interview responses, we found that farmers often do not separate the consideration of profit from that of other factors, such as family legacy or conservation. Often, making a profit ties back into aspects of identity, such as making a living and passing the farm on to the next generation, while conceptions of stewardship also had some roots in ideas about profitability. Despite these overlaps, we will attempt to comprehensively explain each category on its own, while examining more closely the places where these ideas converge and are disconnected.

Profitability

Profitability is an obvious and expected motivator of farm management for many farmers, although the different ways that farmers related profitability to conservation and the CRP were somewhat surprising. Of our original sub-categories, we found that responses

concerning yield and productivity, unwillingness to take risks, technological developments, as well as some aspects of stewardship and legacy could all be traced back and grouped under the broad category of profitability. Profitability inevitably has a large impact on farm operations, since farmers must make a living to sustain their operations. High yields are an important part of this, and farmers often expressed hesitance to take part in conservation practices due to uncertainty in how that practice will affect their yields. The concept of risk as it relates to trying new practices was an important trend that arose many times throughout our interviews. Farmers expressed this concern in terms of losing money on potentially lower yields, preferring to stick with the practices they know will deliver high yields. One farmer, when asked about changes mandated by the Minnesota Buffer Law said, "...along the ditch is probably the best, black, most fertile dirt we own, so it was hard to put it in a strip, because it's very productive," indicating a reluctance to give up ground that could be contributing to a higher yield. Farmers also expressed a general approval and appreciation for the developments in technology over the past several decades, and the ways that those developments have reflected in their improved ability to conserve soil and nutrients as well as turn a greater yield.

Rice County farmers, while emphasizing the necessity of income to sustain their farms and livelihoods, also recognized the connection between healthy land and profits, as well as the intricacies of balancing yield with conservation practices. One farmer stated "...profit is number one, but just because there's profit, going after profit and destroying the land would never make sense either." Another farmer connected profitability to legacy, saying, "to be sustainable [a farm] also needs to be profitable. It needs to be something that people would want to do for the long term, and to bring the next generation back it has to be something that the next generation would want to do." Profitability was linked to CRP use with varied levels of importance, as mentioned earlier, with some farmers enrolling purely for the extra income, and some focused on the conservation benefits regardless of the financial subsidies. Therefore, profits are a necessary consideration in determining farm management, but are often intertwined with other considerations.

One important thing to note about the Conservation Reserve Program is that some farmers characterized the subsidies from the CRP as outweighing the potential profits from growing a crop, while some felt that it was more profitable to farm the land. This is because the CRP subsidy rates vary from farm to farm based on soil types, and also vary following commodity price changes. The productivity of different land parcels also varies. Therefore, there are times when it is more profitable to farm CRP, and farmers are more inclined to put land in, and there are also times when lower rates mean that it might be more beneficial to take land out. Only a few of the farmers we interviewed had taken land out of CRP due to fluctuating rental rates, but most of them mentioned observing the broader phenomenon happening in the local farming community.

Farmer Identity

The farmer, or producer identity category was formed to cover our sub-categories of family legacy, stewardship, perceptions of local and federal government, informational networks, joy of farming, drive for high yields, and freedom. All of these components interact to make up farmers' identities, which are simultaneously informing and being influenced by their farm management decisions. Statements related to identity came up in almost every section of the

interviews, with particularly insightful thoughts surrounding answers to the question, “what makes a good farmer?”

Family legacy was an important theme that provided a lot of context for farmers’ management decisions. One of the first things that a farmer would say in each interview was how they got their start as a farmer, which was always and without exception, related to family background. Farmers stated with pride that they were multi-generational farmers, emphasizing this family legacy when describing their farm. All of the farmers we interviewed had been farming all of their lives, indicating that farming was more a way of life, and less of a job. As one farmer put it, “It’s been in my blood a long time, you might say.” Another farmer put it this way: “Everything I do is related to farming, and if it’s not related to farming, I probably won’t do it.” This lifetime of farming creates deep ties to the land and soil, producing a desire to conserve land and resources, but it can also present barriers to positive change. One farmer, when talking about erosion control using minimum tillage said, “it’s a hard transition when you’re brought up moldboard plowing⁴ all your life.”

Family legacy is central to the farmer identity, and also inextricably connected to the idea of stewardship, which was a central theme in our analysis. Most often, when asked about what it means to be a good farmer, our interviewees replied, “being a good steward of the land.” When asked whether this idea had changed over time, one farmer replied, “No, that’s been from our grandparents. They did the best they could do.” One 6th generation farmer said he was “always raised to be mindful of what our good and gracious God has given us to protect.” Farmers’ ideas about stewardship come from having watched parents and grandparents farm. Similarly, when farmers talk about stewardship, they give attention to the importance of maintaining resources for the next generation: “Long-term on-farm sustainability— In my opinion— is about taking care of the soil. Making sure it’s here for the next generation.” The notion of stewardship is also connected to the idea of maintaining profitability, since soil is seen as an important resource for a farmer’s livelihood. One farmer said, “we want [farming] to be sustainable because it’s what sustains our livelihood and it’s what we care about: our land, our animals. So I’m just going to be constantly looking for practices that keep things better than we left it.” When asked to rank several conservation issues in order of importance, farmers tended to rank soil quality, water quality, and erosion control highly while biodiversity, wildlife habitat, and air quality were typically lower-ranked, because, as several farmers stated, the latter issues don’t factor into farming practices as directly (Fig. 3).

The farmer identity also contains a component of relating to the neighbors. Over the course of our interviews it became clear that the relationships between neighbors and the sharing of information and resources between them is an important part of a farmer’s life, providing a pool of local knowledge and a support network. Neighbors are also an important source of information for farming practices. One farmer described a group he is part of where, “we get together like every couple of months and just bounce ideas off each other.” Often when a practice seems risky as explained in the previous section, farmers will watch their neighbors to see what works and what might be worth trying: “You kind of watch what [the neighbors] are doing and see what’s working, and then most everybody shares. I’ve always appreciated that.” These neighborly relationships also provide an incentive to use environmentally beneficial management practices, since what happens in one field may affect another adjacent field. One

⁴ A conventional tillage practice where the dirt is completely turned over, commonly regarded as having caused alarming rates of soil erosion

farmer explained, “You want to be good neighbors, good stewards to your neighbors and stuff.” This idea of reciprocity, or fairness is an underlying thread in farmer relationships. Farmers often spoke well of neighbors who are perceived as having good practices, mentioning them by name. On the other hand, not every farmer is as highly regarded. Multiple times, farmers brought up nameless “other guys” who are not so well-regarded in their treatment of the land. As one farmer put it, “There are people who are land-rapers out there. Not everybody I think does as good a job, but I think everybody’s learning, but there are people who’ll come in and they’ll pay a high rent, and just do what they’re going to do and just mind the farm. I’m not that kind of person.” In their relationships to their neighbors, farmers are better able to contextualize their own self-identity and what they see as doing “a good job” or “a bad job.”

One interesting theme that arose in many interviews was farmers’ perceptions of the government. In addition to information from neighbors, farmers also get the bulk of their information about conservation practices and the CRP from their local offices (Rice County Soil and Water, Farm Service Agency). Without exception, farmers spoke highly of local FSA officials that help them implement practices and assist them in applying for conservation programs. One farmer explained, “Our Soil Conservation offices do a great job of taking care of us.” From the way they talked about it, these government officials play a large role in the local network of support that includes neighbors as well. One farmer listed many people in his local support system, concluding, “You know, there’s— there’s good people around.” This overwhelming positivity directed at farm service officials as a part of this local support network stood in sharp contrast with perceptions of the federal government and legislators. What came through in the interviews (and what will be explored in greater depth in the following section) was that farmers ultimately felt misunderstood and mismanaged by the federal government. People expressed that they wished the government would “back off,” and that they were always slightly behind the times in terms of what needed to happen. One farmer expressed that “there’s some people that just don’t like working with the government, period. They’re just anti-government.” This opposition to the government is an interesting trend, especially when compared to the strong positive perceptions of local government officials.

