

CARD Policy Brief 10-PB 2
May 2010

Costs and Benefits of Moving to a County ACRE Program

by Bruce A. Babcock

This policy brief was taken from Professor Babcock's testimony at a hearing on May 13, 2010, before the U.S. House Committee on Agriculture to review U.S. agricultural policy in advance of the 2012 farm bill.

Published by the Center for Agricultural and Rural Development, 578 Heady Hall, Iowa State University, Ames, Iowa 50011-1070; Phone: (515) 294-1183; Fax: (515) 294-6336; Web site: www.card.iastate.edu.

© Author(s). The views expressed in this publication do not necessarily reflect the views of the Center for Agricultural and Rural Development or Iowa State University.

Iowa State University does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, gender identity, sex, marital status, disability, or status as a U.S. veteran. Inquiries can be directed to the Director of Equal Opportunity and Diversity, 3680 Beardshear Hall, (515) 294-7612.

Executive Summary

Better integration of the different programs that comprise the farm safety net seems inevitable in the next farm bill given widespread public concern over the rapidly growing federal debt. With \$5 billion in direct payments flowing annually to farmers who own or rent base acres without regard to farm income, \$7 billion flowing to crop insurance companies over the last two years, and \$2.6 billion flowing to cotton farmers in the last two years from programs that violate our trade commitments, there is substantial room for improvement. One path toward better integration would be to modify the ACRE (Average Crop Revenue Election) program so that it covers county revenue rather than state revenue. For approximately the same cost as the direct payment program, 100% of planted acres could be covered at a 95% coverage level. Accounting for county ACRE payments before crop insurance payments are made could easily reduce the cost of the crop insurance program by more than \$4 billion per year.

Keywords: ACRE, agricultural risk, Average Crop Revenue Election program, crop insurance, direct payment program, farm bill, farm payments, SURE, Supplemental Revenue Assistance Payments Program.

Costs and Benefits of Moving to a County ACRE Program

by Bruce A. Babcock

Much has been written about the pros and cons of government support for agriculture, and whether agriculture and society are helped or hurt by this support. This discussion is intellectually useful and interesting, but Congress has shown repeatedly that much of this discussion is largely irrelevant. Support for agriculture is not going away. Given this fact, economists can play two productive roles in helping design support mechanisms. The traditional use of economic analysis is to ignore wealth transfers for the most part and to focus on ensuring that agricultural support programs do not result in large efficiency losses. The second role is to analyze programs with an eye toward understanding the distributional consequences of programs to make sure that taxpayers know where their money is flowing and consumers know about any hidden costs that are reflected in the prices they pay for their goods.

In this policy brief, the current state of U.S. agricultural support programs is reviewed with an eye toward determining whether financial support for farmers arrives from taxpayers in a cost-effective manner, arrives when farm financial stress exists, and arrives without unintended consequences on the agricultural sector, the environment, or on our trading partners. An alternative to the current set of farm programs is presented that shows how the cost effectiveness of government support for agriculture can be improved. This alternative is to move the ACRE program (Average Crop Revenue Election) from the state level to the county level. Such a move would result in more efficient delivery of protection from both price and yield risk than the current mechanisms provide.

Overview of Existing Programs

The cost of support mechanisms over the first two years of the current farm bill include crop insurance at \$13 billion, direct payments at \$10.4 billion, and cotton countercyclical and marketing loan payments at \$2.6 billion. ACRE and SURE (Supplemental Revenue Assistance Payments) are the other two programs that could generate substantial costs in the future. A closer look at each of these programs shows that there is a lot of room for improvement in the design of support mechanisms.

The crop insurance program has cost taxpayers \$37 billion since 2000. Of the \$13 billion in support over the last two years more than \$7 billion flowed to companies. Farmers received indemnity payments (net of premium) totaling \$4.5 billion in 2008 and \$1.5 billion in 2009. A large proportion of the 2008 net payments came about because the price guarantees were so high that even the modest price drops that we saw in 2008 generated lots of indemnity payments. Nobody should begrudge farmers these indemnity payments because they were made as a result of an insurance contract, but should the government really be in the business of running a program that makes payments to

farmers even when farm income is at an all-time record high? If the price drop in 2008 had not occurred, then the crop insurance industry would have been paid an additional \$2 billion in 2008 to run the program. It just does not make sense to see such a large portion of farm program costs going to a middleman.

The crop insurance program can also cause environmental problems. The ability of farmers to transfer yield histories on productive ground to high-risk grassland that is prone to crop loss can dramatically increase the profitability of planting on susceptible ground. The Government Accountability Office documents how subsidizing risk on susceptible land can lead to loss of native grassland.¹

In contrast to crop insurance payments, which incur delivery costs of a dollar for each dollar delivered to farmers, direct payments incur minimal delivery costs because they are deposited directly from the Treasury into farmers' bank accounts. But direct payments fail the accomplishment test.

The two original justifications for direct payments were that they provided "Green Box" income support payments not subject to World Trade Organization (WTO) limits on trade-distorting support, and that they were transition payments that allowed farmers time to transition to lower support levels. But we are no longer in danger of exceeding WTO limits on trade-distorting support and we are long past any transition period. Furthermore, farm profits have been high since 2003.

