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Working Lands Conservation Contract Modifications: Patterns in Dropped Practices

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What Is the Issue?

Through agricultural conservation programs, including the Environmental Quality Incentives Program (EQIP), USDA contracts with farmers for the voluntary application of conservation practices. Most conservation practices are completed as scheduled. Sometimes, though, contracts are modified, and agreed-on practices are either replaced or dropped from the contract. Since dropped practices mean financial assistance amounts must be reallocated, often years later, and plans revised, the Natural Resources Conservation Service (NRCS), which administers EQIP, has a number of mechanisms in place to limit the frequency and types of contract modifications. The frequency with which different practices are dropped provides insight into how these mechanisms work; it also reveals a way of providing program managers with information about incentives for program participants to complete practices. A better understanding of the drivers of dropped practices could help NRCS with strategic planning and program design.

Why do some farmers and ranchers sign conservation contracts with USDA and then not implement all of the practices on those contracts?

- Practices may be dropped for reasons that can be broadly classified as "adaptive management," a response to changing conditions or information. Over the life of a conservation contract, circumstances beyond the control of participants sometimes require modifications to the scope and timing of practice adoption. Since responding to unexpected circumstances is necessary in any contracting environment, adaptive management can be a desirable outcome for the program.
- Practices may also be dropped for reasons that can be broadly classified as "unrevealed private benefits," not directly observable by NRCS staff and a challenge for any incentive-based, voluntary program. While most research on differences in private benefits suggests they influence degrees of willingness to participate in the program, the differences may also affect willingness to complete practices in a contract.

In this report, we address several questions related to dropped practices in EQIP. First, what evidence is there to suggest that dropped practices are associated with adaptive management? Second, what type of practices are most likely to be dropped from EQIP contracts? Are practices relatively low in-farm benefits more likely to be dropped? Finally, does contract structure—size (in dollars or acres), number of practices, or contract length—affect the likelihood of dropped practices? Using data from EQIP contracts that were originally signed in fiscal year 2010, we explore these questions.

What Did the Study Find?

For the 168,195 practices contracted through EQIP in fiscal year (FY) 2010, 78 percent had been completed (certified or partially certified) by the middle of FY 2014. About 8 percent had been scheduled for, or delayed to, 2014 or later. The remaining 14 percent of the original practices had been dropped.

About one-third of modification reasons on contracts with dropped practices are obvious cases of adaptive management, as indicated by recording of modification reasons such as "natural disaster" or "severe illness." Frequently, though, the reasons for modifications are ambiguous and do not clearly indicate that practices were dropped in response to changing conditions or information.

We find that practices with indicators suggesting low farm benefits are more likely to be dropped from EQIP contracts than practices with likely high benefits. Since 60 percent of dropped practices are on contracts with at least one certified (completed) practice, differences in private benefits between practices may lead participants to seek permission to drop a low-benefit practice after completing one with higher farm benefits. Finally, the timing of practices also matters; those most likely to be scheduled in later years of a contract (in year 3 or later) are also more likely to be dropped than practices implemented in the first 2 years.

One of the major program design questions for voluntary conservation programs is whether unrevealed private benefits are inherent in the structure of contracts that program participants help to develop and are willing to sign and whether contract structure affects the likelihood that practices get dropped. Using very simple measures of contract structure, the analysis shows that participants with a larger (higher cost or higher acreage) contract or a more complex contract (more practices or more years) were ranked higher for enrollment. The number of years on a contract did not show a statistically significant impact on relative ranking. Since farmers develop contracts through consultation with NRCS based on the natural resource concerns present on their farm, the link between contract structure and ranking indicates only the possibility that some participants may have included practices they planned to drop or replace in the future.

We estimate a model of how four simple measures of contract structure influence the likelihood of dropped practices, and we find that contracts with a larger number of practices on contracts are more likely to have a dropped practice. While this suggests reductions in the number of practices on a contract could reduce the number of dropped practices in the program, such restrictions could also potentially limit the ability of the program to address certain types of resource concerns.

How Was the Study Conducted?

The NRCS ProTracts database is used to manage contracts within EQIP and other working lands programs. For this study, data on fiscal year 2010 contracts were drawn from the database at two points in time: Data on the original contract specifications were pulled at the end of the 2010 fiscal year, and data on the later outcomes of the contracts were pulled during the spring of 2014. While EQIP contracts can be as long as 10 years, the large majority of contracts are 3 years or shorter, so most of the practices in the original contract specifications should have been completed by the spring 2014. The combination of the two datasets provides information on how the contracts were modified and which practices were dropped. A statistical model of the data using econometric methods provides the basis for estimates of the impact of contract structure restrictions on the frequency of dropped practices.