A huge part of what it means to be a farmer is producing a successful crop. This is the essence of what farmers are trying to do, and so having high yields is extremely important as a part of this identity. Part of the resistance to the CRP (as described above) is the common perception that productive land should not be put in the CRP. In fact, CRP land is thought to ideally be land that is inherently unproductive: “I like the idea of being able to put parcels of unproductive land in and not the whole thing, you know, just take certain parts.” Farmers that are focused on farming and producing yields have a “producer identity,” and are less likely to value a program that sets aside land that could otherwise be farmed. One farmer explained this phenomenon: “If [the farmer is] retirement age they’d rather see [the land] in CRP rather than seeing somebody farming it out there. [Depending on] where you’re at in your life it might be different. ...If you’re my age and you’re in the middle of production, you want to be farming that productive land.” This urge to make use of productive land was also connected to the idea of family legacy. One farmer said, “It’s tough to bring highly productive ground and put it into a CRP program. Especially when you’ve got the next generation coming in, and acres are hard to come by.” Therefore, CRP acreage may be seen as contributing to land scarcity, which might conflict with the commonly-held desire to pass on resources to the next generation.

Many people did acknowledge the desire to produce high yields when asked what makes a good farmer, but more interestingly, some farmers felt that their view of “good farming” had grown and evolved over time, taking high yields as a starting point, but adding on to that an increased consciousness about one’s relationship to the land and stewardship of resources. For one farmer, “Being a good steward of the land” and “trying to leave it better than we got it” are the most important parts of being a good farmer, but he also admits, “...at one time it was having the biggest yields in the county, you know? But you’ve still got to be profitable out here, no matter what you do.” Yields are therefore an important piece of the farmer identity, but are sometimes secondary to other considerations.

Another important part of the farmer identity is the sheer joy of farming. As we found in our interviews, pure enjoyment of farming is a powerful motivating force. Often, this seems to lend itself more towards the joy of active management, although there were a few farmers who were motivated to enroll land in CRP by the joy of having abundant wildlife on their land. One farmer inclined towards active management said, “I want to farm. I just have a passion for row-crop farming, so I want to- I’d like to farm as many [acres] as I can, just because I like doing that. Other people like preserving larger tracts of land for wildlife, or for whatever reason they don’t want it row-crop farmed.” Another farmer cared more about wildlife: “Money doesn’t make you happy. Health and seeing land that’s for habitat and air quality and the bees and everything else kind of means more to me.” These are conflicting opinions, but both viewpoints demonstrate the importance of personal values and personal happiness in determining management decisions.

Power & Freedom

Although Rice County farmers were generally content with the effectiveness and functioning of the Conservation Reserve Program, their critiques can largely be grouped within the category of power and freedom. Farmers felt that the main way in which the CRP negatively impacted them was by restricting their freedom to manage their land when and how they wanted. One farmer discussed difficulties with managing thistles on his CRP property, saying “The only thing that I’d say is that they push it back too far for cutting thistles...If I could get in there and clip thistles when they’re a little shorter [I could avoid thistle problems]”. Farmers feel a sense of pride for their farms, and enjoy the independence that they exercise in the management of their lands. When government regulations or programs interfere with that sense of freedom, farmers express their discontent, as in the case of one of our interviewees, who stated “...we’ve already got a wide waterway... I didn’t need someone telling us– mandating that we need it wider... I don’t care for [the government’s] mandating...” Other farmers emphasized the importance of local knowledge in managing their own land: “We don’t worry about the mandate because we know what’s better for our soils.” Farmers believe that they have the best knowledge to adequately safeguard their resources: “Ninety nine percent of the producers out there know what they have to do. Because we want this land, this dirt, the topsoil to be there for the next generation.” This local knowledge is important, since every farm is different. Farmers talked about how the slope of the land factors into whether or not a buffer is needed and that yes, buffers are important, but they know better than the government where they should be. One farmer said, “I’m not convinced that [a buffer] is the right thing, but it’s mandated.”

Farmers valuing their power to manage their land in the ways they please often goes hand in hand with a general sense of discontent with the government. When asked why he was not

involved in EQIP, one farmer answered, “I don’t know, I think maybe I’m just a little sick of working with the government...I don’t want any more regulations in my life...If you ask for a dollar, there’s a string hooked to that dollar. So maybe I want to keep the strings off.” This general sense of discontent also seems to circulate in the local informational networks: “You always hear the neighbor that’s complaining about the government. ‘They’re trying to tell me what to do blah blah blah.’” Another farmer said, “I really don’t need any government program.” Several farmers even referenced preemptively regulating themselves, with one farmer stating, “I’m worried about regulation. That’s kind of why I’m doing what I’m doing, because I’m afraid we’re going to be regulated if we don’t start doing it on our own. So I’m trying to get out in front of that,” illustrating the view that farmers would rather exercise their freedom by restricting their practices themselves than let the government tell them they have to do it. The fact that many farmers generally feel negatively about government programs and mandates contradicts the positive feelings that were also commonly expressed about individual government programs. Farmers largely responded to questions about the CRP and EQIP with remarks that they were effective and helpful programs, indicating that the disconnect between the ways that farmers view the federal government and the ways that they view federal conservation programs.

Congressional Documents

The hearing debates reflected the precarious balance within the USDA of the need to attract more farmers to enroll in the CRP and making sure that the numbers still remained within the designated acreage cap for each Farm Bill. Hearings also brought up concerns related to large numbers of acreage expiring from the program and how to handle this, indicating that it is difficult to keep enrollment in the program stable. Despite ongoing support each year for continuation and reauthorization of the CRP, CRS reports showed a steadily growing interest in several smaller programs with more specific goals, such as EQIP, CSP, and CRP sub-programs such as Sodbuster and Swampbuster, designed to set aside land specifically in threatened grasslands or wetlands. EQIP in particular saw a huge spike in interest during the congressional hearings preceding the publication of the 2002 Farm Bill, which far surpassed its allocated funding. CSP surpassed CRP as the largest USDA conservation program by acreage in the 2014 Farm Bill, which also transformed it from the Conservation Security Program to the Conservation Stewardship Program and shifted its focus towards active, conservation-minded management.

Our exploration of congressional documents revealed considerable thematic overlap between the ways in which farmers and witnesses in congressional hearings discussed the Conservation Reserve Program. In hearings from the years between 2001 and 2008, different committees from across the country shared their opinions on the past effectiveness and future steps for the CRP, while simultaneously providing essential insights into changes in the USDA’s other conservation programs. While the main goal of the committees and speakers in these hearings was focused on shifting or maintaining the distribution of funding for Farm Bill conservation programs, the points and evidence they provide to support their requests are reflective of the values that Congress weighs when making decisions for future Farm Bills. We found that many of these values fell under similar categories to the ones we created to organize the responses of farmers to our interview questions. In the sections that follow we will relay the opinions and statements of the various committees that spoke during congressional hearings between 2001 and 2008, grouping them according to their thematic category, as we did our

interview responses, so that we may compare the influences on conservation decisions of the two groups.

