Conclusions

In evaluating the economic implications of high Conservation Reserve Program (CRP) enrollment for surrounding rural communities we have used two very different approaches. For the first time, econometric models were used to estimate the statistical importance of various factors, including CRP enrollment, affecting economic trends immediately before and in the years after CRP was implemented in 1986. The second approach relies on a series of social accounting matrix (SAM) multiplier models to simulate the local economic impacts in regions with high levels of CRP enrollment had CRP expired in 2002. This extends approaches adopted by other researchers who attempted to predict CRP's impact on local economies with input/output models, such as IMPLAN.

While it may be tempting to compare the employment impacts generated by these complementary approaches, caution should be used. The two analytical approaches have their strengths and weaknesses, but each is fundamentally different.[68] The econometric models used in this report try to measure CRP's short and longrun impacts within the context of other local, regional, and global fluctuations that influence a community's development. In a sense, we examine how rural counties were faring 5 to 10 years after land was enrolled in the CRP and economic adjustments had been underway. The simulation models developed in this report assume these other factors will remain constant. Given fixed sector-to-sector relationships, as the size of the CRP changes, industrial sectors, workers, and landowners are expected to change in predictable ways to accommodate the CRP. As such, simulation models of the type developed here estimate the *potential size of the adjustments* that economies will face rather than the actual outcome of a policy change.

Both approaches are useful, but on their own give an incomplete picture of CRP's economic effect on rural America. By modeling industrial and geographic linkages that determine how national and regional economies might be affected by CRP's expiration, we show how large the potential adjustments might be, how impacts are distributed within the economy, and how they vary across geographic space. And since much of the previous empirical work concerning CRP's economic impacts has been based on similar types of simulation models, this also demonstrates how sensitive estimates are to assumptions about the initial policy shock. On the other hand, the econometric results provide evidence that rural economies can successfully adjust to the shifts in demand that accompany high levels of CRP enrollment. Even in areas that appear to be very sensitive to CRP enrollments, growth trend impacts appear to be transitory.

Both analytic approaches suggest that the economic impacts of CRP enrollment vary widely from one area to the next, but that the program's aggregate rural economic impacts have been modest. Factors other than CRP determine longrun population and employment trends in rural America and in most cases CRP plays a minor role in the economic and social trends observed in rural counties. Nonetheless, there are significant interactions between CRP's influence and these other economic drivers which can make blanket statements about CRP's effects misleading in specific cases.

[68] While econometric models attempt to capture and identify the effects of multiple statistical relationships, their weakness is a failure to explicitly account for the underlying economy-wide structure. Simulation models capture the economywide linkages at one point in time, but they hold these relationships constant when estimating the effects of subsequent changes.

Concerning employment impacts, we find that high CRP enrollment was associated with a net loss of jobs in some rural counties between 1986 and 1992, but this negative relationship did not persist throughout the 1990s. In particular, farm-related businesses, such as input suppliers and grain elevators, continued contracting throughout the 1990s, but other business expansions eased the community impact. Our research suggests one likely source of job growth in areas with high levels of CRP enrollment. CRP's effects on wildlife and water quality led to an increase in outdoor recreational expenditures of as much as $300 million per year, adding a significant stimulus to rural economies.

This report demonstrates that CRP's employment impacts are a function of the local economy's role as a source of goods and services. We find evidence that rural counties with small agricultural service centers were likely to be far more sensitive to CRP enrollment than were counties that lacked such centers. On a different scale, we also found that multicounty regions that were less reliant on the national economy (and so, served as their own "service center") were more sensitive than regions with stronger interregional ties.

Despite concerns to the contrary, CRP's population impacts were slight at the county level, if present at all. When county characteristics are taken into account, post-1985 population trends in rural counties were largely unaffected by high levels of CRP enrollment. The CRP did have an effect on the structure of farm ownership and operation. We found that the relationship between the level of CRP enrollment and changes in the number of beginning farmers is sensitive to the way land is enrolled in the program. Whole-farm enrollment was negatively associated with changes in the number of beginning farmers, but this was offset by a positive association between beginning farmer trends and partial-farm enrollment. We found no statistically significant evidence that CRP participation encourages absentee ownership.

