



Compliance of Conservation Contracts in Louisiana

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Motivation

The trend of defaulting NRCS conservation contractual obligations leading to non-compliance has become a pressing issue. Non-compliance is said to have occurred when a participating farmer opts out of the contract by choosing either cancellation or termination option, where unanticipated external factors fairly affect the benefit-cost ratio making contractual breach optimal for one or both parties.

Cancellations are a mutual agreement between the NRCS and the contract participant to end the contract for reasons beyond the participant's control. The reason could either be related to land ownership, natural disasters, environmental or archaeological concerns, economic and personal hardship, and alike. Cancellations are not considered adverse actions and do not count against participants in future program participation.

Unlike cancellations, terminations are when NRCS unilaterally ends the contractual agreement due to breaching of the contract terms and conditions by the farmer. This is considered an adverse action and participants may have to pay liquidated damages or return payments previously issued from the contract.

NRCS deducts points from applicants' screening and ranking if they have had a contract terminated within the past 3 years. While this does not prevent participants with terminations from applying or potentially receiving another contract, it does place them in a "low" priority category and reduces their chance of funding, eventually affecting participation.

So far....

A total of 20,265 cost-share contracts were awarded in Louisiana between 1997-2019 at the rate of 1,536 contracts per year and around 13 contracts per county. The non-compliance rate is 19%. The standard deviation of the non-compliance ratio appears higher implying that non-compliance varied significantly across counties and over time.

During the period of 1996 Farm Bill (1996-2002), non-compliance was attributed more to the termination phenomenon. However, since the 2002 Farm Bill, the cancellation rate remained consistently higher while the termination rate has been consistently lower (the arrow in the picture shows the crossover).

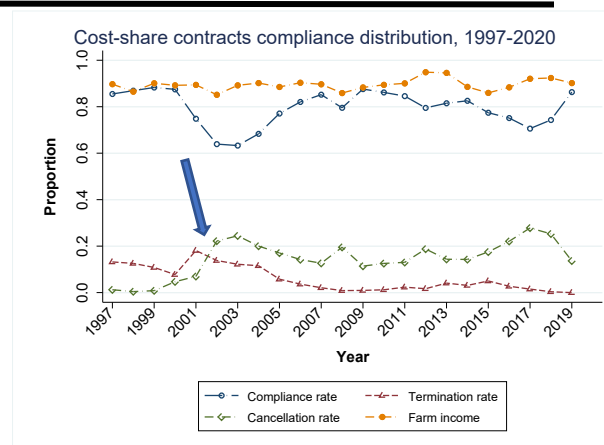


Fig 1. Change in contract (non)compliance in Louisiana

The trend of higher cancellation and lower termination rates may be due to the strategic advantage offered by the cancellation option that includes non-assessment of liquidated damages and forfeiture only to remaining monetary obligations. Moreover, cancellation is termed as mutual. These issues provide impetus to empirically investigate some major research questions such as (1) What is the level of non-compliance in cost-share programs? (2) What factors affect contract non-compliance? (3) Does empirical evidence support the presence of moral hazard in cost-share programs? The current report provides a snapshot of the results.

Contracts

The mean payment per cost-share contract in Louisiana is ~\$16,900; however, the median payment is only ~\$9,700. We also find a difference in average obligations for compliant and non-compliant contracts. The mean (median) value for obligations per acre for completed, cancelled, and terminated acres are \$286.74 (\$86.04), \$151.23 (\$34.82), and \$105.08 (\$24.63), respectively. Similarly, the average acreage under contract is 250 acres with the median being 152 acres. This is almost ~50% of the average farm size in Louisiana as per the 2017 Census of Agriculture.

The median acre under completed contracts is 1,299 acres while that for cancelled and terminated contracts are 240 acres and 130 acres, respectively. This shows that contracts enrolling larger acres have been historically reaching completion.

Spatial clusters

The presence of spatial clusters of (non)compliance provides insights for future cost-share contracts allocations. The maps show where the compliance and non-compliance rates are higher based on cancellations and terminations.

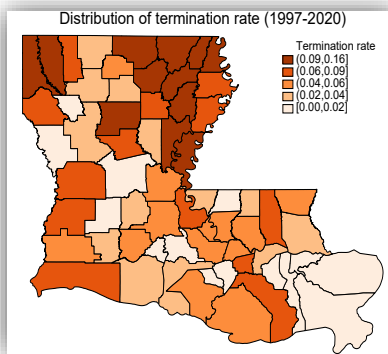
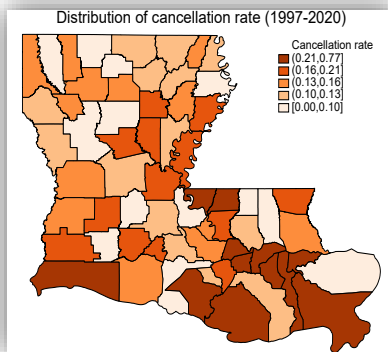
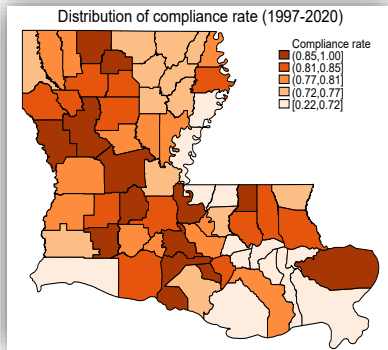


Fig 2. Spatial distribution of (a) compliance, (b) cancellation, and (c) termination rates in cost-share programs in Louisiana

Incentive payment level

Based on estimates from the fixed-effects analysis, a one percentage point increase in contract payment level reduces the overall non-compliance rate by ~ 0.08 percentage points at the county level and this effect is significant at the 5% significance level.

The available data from NRCS shows that total non-compliance amounts to $\sim \$20$ million in Louisiana. An increase in payment per contract by one percentage point would be equivalent to ~ 0.2 million. A one percentage point increase in payment per contract will lead to compliance of additional 160 contracts that roughly implements conservation practice in $\sim 767,000$ acres generating remarkable off-farm and on-farm benefits.

Effect of indemnity payments

We find that $\sim 48\%$ of the contracts were assigned to the higher losses areas which implies that farmers are more prone to sign up cost-share contracts if they have a history of loss. The loss ratio is directly proportional to the level of indemnity payments made at the county level, providing a glimpse of the impact of both weather and market-related shocks.

Concluding remarks

The choice of farmers whether or not to comply with the contract could be determined not only by preferences and risk aversion but also by socioeconomic and market factors. In other words, there is an interplay of both financial and non-financial motives to affect contractual obligations or compliance. Moral hazard is an incentive problem whereby participating farmers might have less incentive to continue the terms and conditions of contracts given higher opportunity costs arising from changing (non)market conditions. The analysis shows the level of completion of conservation obligations in the state which provides a point of evaluation of the overall success of such programs in achieving its goals of natural resource conservation.

Questions and comments:

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