Environmental Benefits

Within the congressional hearings there was a significant emphasis on the environmental benefits of the CRP. Within the umbrella of environmental protection, there were three specific criteria: wildlife, soil erosion, and water quality. These aspects of conservation are meant to be equally considered in discussion of environmental benefits of the program. According to FSA Administrator James Little, “if we were to look primarily at water quality, there might be a shift [in the CRP policy]. If we looked at soil erosion, there might be a shift. If we just looked at wildlife, there might be a shift. So we are taking all of those into consideration” (Subcommittee of Forestry, Conservation and Rural Revitalization of the Committee on Agriculture, Nutrition, and Forestry, 2005). The environmental focus of the CRP is a theme that is echoed repeatedly throughout hearings from 2001-2008. Many of the voices advocating for increasing CRP funding and acreage caps are from various wildlife and environmental interest groups, and environmental benefits are often used as justifications for the success of the program. The input from interest groups is seen as a positive thing by Arkansas Senator Blanche Lincoln. In reference to interest groups, she says: “that is so critical, to involve everybody, because I think in order to do it correctly, having as much input as we possibly can is going to be vital in making this process a success” (Subcommittee of Forestry, Conservation and Rural Revitalization of the Committee on Agriculture, Nutrition, and Forestry, 2005). Representatives often express the opinion that input from interest groups and farmers are important, but the wildlife and environmental advisory groups seem to have a much stronger voice in congressional hearings than farmers, whose perspective is not often heard.

Testimony from congressional hearings also frequently mention the importance of increasing research to quantify the environmental benefits of the programs, such as reduction of soil erosion, improvement of soil & water quality, and calculation of the area of wildlife habitat conserved. This is a frequently mentioned goal that committees wish to work towards: “Looking to the future, we are working aggressively to quantify, using sound scientific methodologies, the benefits of conservation measures implemented through the CRP” (Subcommittee on Forestry, Conservation, and Rural Revitalization of the Committee on Agriculture, Nutrition, and Forestry, 2004). Beyond suggestions for the future, discussions of the benefits of the program were almost always discussed through research studies focused on conservation benefit.

One of the direct outcomes of the discussion of quantifying the CRP’s environmental benefits was the development and wider application of the Environmental Benefits Index (EBI). The EBI was developed both to rank farmers’ requests to enroll in CRP and to quantify benefits and improvements of the program. Katherine Smith, Director of Resources for the USDA in 2001, praised the new system, saying “the EBI scoring system is an excellent way to target that land that you do want to set aside in order to obtain specific environmental benefits. It has worked quite well” (Committee on Agriculture, Nutrition, and Forestry, 2001). EBI accomplished these tasks by incorporating a 300-point ranking system based on three interconnected map layers of soil erosion risk, water quality risk, and wildlife habitat quality, as well as additional considerations of program costs. The FSA works with farmers to collect data on their land for each of the factors, creating a composite score that can be compared to earlier scores in order to assess progress and improvements.

This focus on developing and refining the EBI was connected to the growing number of requests for environmental targeting of CRP acres from 2001 to 2008. Specific requests from witnesses included environmental targeting to ensure that “CRP is focused on the most environmentally sensitive land” (Subcommittee of Forestry, Conservation and Rural Revitalization of the Committee on Agriculture, Nutrition, and Forestry, 2005). This idea is framed as enrolling the “right acres” in CRP, and is an important goal of the program. The focus on improving the targeting of environmentally-sensitive lands illustrates the influence of environmental benefit on policy choices at the congressional level, but also is a symptom of the fear of over-enrolling acres, which could harm the economy. In addition, there are issues of equity that are raised when increasing environmental targeting: “the use of priority areas has some real pluses for the environment... But it's had some minuses in the farm community for those people who don't come from priority areas and have found it much harder to access funds” (Committee on Agriculture, Nutrition, and Forestry, 2001). In addition, targeting of environmentally sensitive acres would further limit the autonomy of farmers and the flexibility of the CRP to address their needs (although the flexibility of the conservation programs is something that is frequently praised in Congress). Despite these drawbacks, there is an ongoing theme of only enrolling land that “truly deserves to be in CRP” (Subcommittee on General Farm Commodities and Risk Management of the Committee on Agriculture, 2006). The CRP has evolved to reflect this by increasing its focus on continuous sign ups for filter strips, riparian buffers, and grass waterways and decreasing whole-farm enrollments.

The CRP allows “farmers to take their land out of production, which would in turn save that water that could go downstream to help the end down the stream and ground and surface water, which would take pressure off of the local water supply and then, in the end run, it would end up helping the wildlife at the end of the line” (Subcommittee of Forestry, Conservation and Rural Revitalization of the Committee on Agriculture, Nutrition, and Forestry, 2005). This insight, as well as those in the previous paragraph, illustrate the overlapping nature of our thematic groups for the congressional hearings. The focus on environmental targeting and use of the EBI are inextricably linked to effects on local economies and individual farmers.

Economic Considerations

Beyond benefits to natural resources, the congressional hearings demonstrated that another important goal of the CRP, to legislators, is to help local economies. However, whether the CRP has a positive or negative effect on the economy was debated over and over again during congressional hearings. Idaho Senator Ken Salazar stated in 2005 that “the CRP program is one of those programs where we as a National Government invest significant resources into a program that is intended to help agriculture in rural communities. I understand the environmental and conservation benefits that come from this program as well, but at the end of the day, for me, what is going to be a major driver is whether or not the CRP program is in fact helping the communities of the Eastern Plains or the rural communities of Idaho” (Subcommittee of Forestry, Conservation and Rural Revitalization of the Committee on Agriculture, Nutrition, and Forestry, 2005). However, it was unclear whether or not the CRP does in fact help local economies. Taking land out of production was frequently seen as a harmful practice that stagnates the local economy by preventing the purchase of inputs: “Many of the land owners getting a government check live elsewhere so our struggling economy receives no benefit. No

one is running cattle on this land-buying fuel, feed, seed, fertilizer, farm equipment or paying labor. I suggest you take a deeper look at the impact this program is having on rural farm economies” (Subcommittee on Conservation, Credit, Rural Development, and Research of the Committee on Agriculture, 2006). However, witnesses have also argued that CRP has a positive impact on the local economy: “past economic studies have concluded that the CRP at current levels has resulted in net economic benefits to domestic and foreign producers and consumers, but only when estimates of the environmental benefits are included” (Subcommittee on Agriculture, Rural Development, and Related Agencies Appropriations, Committee on Appropriations of the Committee on Appropriations, 2001). This debate was ongoing and unresolved, although concerns about the economy were often used to justify lowering CRP caps.

Several witnesses expressed frustrations that absentee landlords occasionally use the CRP as a revenue stream, since CRP subsidies are then no longer going into the local economy. Joe Hampton, of the Oklahoma Grain and Feed Association stated that “What America needs is more young farmers and not programs that serve as retirement benefits for absentee landlords” (Committee on Agriculture, 2001). Senator Salazar voiced similar opinions, saying “...[absentee landowners] basically are using the CRP program simply as a gravy train, a revenue stream to fund their high-flying lives in New Orleans or New York or other places and they really aren't contributing back to the economy or to the community” (Subcommittee of Forestry, Conservation and Rural Revitalization, of the Committee on Agriculture, Nutrition, and Forestry, 2005).

Further economic frustrations with CRP had impacts on aspects of the farmer identity, notably family legacy. When CRP subsidies are too high, they drive up the land rental rates for the area. This can make it difficult for young farmers to get into farming and continue the family legacy. One farmer acting as a witness said that CRP was “taking [land] away from myself and the young son I am trying to bring into farming... When young people start farming, they get the marginal land. The marginal land is now in CRP. What I rented for \$35 an acre two years ago is \$90 an acre CRP now. No fool would rent it to you for that” (Committee on Agriculture, Nutrition, and Forestry, 2001). Idling land is perceived as creating barriers to young farmers, and are also perceived as more attractive to farmers of retirement age who no longer feel the desire to farm the land. This concern was raised by the few farmers that acted as witnesses in the congressional hearings, and although their opinions were heard, accessibility of land to young farmers was not a concern that was brought up independently by legislators. However, this point does begin to bridge the gap between discussion of local economies and farmer interests.