Three cautionary notes should be raised regarding the interpretation of our estimates. As was discussed earlier in this report, our analyses do not address small-area impacts of CRP enrollment. Rather, we examine both countywide growth trends and CRP's likely effects within multicounty areas. It seems likely that if CRP enrollment is heavily concentrated within specific subcounty areas (such as towns and minor civil divisions), the associated economic impacts within these smaller areas might be more significant than those found for counties and multicounty areas.

Second, our models, like virtually every other attempt to model the economic impact of the CRP, do not adequately reflect the value of associated environmental consequences. As these models currently stand, they are not equipped to do so. This limitation is largely due to the uncertain spatial distribution and nonmarket nature of environmental benefits, but it also derives from the models' structural focus on jobs and income as measures of economic health.

From an economic development perspective, job and income growth tend to be viewed as signs of economic progress. But it does not necessarily follow that every policy that leads to new jobs furthers societal goals. CRP was initiated to provide environmental benefits to surrounding communities and

The Conservation Reserve Program: Economic Implications for Rural America / AER-834
Economic Research Service/USDA

to the Nation as a whole. In addition, if CRP reduces erosion, sedimentation, and windblown particulates, its expiration could force households, firms, and governments to increase expenditures to counteract these effects. Paradoxically, doing so could increase employment and income in an effort to maintain the previous level of well-being. To the unemployed or under-employed, job growth holds out the prospect of being able to earn a decent living. But from an economic development perspective, it is important to ask whether resources are being put to their best use. As measures of economic progress, revenue, income, and jobs are incomplete.

For example, we model CRP payments as income transfers. An alternative view is that CRP enrollees provide nonmarket environmental services for which they are being paid (Siegel and Johnson, 1991). Then, CRP farmers who choose to return to crop production when their CRP contract expires are merely changing jobs (from conservationist to producer) rather than filling new jobs. Viewed in this way, our approach might overestimate the number of jobs created if CRP expired.[69]

Finally, the econometric analyses do not correct for spatial autocorrelation or attempt to rigorously model the adjustment process. In an effort to match high-CRP counties with control counties having similar socioeconomic and agricultural characteristics, matched pairs were often selected from the same geographic area. This raises the possibility that spillover effects could blur the distinctions between high-CRP economies and their low-CRP counterparts. For example, environmental benefits (and any associated jobs) from CRP enrollment are likely to be distributed over a large area, making it more likely that comparisons of high-CRP and adjoining low-CRP counties show significantly different trends. Then too, as we have seen, high CRP enrollment may have a particularly large effect on counties that serve as agricultural service hubs. If these happen to be low-CRP counties adjacent to high-CRP areas, our analyses may understate the effect of CRP enrollment on job trends. Finally, to the extent that CRP increases farm commodity prices, the benefits of higher net farm income will accrue to areas with fewer enrolled acres. Taking the spatial relationship between high- and low-CRP counties and their neighbors into account could shed light on the potential seriousness of such problems.

To accommodate local economic adjustments, we assessed the short and longrun relationship between CRP enrollment levels and socioeconomic trends. However, no attempt was made to rigorously determine the direction of causality or to study the lags involved in this adjustment process or the role of specific industries. Does CRP act as a driver in determining local socioeconomic trends or does it merely reflect those trends? If there is a causal relationship between CRP enrollment and job growth, how fast does the local economy adjust to having cropland retired from production? Is the initial loss in economic vitality focused on farm-related businesses, as one would expect? Is the longer term recovery (or return to trend) due to increased recreational activity, as has often been surmised but never explicitly demonstrated? These questions are left for future research.

[69] Whole-farm CRP enrollees returning to farming could potentially generate a minor double-counting of new jobs created in agriculture. Based on our earlier estimate of the 142,000 whole-farm CRP enrollees, 51 percent, or 72,000 farmer operators would likely allow their land to return to cropland (based on our earlier estimate). Since most whole-farm enrollees are retired and lifestyle farmer operators, most are likely to rent their farmland to existing farm operators rather than operate it themselves. If 80 percent of whole-farm enrollees rent out their land, roughly 14,000 whole-farm CRP enrollees might return to cropland production if CRP expired, reducing the number of jobs created by CRP's hypothetical expiration by nearly 8 percent. However, if 100 percent of whole-farm enrollees rented out their land instead of farming it themselves, the double-counting issue raised by Siegel and Johnson (1991) would not apply. Only a survey of farm households in a post-CRP environment would resolve this issue.

68

The Conservation Reserve Program: Economic Implications for Rural America / AER-834
Economic Research Service/USDA