Conservation and Community: The Local Economic Impacts of the Conservation Reserve Program

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1 Overview

The Conservation Reserve Program (CRP) is the largest payment for ecosystem (PES) services program in the United States (House Committee on Agriculture, 1985). The program provides rental payments to agricultural producers for retiring ecologically sensitive croplands that face a high risk of environmental degradation. It currently has a budget of approximately $2.2 billion per year and enrolls 24.6 million acres (4%) of US cropland in long-term contracts to provide conservation benefits (Economic Research Service, 2024).

Since its inception, the program has faced concerns that retiring land from agricultural production could weaken rural economies by reducing demand for agricultural services and increasing absentee landownership and out-migration. However, the program's impacts are multifaceted. For the agricultural sector, the net effects are ambiguous: reduced crop production might be offset by rental payments that help stabilize farm incomes and sustain local spending. More broadly, by restoring habitat and improving water and soil quality, CRP can enhance remaining agricultural activities, boost environmental amenities, and support recreation, lodging, and retail. Aesthetic improvements from converting cropland to natural cover may capitalize into higher property values. These forces can shape migration: weaker demand for agricultural labor may encourage out-migration, while higher amenity values and more stable incomes may help retain or attract residents, with spillovers to non-tradable local sectors. A further complicating factor is that, some CRP acres enrolled in CRP may have been marginal in agricultural production or likely to remain fallow even in the absence of the program (Aspelund and Russo, 2025). Enrolling such non-additional acres might not meaningfully alter environmental conditions or generate any downstream economic impacts.

Our study provide a comprehensive evaluation of the CRP's economic impacts on rural communities during 1995-2022. To capture the multiple channels through which the program influences local economies, we analyze its effects on property markets, rural businesses and employment, and migration patterns. Together, these outcomes offer a holistic view of the program's broader general equilibrium effects. The last comprehensive study in a similar spirit was conducted by Sullivan et al. (2004), which examined trends in population, employment, farm-related businesses, and land use in relation to CRP enrollment during 1986–2002. Since then, however, the program has undergone substantial changes, including broader objectives, adjustments to enrollment caps and rental rates, and new provisions including farmable wetlands and grazing options. External economic conditions such as commodity prices and agricultural land market dynamics have also shifted over time. These developments highlight the importance of revisiting CRP's economic effects with modern econometric methods and spatially explicit, administrative data to inform current policy debates.

Lawmakers are actively debating CRP's future; some have proposed shifting conservation funding to other farm bill programs, while others seek to strengthen the program. A recent bipartisan bill, "CRP Improvement and Flexibility Act", was introduced in the Senate in July 2025 and in the House in September to expand key provisions including protecting wildlife habitat, improving grazing access, increasing payment limit, and allowing for emergency haying in response to drought. An in-depth understanding of CRP's socioeconomic impacts on rural communities will provide quantitative evidence to inform these debates and guide future program design. Our study is of direct interest to policymakers. It was developed in collaboration with coauthors at the USDA through a cooperative agreement.

2 Research Design and Preliminary Findings

The analysis comprises three components examining the effects of CRP on nearby property values, rural employment, and migration. Because of the different nature of the CRP's effects on these outcomes, we employ data of varying spatial resolution and apply different empirical approaches for each. The following sections describe these components in detail.

2.1 CRP Enrollment and Property Values

We examine the benefits of CRP to nearby homeowners using a repeat-sales hedonic framework that relates changes in home prices to changes in the amount of nearby CRP land. The analysis links the near universe of residential transactions for the years 2012–2022 from CoreLogic with field-level data on CRP enrollments over the same period. While previous research has examined the effects of CRP on agricultural and developed land values, previous studies have relied on county-level data; we are the first study to use field-level CRP enrollment data in combination with individual property transactions. For each property, we calculate total CRP acreage within 1,000 meters at the time of sale, as well as a break-down by land cover type (e.g. grass, trees, wetlands, and other) based on each parcel's contracted CRP practice.

We model the price of property i in time t, P_{it}, as a function of the number of hectares

enrolled in the CRP within distance d of property i at time t, CRP_{it}^{d}. The estimating equation is:

$$\log(P_{it}) = \beta^{d} CRP_{it}^{d} + X_{it}'\theta + \alpha_i + \gamma_{s(i),y(t)} + \delta_{m(t)} + \varepsilon_{it}. \quad (1)$$

The primary challenge to causal identification here is that there may exist unobserved factors that affect property values that are also correlated with the presence of nearby CRP lands. The property fixed effects, α_i, account for any such unobserved factors that are constant within properties over time. State-by-year fixed effects ($\gamma_{s(i),y(t)}$) account for any state-level aggregate trends in prices and CRP enrollment, such as statewide economic shocks. Month-of-year fixed effects account for seasonality in home sales prices. Remaining factors that could potentially bias our estimates vary over time within states. These factors may include population, income, total employment, and residential building permits, which we control for in the vector X_{it}.

Preliminary results indicate small positive effects of CRP on values of nearby properties. We find that a 10 hectare increase in CRP land within 1 km of a home increases its property value by 0.5 percent. This effect is heterogeneous across land covers, with the most pronounced effect from CRP land converted to tree cover. Extrapolating to the universe of US properties, we estimate the CRP contributes approximately $3 billion to property values nationwide.