Farmer Interests

Beyond the discussion of the macro effects of CRP, such as environmental and economic benefits, the congressional discussions do display some awareness of farmer interests on an individual level. Strong emphasis is placed on the importance of quantifying the environmental benefits of the CRP and ensuring that it remains financially sustainable, but there were also many mentions of the value of getting the input of farmers. Senator Harkin says, “Farmers must be fully involved if conservation on private agricultural lands is to succeed. They have the insight and experience to know what will work, and what will not” (Committee on Agriculture, Nutrition, and Forestry, 2001). This is a key insight from our interviews, and it is significant that the Congressional Record supports this view. However, it does not seem that the program is currently set up in order to maximize farmer involvement. Members of Congress often discuss

the need for more local specificities, and it seems to be an ongoing problem in implementation of the program. For example, one issue was related to cover crop seed mixes that were standardized, yet inappropriate to certain areas. Senator Crapo concedes that “there are regional differences...perhaps the local control could help us be much more effective at meeting these regional needs” (Subcommittee of Forestry, Conservation and Rural Revitalization of the Committee on Agriculture, Nutrition, and Forestry, 2005). Using local knowledge is an idea that is occasionally tossed around the committees, but generally it is to admit the poor design of the program in relation to local contexts.

Farmers were mostly discussed as a homogenous group, but were occasionally acknowledged to have different needs and wishes. This manifested itself most notably in discussions of alternative conservation programs that may be implemented on working lands, such as EQIP. One major trend between 2001 and 2008 was a growing enthusiasm and push for working land programs in addition to CRP. A diversity of programs allow the farmer more flexibility in which to choose: “I would give States much more flexibility in tying these programs together at the local level, because a farmer may have both some wetlands, he may have some land that qualifies for CRP, he may have some land that would qualify for EQIP. There ought to be a way to package that that would make sense to the farmer” (Committee on Agriculture, 2001).

New programs such as CSP and EQIP have widespread support and are being looked into and expanded: “there is a great interest in making sure that we address many of the environmental programs, that we look at new ways, new kinds of programs in the environmental areas” (Subcommittee on Agriculture, Rural Development, and Related Agencies Appropriations, Committee on Appropriations, 2001). However, others addressed the variety of existing conservation programs as a negative, since some of the programs “do overlap... there is a need to try to consolidate some of them, and in particular, especially when we do have producers that are going forward on multiple programs... let us say EQIP and then also going in for CRP or such and they have to develop multiple plans” (Subcommittee on Conservation, Credit, Energy, and Research of the Committee on Agriculture, 2007). The range of options may therefore be seen as increasing complexity, not flexibility. Despite this point, working land programs are generally favorably thought of, since there is “no one program, including CRP, as big and great as it may be, that suits the need of every landowner” (Subcommittee of Forestry, Conservation and Rural Revitalization of the Committee on Agriculture, Nutrition, and Forestry, 2005). Working land programs are underfunded, and the demand for EQIP in 2001 vastly exceeded the available funding. Since the USDA allocates its conservation funding based on the size of its programs, one issue that was mentioned repeatedly by different witnesses in congressional hearings, was the issue of funding being pulled from the smaller programs to account for increases in funding for CRP, its largest program up until 2014. The increase of funding for CRP corresponded to acreage cap raises and the increased burden of technical assistance costs, prompting protests from many hearing witnesses, who negotiated for each program to be responsible for their own technical assistance costs. Witnesses advocated for more funding for smaller programs, such as EQIP.

Finally, the way that farmers themselves were discussed in congressional hearings was significant. When designing conservation programs, an important factor to keep in mind is how to incentivize participation. Notably, farmers were conceived as rational economic beings, and all incentives for their participation were presented as monetary ones. Beyond financial

motivators, farmers' needs were noticeably absent from congressional discussion. Despite the fact that farmers have been demonstrated to use CRP in other ways than just as an income stream, legislators worried whether farmers will continue with the program without adequate regulation: "Are they under any obligation to maintain the facilities they built or the practices they've installed with the money they've received? I don't believe they are... To the degree there's no future requirement of any kind, maybe some of those investments aren't going to be particularly long-lived as landowners change their priorities about what they're doing" (Committee on Agriculture, Nutrition, and Forestry, 2001). This quote exemplifies the view that farmers need an obligation to not farm sensitive land. Senator Durbin expressed a similar view: "These conservation programs I think are especially important when the economy is in a very difficult time for our farmers. Do we not run the risk, without these programs, of creating incentives, the wrong incentives for farmers to plant fragile land?" Again, without conservation programs to incentivize them, farmers are expected to want to put sensitive land into production. In almost all cases during our interviews, we found that farmers did not believe sensitive land should be farmed, and would not farm it even if it was no longer enrolled in CRP, so this seems like an inaccurate representation of farmer motivations.

Concerns Moving Forward

Exploration of the Congressional Record revealed a self-awareness of many of the drawbacks of CRP policies. Related to congressional committees' recognition of the interests of individual farmers was the discussion surrounding the issue of rental rates. Rental rates vary from region to region based on soil type, quality, and susceptibility to erosion. While this is helpful when it comes to targeting the most environmentally-sensitive land for enrollment in the CRP, "we find in some portions of the country some rental rates are higher than the local market, some are lower," resulting in a suboptimal enrollment of land (Committee on Agriculture, Nutrition, and Forestry, 2001). As Minnesota Senator Dan Skogen stated, "the CRP rents are at levels that are inciting prime cropland to be put into CRP and it has become one of the leading competitors for young folks who want to come into the farming business or to continue to farm" (Committee on Agriculture, Nutrition, and Forestry, 2001). Sherman Reese of the National Association of Wheat Growers shared similar opinions, saying "we can't simply lock up and walk away, nor can we expect production agriculture in this country to stay viable if we have to compete with the Federal Government and the Federal Treasury for the chance to farm ground. And so from that standpoint, to coin a phrase, we support the farmer's right to choose" (Committee on Agriculture, Nutrition, and Forestry, 2001). This concern regarding the tendency of farmers to enroll perfectly productive land in the CRP when rental rates are higher than local land prices caused several committees to speak in favor of changes to the process of determining rental rates. Sherman Reese spoke further, saying, "We would also encourage the application of revised rental rates to all full-term re-enrollments to ensure that payment rates are up to date and reflect actual local land rental market conditions," while Senator Max Baucus of Montana suggested "Maybe the payment structure needs to be changed so the most productive land put in CRP gets a disincentive or something pretty low and the least productive land gets higher payment as encouragement to put the less productive land in the CRP" (Committee on Agriculture, Nutrition, and Forestry, 2001).

In terms of other concerns among congressional committees, there is some debate as to what the balance between local and national priorities should look like within the CRP. While

the CRP seeks to retire cropland and provide environmental benefits to individuals on private lands, the program also needs to remain adequately funded to be able to front the cost of rents for farmers in the next enrollment, so there is a lot of pressure for the CRP to remain cost-effective. Al Christopherson, President of Minnesota's Farm Bureau, spoke on funding issues, stating, "We are troubled by the ongoing shortfall of technical assistance funding for CRP. These shortfalls will result in a cut for EQIP and other programs in order to deliver CRP" (Subcommittee on Forestry, Conservation, and Rural Revitalisation of the Committee on Agriculture, Nutrition, and Forestry, 2004). These concerns for the potential downfalls of CRP policies as well as the many ways that committee opinions were voiced throughout congressional hearings illustrate the values influencing conservation decisions at the congressional level.

