

Conclusion

At planting time, the prices and yields that will be realized at harvest are uncertain, and so any support payments contingent on price and/or yield are likewise uncertain. This report examines how the uncertainty in domestic commodity support payments for corn may differ between traditional-style approaches (defined as price-based payments plus yield-based disaster payments) and two revenue-based approaches (target and market). For the scenarios developed here, the support program parameters were chosen so that the expected value of total national payments is the same across the programs. Hence, from a national perspective (e.g., the taxpayer), the programs differ only in the variability (or volatility) of payments and in differing probabilities of making any particular level of payments.

Results seem to favor revenue-based payment scenarios over the traditional-style support. Variability around the total expected annual payment was lower, as was the probability of high payments. These results suggest that revenue-based support may reduce budgetary uncertainty for the Federal Government and better ensure that agricultural support outlays stay below a predetermined level.

This report also examined the impact of the support programs on total gross revenue per acre (i.e., gross revenue plus the support payment). The variability of corn revenue (measured in terms of coefficient of variation) at the county level in almost all U.S. corn producing counties was lower under the revenue-based alternatives than under the traditional-style approach. The reduction in revenue variability was most pronounced in Corn Belt counties, which tend to have a high correlation of county yield with national average yield.

On the other hand, mean revenue-based support may be higher or lower at the farm level (and at the county level, as measured in this report) than mean revenue from traditional-style support. In many Corn Belt counties, price-based support overcompensated on average for revenue losses relative to revenue-based support. Hence, while revenue-based support scenarios generally reduced the downside risk of farming more than did the traditional-style support, farmer preferences for type of support would depend on their preferences for increasing mean returns versus decreasing the variability of returns.