Importantly, our results indicate that the CRP is generating economically meaningful improvements in the local environment. These results are not necessarily at odds with prior work that finds that a large share of the land enrolled in the program would have been retired form cropping even in the absence of payments (Aspelund and Russo, 2025; Rosenberg and Pratt, 2024) because CRP enrollment requires land management practices beyond simply not cropping, such as restoring native grasses and replanting trees, that have been shown to capitalize into home values in other contexts (Kovacs et al., 2022). While it is likely that not all of ecosystem service benefits of CRP land are capitalized into nearby residential property values—some of the benefits may accrue at a broader scale, or to agricultural producers specifically—our approach provides credible identification for a subset of CRP benefits, which accrue to residential property owners, and have not explored by previous studies.

2.2 CRP Enrollment and Rural Employment

We study how CRP enrollment affects rural businesses and employment using a panel dataset by industry and county spanning 1995-2022. To capture rural economic outcomes in each county, we calculate establishment count and employment within the rural areas based on establishment-level data from the National Establishment Time Series (NETS) database. We group industries into three categories based on their expected response to CRP enrollment. The first group consists of agriculture and related industries that may either benefit from CRP rental payments or face reduced demand due to land retirement. The second group includes local non-tradable industries, such as retail, accommodation and food services, and recreation-related industries, which could be indirectly influenced through spillover effects. The third group captures industries that CRP is unlikely to affect, including mining, utilities, construction, non-agricultural manufacturing, public administration, and

other sectors, which serve as the control group in our estimation.

We model the differential trends in the agricultural and local non-tradable industries, relative to the control group, as a function of changes in CRP acres in the preceding 5 years:

$$Y_{ict} = \sum_{g} \sum_{h \in (0,5)} \beta_{gh} \cdot \mathbf{1}(Group_i = g) \cdot \Delta CRP_{c,t-h} + X'_{ct}\gamma + \lambda_{ic} + \eta_{it} + \theta_{st} + \epsilon_{ict} \qquad (2)$$

where Y_{ict} is log employment or establishment count. The main regressors are interactions between industry group indicators ($\mathbf{1}(Group_i = g)$) and a series of year-on-year changes in CRP enrollment ($\Delta CRP_{c,t-h} = CRP_{c,t-h} - CRP_{c,t-h-1}$). This distributed lag model captures not only the contemporaneous effects of CRP enrollment changes, but also how their effects unfold over multiple years. The model includes a number of covariates (X_{ct}) to control for evolving conditions in the counties, accounting for changes in non-CRP land cover and economic conditions, as well as industry-by-county, industry-by-year, and state-by-year fixed effects.

Preliminary results suggest that CRP enrollment drives differential positive effects on employment in both the agricultural and spillover industry groups compared to the control group. The contemporaneous impact is strongest and declines over time. We find that a 1,000-acre increase in county-level CRP enrollment leads to approximately 1% higher employment in agricultural industries and 0.7% higher employment in spillover industries by the end of year 5. Consistent with the property value analysis, tree cover also appears to generate the strongest employment responses. The positive impact the CRP on employment may be explained by the program's investment in rural economies; payments to farmers may support more intensive agriculture on fields that remain cropped, increased spending on agricultural services, or increased spending in the community.

2.3 CRP Enrollment and Migration

In this section, we study how CRP enrollment influences migration dynamics in rural counties over the 2001-2022 period. We measure inter-county migration using data from the US Internal Revenue Service (IRS) Statistics of Income (SOI) program (U.S. Internal Revenue Service, 2025). We estimate the impact of CRP enrollment on migration rate using a distributed lag model similar to the analysis of rural economies.

The preliminary results suggest that CRP enrollment has an immediate negative effect on net in-migration, which reverses to a positive effect starting in year 3. Both the initial negative effect and subsequent positive effects are small in magnitude, however, leading to a minimal long-term cumulative effect. These results suggest that concerns about CRP contributing to rural depopulation are not borne out in the data. If anything, the program appears largely neutral with respect to migration outcomes, implying that its primary effects should be understood through its environmental and land-use objectives rather than through population dynamics.

3 Policy Implications

Across outcomes, the preliminary evidence indicates that CRP enrollment generates modest but positive economic benefits, with no evidence of sustained depopulation of rural areas. From a policy perspective, the results suggest that the CRP can advance conservation objectives without harming rural economies. It is important to recognize that CRP spending primarily represents transfer payments to landowners, meaning that the observed external benefits to local communities constitute net social gains. The findings also challenge the view that most CRP enrollment is non-additional and might not generate substantive changes in the local environment. Indeed, prior work investigating the additionality of CRP enrollments focuses on cropland requirement but stops short of quantifying the additionality of conservation practices on enrolled lands. As policymakers debate whether to pare down or strengthen the program, these results underscore the importance of considering its broader socioeconomic implications. They also highlight opportunities to align CRP design more closely with rural development goals. In particular, while tree cover tends to be more costly to establish and maintain than other cover types, it generates the most pronounced positive effects in both property and labor markets, suggesting that its relative benefits may justify its higher costs.

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