Discussion

While our results showed a wide range of applications for CRP, as well as an overlap of the ways in which both farmers and congressional committees thought about conservation, there remains a disconnect between the two groups. Somehow, despite recognition and emphasis of the same issues, there is a barrier to implementation of regulations that effectively address these concerns. In the following section we will dig deeper into the nature of this disconnect, exploring potential explanations, as well as ways that farmers are circumnavigating the drawbacks of federal agricultural conservation programs. We will conclude by discussing the implications of this study for the future of agricultural policy, and potential adaptations for future studies conducting similar research.

Active versus Passive Management and Conservation Practices

One distinction that emerged clearly from our interactions with farmers was the rift between active and passive management techniques and programs. The Conservation Reserve Program subsidizes the passive management of land by removing acres from production and allowing natural processes to restore various properties of the soil and water, while programs such as EQIP and CSP provide financial and technical assistance with active management techniques, such as erosion control through the practice of strip-tilling crops rather than using the traditional moldboard plowing method. The primary difference between these two management techniques is the ability to continue growing and selling crops throughout active management, whereas passive management would replace cropping entirely on the enrolled land. While the CRP seeks to provide financial subsidies that are competitive with local land prices, those are still reflective only of the cost of the land, while active management provides the benefit of still earning profits from yields, combined with cost-sharing on additional conservation projects, such as sediment basins or sustainable manure storage systems. One farmer summarized the distinction concisely, saying "...remember that basins and our conservation practices are doing what we need to do to grow our crop, you know, to do production, where the CRP is totally out of production, but you're putting that land in there for a reason". This connects with farmers' producer identities, illustrating their preference for producing a crop over letting land sit idle, but also their recognition of the necessity of setting aside vulnerable land. This connects to Burton's (2004) discussion of "good farmer identity" in which practicing conservation on working lands is likely to be much more attractive to most farmers, due to the image of a successful farmer producing a good yield. This identity does not seem to be consistent with absentee landowners, since they don't share farmers' inherent drive to grow crops, and, as mentioned earlier, the

landowner that we interviewed stated that he enrolled in CRP simply so that he could be paid for leaving his land idle without having to worry about managing it. This was also demonstrated to be a concern held by the congressional committees, who also questioned relying on passive conservation management: “If the goal of [the CRP] is to maximize environmental benefits, this unconditional commitment is misguided. Maximizing idle acres is not equal to maximizing environmental benefits. Putting a narrow strip of land along a waterway in the program may seem expensive, but likely provides benefits many times statement of enrolling more acres of flat land in dry climates” (Subcommittee of Forestry, Conservation and Rural Revitalization, of the Committee on Agriculture, Nutrition, and Forestry, 2005). As previously discussed, congressional testimony also reflected a worry about absentee landowners leaving whole farms idle and collecting the paycheck. Both the congressional data and the interview responses support the claim that passive management practices are not always the most environmentally or socially beneficial, and that active management practices are just as valuable in conservation, if not more so. Feng et al. (2005) address this comparison in their research, and their findings indicate that there is room for both types of program, since total government expenditures increase under a policy that uses both. In addition, the use of both active and passive management practices increases environmental benefits, which further indicates the different focus and uses of these programs.

The valuation of natural resources is another important, multifaceted theme running through our research. Murray and Bannister (2004) expose the ways in which economic reasoning can be applied to reach conservation goals. Our exploration of farmer motivations for conservation practices revealed something very similar. Farmers are motivated to conserve resources primarily to preserve their livelihood and the livelihood of future generations. This important aspect of the farmer identity meant that farmers were very motivated to protect natural resources as predicted by Reimer and Prokopy (2013). However, in the Congressional Record, farmers are discussed as needing generous incentives or harsh mandates to practice conservation, which seemingly misses the point that it is in farmers’ best interests to conserve their resources. They are aware of this and will do it in whatever way they best see fit. Often, this translates to placing more value in active land management programs, but CRP also has a place in this system. In addition, we found stewardship to have an important role in the “good farmer identity” as discussed by Burton (2004) and McGuire (2012). Burton mostly focused his discussion of “good farmer identity” on producing a good crop, but we found that stewardship was an important component of almost every farmer’s conception of what it means to be a good farmer. This means that in addition to utilitarian reasons for practicing conservation, farmers will be drawn to conserve resources because they fundamentally feel it is what is *right*. Protecting natural resources is what good farmers do. In practice, this means that farmers will be fundamentally drawn to conserve natural resources even for a lower price than they could get from working the land. Discussions within the congressional hearings did not consider this possibility, but this was supported by many of our interview responses.

One of the largest issues with CRP and passive management for farmers was its infringement on their ability to manage their land freely. While many farmers complained about not being able to trim weeds, trees, and thistles in lands enrolled in CRP, one unexpectedly made similar mention of limitation about EQIP and active management programs. He reported that he “decided not to renew my contract because it was too limiting, like it wouldn’t allow me to change my rotation at all, and I was stuck in a certain rotation. And then sometimes that doesn’t

make sense, and you have to change and adapt and the program didn't allow for that, so I didn't like how it restricted me." This places emphasis on the different goals and needs of each farmer, and shows that, while many farmers might view the CRP as encroaching on their ability to produce a good crop or manage their land as they see fit, there are others who believe the same is true about EQIP. This view that the program should change and adapt is reflected in Murray and Bannister's (2011) agroforestry research, which states that effective programs must be flexible. This is consistent with our results, for farmers displayed both flexibility and ingenuity in their different uses of CRP. In addition, legislators often spoke about the importance of flexibility, but it does not seem like it has been sufficiently implemented, as yet, since many farmers we interviewed were frustrated about constraints on their ability to manage their land under CRP. This reflects the disconnect between national and local priorities; the program is following national environmental standards that may not always be applicable in the local context. Designing programs from the ground up and framing them within local contexts as described by Murray and Bannister will result in more effective programs that are able to problem-solve within a local context.

Perhaps the most beneficial and distinct aspect of active management programs, and EQIP in particular, is the diversity of its applications. While CRP can be used in many ways to benefit farmers beyond just setting aside land, all of those uses are similarly limited by the passive nature of the program and the fact that no crops can be grown on that land still. EQIP can be used to share the cost of establishing new conservation cropping practices, such as new tillage methods, sediment basins, terraces, dikes, manure storage, and waterways. The multitude of uses of EQIP have allowed some farmers to experiment and find, as one of our interviewees did, that "...all of those reasons for CRP that I just mentioned can be done through agriculture if it's done correctly...It makes more sense to plan your whole system to produce food because we do need to eat and that's why we do agriculture, but we don't have to do it in a way that's environmentally destructive." In response to the diverse needs of farmers, congressional hearings showed an increasing focus on promoting smaller, more specific programs designed to address issues not expressly covered by existing programs. Some of these programs addressed more complicated conservation issues, which was reflected in several farmers' statements that some programs were overly complicated. Although Reimer and Prokopy (2013) showed that complexity was a disincentive to participation, farmers possess the knowledge to know what they need, and they have described local support systems that will help them navigate this complexity. Although complexity was sometimes perceived as a deterrent to participation in conservation programs, it is not sufficient to prevent farmers from participating, and in fact, more complexity may be beneficial in providing options to farmers so that they can adapt conservation programs to their own ecological context.

Informational Networks & Perceptions of Government

Another aspect of farmers' participation in conservation programs that arose from our interview responses and carried a surprising amount of influence was the reliance on local networks for conservation information. As mentioned in our Results section, farmers used neighbors, local FSA and NRCS offices, as well as groups of farmers using similar methods to gain more information about conservation practices that they are interested in implementing on their land. These groups were formed out of a necessity to understand and adapt to the

regulations being imposed on farmers and their land by the federal government. These informational networks, originally discussed by Burton (2004) and Roesch-Mcnally (2017), proved to be crucial to farmers' experience of, success with, and willingness to try these programs. However, these networks as a resource were not acknowledged in the Congressional Record, although a bigger management role for local FSA offices could be a potential solution to the issue of local governance.

Generally the farmers that we interviewed perceived the federal government either neutrally or negatively, seeing them as a disruptive, misguided force for their farm operations. These opinions manifest themselves in criticisms of federal regulations, mainly focused on the temporal misalignment that typically plagues changes to the CRP. One farmer voiced his discontent by saying, "...the government has always been so freaking slow at responding...the government always is behind both ways and when they should be doing something it takes them a couple of years to do it and then when they shouldn't be doing something, you know, the horse left the barn and then they're going to close the door". This sentiment is reflected in the statement of a witness from a 2003 congressional hearing, who said, "Farmers need a consistent, predictable long-term policy in order to make sound investment, cropping and marketing decisions, and to compete in a world market replete with subsidies, tariffs and nontariff barriers". As mentioned earlier, farmers combat these unpredictable and untimely federal regulations by preemptively regulating themselves, installing buffers or changing their practices to meet expected changes in standards before they are actually required. This is deeply entwined with the theme of power and freedom, as farmers would rather make regulatory changes by their own free will than wait and allow the federal government to order them to do so. Some also adopted practices before they were federally mandated simply because they believed "it was the right thing to do" in terms of the health of their land.

Contrary to farmers' perceptions of the federal government, we did not have any negative responses concerning farmers' relationships with local government officials. Farmers mainly interact with employees of either the Farm Service Agency or the Natural Resources Conservation Service when they are gathering information regarding their conservation practices. Interestingly, farmers expressed none of the same impatience for the FSA that they did for the federal government, despite the FSA being a federal agency. This would indicate that the animosity that farmers feel isn't strictly related to the federal government itself, but the actions of imposition on their livelihoods by parties that they never physically interact with. They view the federal government's actions as overreaching and uninformed, since they possess none of the local knowledge required to address the issues and needs unique to not only each state or region, but each individual farm, as emphasized by nearly all of our interviewees.

Although discussions in the Congressional Record sometimes reflect this deficiency, it is significant that they ignore any evaluations of the CRP beyond economic and ecological studies. This directly relates to Blount and Pinchon's (2007) insights that natural sciences and "socio-economics" are given primacy over other forms of knowledge. Despite the fact that congressional committees talk about problems implementing this program in local contexts, they still do not discuss anthropological or qualitative studies that might be able to address this issue. This sort of data is extremely important (as discussed by Blount and Pinchon). One aspect of the local situation that was ignored in congressional discussion was the importance of fairness. From the literature and our interviews, we know that these informational networks are in place: farmers are always watching their neighbors and noticing any discrepancies. Concerns over

fairness are a major cause of dissatisfaction over rental rates that is not discussed at all in the congressional committees. Sigmund et al. (2002) also argues that fairness is an important consideration beyond economic rationality. Future ethnographic studies could harness these insights in a way that is usable to Congress.

Local knowledge is exceedingly important, for it allows farmers to solve problems facing their land. CRP is commonly discussed in the Congressional Record as a means to protecting environmentally sensitive ground, but as discussed earlier in this paper, farmers have a wide range of uses of and motivations for enrolling in CRP. While farmers are concerned about the environment, their motivations for enrolling land in the CRP are often discussed through the lens of yield and the difficulty of producing on sensitive ground. This highlights the fact that farmers use CRP in whatever way they feel is most useful (see figure 2 for reference). Other programs such as EQIP and CSP are also a part of these solutions, and all of them are used by farmers as a part of a diverse portfolio of programs that they draw upon to craft solutions for the issues facing their land. This freedom of choice is important, as is the local knowledge that is used to make these choices. Communication between farmers is essential to evaluating these programs and the practices included within them.

Policy Implications

Over the course of our research we have heard and read countless critiques and problems related to the management of CRP and other conservation programs by the federal government, as well as many potential solutions. The results of our study have shown a strong, farmer-driven interest in conservation, tied tightly to farmers' identity, sense of freedom, and drive for profits. In moving forward, how can federal agricultural conservation policies be shifted to give farmers maximum control and participation in the programs that dictate their livelihoods? As one witness at the 2001 congressional hearing to review Farm Bill conservation programs stated, "Farmers must be fully involved if conservation on private agricultural lands is to succeed" (Committee on Agriculture, Nutrition, and Forestry, 2001). Farmers also feel that way: "you've got to get farmers to buy into this. If you mandate stuff there's always a little bit of pushback." This reveals the government has an understanding of the importance of local farming knowledge and engagement with creating solutions, but the feedback from farmers when talking about the government reveals that there remains a disconnect between legislative intent and reality. Therefore, more work is needed to craft solutions and make farmers feel empowered and supported simultaneously.

A key part of the necessary changes is a transition away from the traditional top-down approach in which the government creates a regulation and passes it down to the producers at the bottom level. The ideal shift is to prioritize a bottom-up approach, in which farmers could create or suggest policies that address their specific needs which would then be implemented at the federal level. However, as pointed out in the Congressional Record, both approaches are needed to a certain extent: "Local versus Federal or top down versus bottom up... The fact is, we need both. That is the only way you can achieve accountability to taxpayers and flexibility to local citizens simultaneously... tension between local control and accountability is a necessary and desirable part of a system that relies on local, State and Federal partners... You have to make that process transparent and as participatory as possible" (Committee on Agriculture, 2001). Determining the bounds of federal and local control is an ongoing process that should incorporate more input from local communities than it currently has.

Additionally, farmers often characterized the government as out of touch with the current state of affairs, always lagging a few steps behind when assigning cap levels and CRP rental rates. This leads to a mismatch between supply and demand, and impedes the CRP from functioning as intended. Although this limitation is a direct result of bureaucratic processes, it is an important one to consider when moving forward in discussing solutions. Farmers themselves are important sources of information on that front, as many had ideas and thoughts about how to implement positive changes in the CRP. One farmer suggested solving the mismatch between CRP rental rates and land rental rates in the following way: “I would like to see the CRP contracts for a 10 year program. It would be nice if you could go five years into it and re-adjust that price, continue with the contract, but adjust that price to more go with the rental rates of the land around us.”

The farmers we interviewed were generally well-versed in sustainable practices, but many of them indicated that they were on the leading edge of conservation practices in the area. Farmers who are not currently on the cutting edge of conservation management practices seem to be holding back because of the riskiness of changing their current farming methods. A cost-share of risk could be a good way to assuage this issue, as one farmers suggested. This would involve the government retroactively subsidizing the difference if a conservation practices produces a small yield in comparison to yields produced by conventional practices.

One important takeaway of the interviews was that farmers do care about their resources. They care about them on many levels that are deeply entrenched in their way of life. Resources are valued for their own sake, but also in terms of preserving the farm and the family legacy, and in terms of producing a successful crop and making a profit. All of these things should be sufficient to motivate farmers to protect these resources, especially if there are adequate educational programs for those less-enlightened farmers to learn more about the importance of conservation and incorporate an expanded understanding of stewardship into their “good farmer identity.”

A final component to keep in mind moving forward is the fact that conservation cannot just be done with one program. Multiple programs are needed, and the plethora of choices offered between active, working land programs and more passive set-aside programs are important to maximize farmer agency and choice. Again, farmers know what is needed on their land, and as one farmer put it, “it’s an individual decision” which programs they are involved in.

Often, negative impressions of the government imposing on personal freedom lead to farmers’ hesitance to be involved in these programs. Farmers generally have negative perceptions of the distant federal government that they view as restrictive, yet it has been demonstrated that farmers feel positively about the local government officials they interact with in their daily lives. Perhaps a solution to this issue could be to create more contact and dialogue between farmers and the government so that farmers feel more supported. More involvement from local government in creating management programs could also be a way to make farmers more inclined to use conservation programs.

Further Research

One main finding of this study was that there is no single way that farmers tend to use the CRP. We identified a number of ways that CRP can be used, but this finding could be studied further in the future. It would be interesting to investigate the different ways CRP is used and the

benefits of each of them. This would be useful information to further consider the value of this program and its place in a portfolio of conservation programs.

While our study explored the narrow, yet complex realm of CRP, conservation, and Rice County farmers, future studies could benefit from a wider or shifted scope. Although we were successful in obtaining our desired number of interviews, the boundaries of Rice County may have restricted our options in terms of diversity. CRP price is determined by soil type, which varies regionally, meaning that many of the farmers in Rice County share the same soils, and by extension, similar practices. We were fortunate in this research project to interview farmers who used a great variety of practices since, as the farmers emphasized, “every farm is different,” but future studies may widen their scope to better understand the differences in CRP practices on a larger geographic scale. Focusing on different counties, comparing multiple counties, or investigating a different conservation program altogether could expand our understandings of how farmers across the state and country relate to their farms, conservation, and government regulation. Continuing this research and adding additional pieces of information to this complex web of values and interactions is essential to developing an understanding of the operation of the United States agricultural industry, and can allow for more informed consideration and suggestions for future agricultural policies that provide farmers with the level of freedom and control that they need to be productive and sustainable.

Conclusion

One of the main takeaways from this project was that farmers’ lives are far more complicated than they are often given credit for. There are a multitude of aspects to consider in the process of making decisions about conservation practices, and the motivations behind those decisions are intertwined with each other in complicated ways that are difficult to tease apart. In order to construct policies that successfully engage farmers, we must be mindful of their perspectives and opinions. The Conservation Reserve Program has many flaws, but it also holds an important place amongst other conservation programs including both active and passive management techniques. The passivity of the CRP is a drawback from the perspective of the producer identity, but it can provide a lot of flexibility, as shown through its wide range of uses. It holds value in being included alongside many different programs, from which farmers may choose those which suit the individual requirements of their land. Effective conservation involves looking at each farm as its own entity with its own distinct needs, and farmers, as the stewards of each farm, are in the best position to make decisions regarding the needs of each farm. This flexibility, along with community connectivity and local management solutions, is needed in order to facilitate more effective conservation management practices that address both the needs of the land and the needs of the farmer.

We found that the government vocalizes these issues along many of the same lines as farmers, although there is a disconnect in both understanding and implementation between the two groups. Interdisciplinary studies such as this one have an important place in bridging this divide. Ultimately, this project aimed to give farmers a voice and to place that voice within the broader context of the CRP as a program. Farmers feel that the public does not understand them and does not listen to them, but it’s imperative to effective conservation in agriculture that we begin to try.

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Appendix A- **Supporting Materials**

Below is the interview guide for the interviews we conducted as part of our research. We used a semi-structured approach to the interviews, as we wanted to be able to get the individual experiences without fragmenting them with too many detail-oriented questions. We used the following guide to start (with intentionally vague or open-ended questions) and then, based on the responses, we asked clarifying questions.

Preamble-

You are invited to participate in a research study of Rice County farmers and the Conservation Reserve Program. You were selected as a possible participant because you currently or previously managed lands that were enrolled in the CRP. We ask that you read this form (hand them consent form, which includes all the information below) and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Willa Gruver & Kadin Woolever, Environmental Studies, 2018, Carleton College, Northfield, Minnesota.

Background Information- The purpose of this study is to better understand what factors drive farmers' perceptions and practice of conservation in Rice County, particularly as they relate to changes in the CRP?

Procedures- If you agree to be in this study, we would like to familiarize you with the procedures involved: We will ask you a series of questions related to your land, management practices, personal values, and experience with the CRP. We expect that this will take between 45 and 90 minutes, and would ask you to provide as much detail with your answers as you are comfortable doing. If, at any point during the interview, you do not feel comfortable answering the question or would like to stop, please let us know and we will be happy to accommodate you.

Risks, Inconveniences, and Benefits of Being in the Study- The study is relatively risk-free, and involves only the inconvenience of lost time. The benefits to participation are the chance to provide information that could one day lead to more effective and appealing conservation policies for Rice County farmers.

Confidentiality- We will keep all facts about you private. We will keep your records private to the extent allowed by law. We will use coded values rather than your name on study records where we can. Your name and other facts that might point to you will not appear when we present this study or publish the results.

Voluntary Nature of the Study- Your decision whether or not to participate will not affect your current or future relations with Carleton College. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions- You may ask any questions you have now. If you have questions later, you may contact us at Carleton College, 207-449-6005 or 650-274-8332, wooleverk@carleton.edu or gruverw@carleton.edu. Alternatively you can contact our advisors, George Vrtis (507-222-5410) or Constanza Ocampo-Raeder (507-222-4115) If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), contact the Institutional Review Board for Research with Human Subjects at Carleton College, c/o Office of the Associate Dean of the College, Carleton College, One North College Street, Northfield MN 55057; telephone (507) 222-4301.

Interview Questions-

- 1) How long have you been farming? (0-10, 10-20, 20-30, or 40-50 years)
- 2) How did you get your start as a farmer?
- 3) How long have you owned/been managing this land? (0-10, 10-20, 20-30, or 40-50 years)
- 4) How many acres do you farm? How many do you own? How many do you rent?
- 5) Could you give us a brief description of your farm: what you grow, your primary methods of management?
- 6) What does long-term, on-farm sustainability mean to you?
- 7) What is the importance of conservation in farming?
- 8) Can you rank the following topics in order of conservation value? (soil quality, wildlife habitat, erosion control, water quality, air quality, biodiversity)
- 9) What do you view as the largest issue facing your land today? Has this changed over the time that you've been managing this land?
- 10) What conservation practices do you currently employ? (cover crops? Conservation tillage?) Why did you choose these practices and what are their benefits?
- 11) If time and cost were not an issue, what conservation techniques would you like to implement on your land?
- 12) What, if any, practices do you implement differently on land you own as opposed to land you rent?
- 13) When, and for how long, were you enrolled in the Conservation Reserve Program?
- 14) What motivated you to enroll in the CRP initially?
- 15) Can you tell me a little about the goals of the conservation reserve program as you understand them?
- 16) Would you ever put land from CRP back into production? What would cause you to do this? Do you think the government encourages or discourages this?
- 17) Do you feel that you have access to sufficient information about the program? Where do you get your information about the CRP? Where do you get information about conservation practices in general?
- 18) Have you ever adopted a new practice because a neighbor has done it? Are you generally aware of neighbors practices? How do you share information?

- 19) What were your main reasons for discontinuing your enrollment in CRP? (If applicable)
- 20) What are the main reasons that people tend to discontinue enrollment in CRP that you are aware of?
- 21) Are the financial subsidies of the CRP comparable to the typical profits from productive lands? Did this influence your decision to enroll?
- 22) What are your thoughts on the conservation value of the CRP in general? Is it an effective program? Does it accomplish its goals?
- 23) Have you incorporated any other conservation measures as alternatives to CRP? (EQIP, CSP, MAWQ)
- 24) How have these programs compared in effectiveness to the CRP? What do you see as the primary difference between CRP and any other conservation programs you have used?
- 25) Which program do you prefer? Is there anything lacking in them?
- 26) Do you feel that these government programs are easy to navigate? Are some easier or more complicated than others?
- 27) What types of programs or policies do you think might assist you participating in more conservation programs or implementing new/different management practices?
- 28) Have there been any policies that have notably affected your management practices since you've been managing this land?
- 29) How have your management practices changed over the past 10 years? (20? 30? 40?)
Why have these changes taken place?
- 30) What are your long term goals for your farm? (Economic, social, environmental)
- 31) What does it mean to you to be a good farmer? Has this opinion changed at all over time?
Do you feel like you have access to resources that allow you to meet those standards?

Closing Statement-

Those are all the questions we have, do you have anything you'd like to ask before we go? Thank you very much for agreeing to share your experience, we really appreciate your contribution and hope that our research can be used to inform more effective and appealing conservation programs. If you would like, we can make a copies of our final paper available to you once we've finished. You have our contact information if there's anything else you'd like to ask later. Thank you again! Goodbye.

Appendix B-

Figures-

Figure 1)

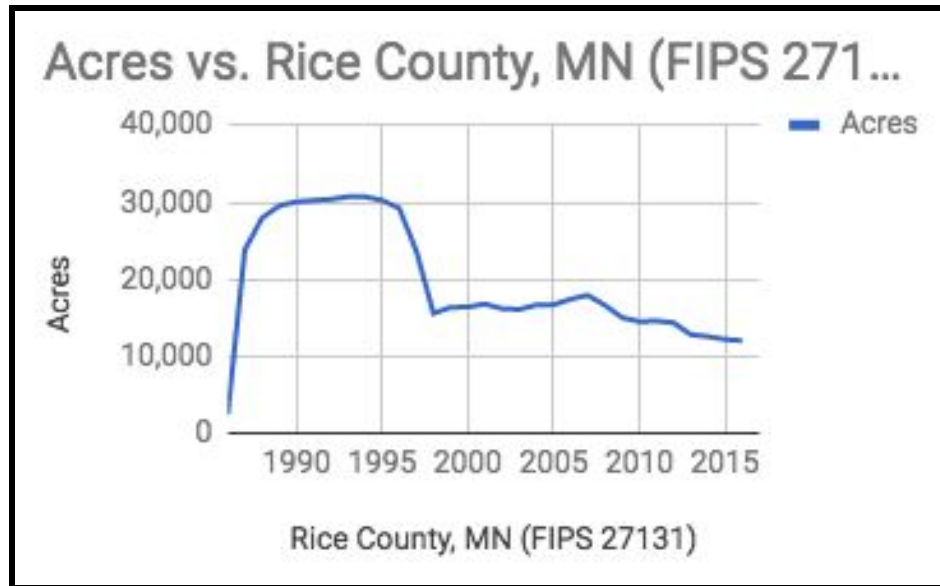


Fig. 1) This graph represents the changes in acres of land enrolled in the Conservation Reserve Program from the start of the program in 1985 until 2015 in Rice County.

Figure 2)

<i>1: Extra Income (on land they otherwise wouldn't farm)</i>	<i>2: Extra Income (on land they otherwise would farm)</i>	<i>3: Cost-Share</i>
It's mandated (buffer law)	The land is sensitive (although it could still be profitable)	Buffers
It's erodible ground that "shouldn't be farmed"	Would only farm it "if they're not going to pay me anymore"	Waterways
Enjoyment of wildlife habitat	It's on a hillside, lots of erosion	Wetland Restoration
Erosion Control	Can make more money in CRP than renting	Tree plantings
Land isn't productive	Was losing money, and thought enrolling in CRP would help	--
It was convenient (The land was too much work to farm)	CRP is "good for the land"	--
It's a pre-existing conservation structure (buffer) in place to prevent erosion	--	--

Fig. 2) This table is organized into the three major uses for CRP, with motivations for enrolling listed for each category. Column 1 includes the most different physical uses for CRP land, since it's land that wouldn't be farmed anyway, so it has a special purpose. There were only a few farmers who would farm their CRP ground, and most of them had previously taken land out of CRP and put it back into production. Finally, cost-share was another major reason to enroll in CRP. Although it also falls under column one as land that wouldn't be farmed if not enrolled, the main motivation is the ability to install the structure, not land that they would otherwise not be farming, so there is a slight difference there.

Figure 3)

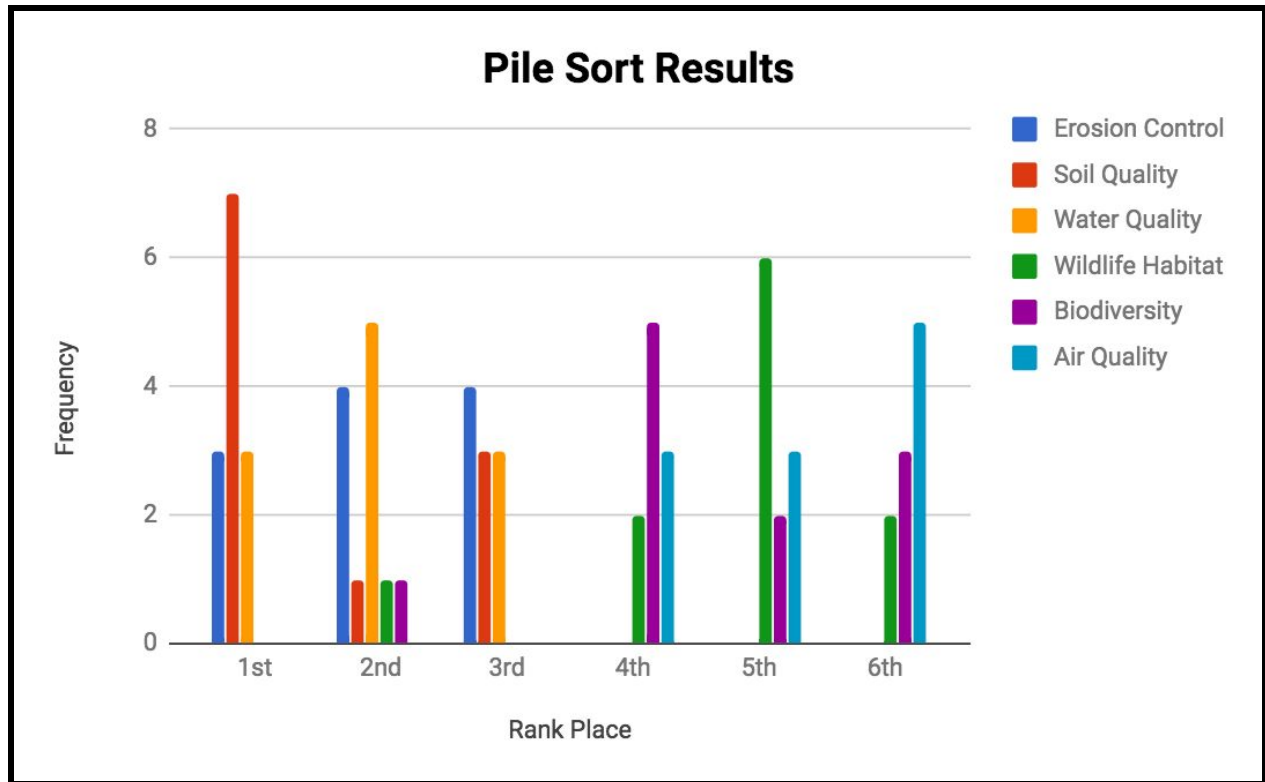


Fig. 3) This graph represents the frequency with which each conservation issue was ranked by farmers. The results were fairly uniform, with erosion control, soil quality, and air quality being ranked highly by all the farmers we interviewed, and wildlife habitat, biodiversity, and air quality being lower-ranked.