Direct payments no longer have a public justification, particularly in these times of exploding federal debt. The public and members of Congress have shown widespread distaste for the bailouts of big banks, GM, Chrysler, and AIG. But at least these interventions were justified in that the economy was threatened with a far more severe downturn if these companies were allowed to fail. Farmers receive \$5 billion a year for nothing more than owning or renting farmland that happens to have base acres. Despite mighty efforts by some of the world's best agricultural economists to find some market impact of direct payments, the evidence suggests that they represent "money for nothing." They arrive like clockwork even when high crop prices and high yields combine to generate record income levels, leaving nothing in their wake. Surely we can accomplish more with \$5 billion per year than simply depositing it in the bank accounts of land owners and renters with base acres.

The third program that has generated large payments since 2008 is the cotton program. Regardless of what one thinks about marketing loan and countercyclical payments for cotton farmers, these two programs must change in the next farm bill if the U.S. is to come into compliance with the WTO ruling that Brazilian cotton farmers were harmed by U.S. cotton payments. We do not know what will replace the current program, or if cotton producers will devise a replacement program in case Brazil's plans for retaliation

¹ See "Farm Program Payments Are an Important Factor in Landowners' Decisions to Convert Grasslands to Cropland," GAO-07-1054, September 2007.

finally induce USDA and Congress to put the cotton program into compliance. I do know of one farm organization that has invested significant resource in designing new programs for the new farm bill. The milk producers seem poised to propose replacing their long-standing price support program with a new margin insurance program that would protect producers against large increases in feed costs or large decreases in milk prices. It remains to be seen whether cotton producers will follow suit.

Two new programs, ACRE and SURE, were passed in the 2008 farm bill. ACRE is a state revenue insurance program that generates payments if state revenue falls below revenue trigger levels. There are two problems with ACRE. The first is that ACRE duplicates coverage that is available from the crop insurance program. The major source of crop loss at the farm level is excess heat and/or lack of moisture. It is often the case that state yields are low when crop losses are low. In recent years however, the major source of crop insurance payments has not been crop loss but rather price declines. Again, when prices drop, ACRE is likely to trigger payments. In either case, farmers are provided duplicate coverage through crop insurance and ACRE. Why should taxpayers be asked to fund both programs? The second problem with ACRE is that farmers have little faith that state-level coverage against yield declines provides them with adequate coverage against farm-level yield losses. I will return to this topic later.

The purpose of SURE is to provide supplemental whole-farm coverage to provide payments when crop insurance deductibles are not exceeded. The problem with SURE is that it is so complicated that almost nobody knows when a payment will be triggered. To calculate SURE guarantees and payments requires knowledge of what crop insurance a farmer buys, a farmer's crop insurance yield, a farmer's countercyclical base yield, direct payment levels, crop insurance indemnity payments, countercyclical payments, marketing loan payments, and ACRE payments. The complexity of the program is caused by the need to make sure that farmers are not over paid for crop losses. It is ironic that such an effort is expended to ensure that a farmer suffers a whole-farm loss before a SURE payment is received when direct payments will flow to the same farmer even in the most profitable years.

To summarize, our current set of programs consists of crop insurance, which costs too much; direct payments, which are no longer justified; cotton payments, which need to be brought into compliance; ACRE, which duplicates crop insurance but provides inadequate coverage against farm yield losses; and SURE, which tries to make up for crop insurance deficiencies. This broad look at current programs leads to two conclusions. First, providing financial help to farmers when there is financial difficulty would seem to be a necessary condition for the design of a cost-effective program. Second, there simply is no reason why billions of tax dollars should be spent delivering financial help to farmers if much less expensive alternatives are available. Before examining one such alternative, the question of whether the public sector has the capability of delivering efficient financial help needs to be addressed.

FSA or RMA?

The two new programs passed in 2008, ACRE and SURE, demonstrated that crop insurance-type programs do not have to be administered by the Risk Management Agency (RMA). The Farm Service Agency (FSA) administers both programs. RMA has assisted FSA with verification of farm yields, but FSA has implemented both programs. Delivering programs through FSA can cost much less than through RMA because FSA does not pay agent commissions and private companies do not have to be paid to take on a portion of the underlying risk.

But not all programs can be effectively delivered through FSA. The private sector does a much better job adjusting on-farm losses, calculating premiums for the wide array of available programs, and being consumer-friendly in handling applications and paperwork. That is, just as the government is ill-suited to run an automobile insurance program, it is ill-suited to provide individually tailored crop insurance.

But it does not take the efficiency of the private sector to administer a simple program. And a large portion of the risk in agriculture can be covered by a simple program. When the price of a commodity falls, it is easy to measure the price drop if the commodity price is tracked by NASS (USDA's National Agricultural Statistics Service). When a widespread crop loss occurs, an easy measure of the crop loss is given by the county average yield, if it is measured by NASS. For NASS-covered crops a large proportion of farm-level risk can be measured and insured by a program that integrates current acreage reporting requirements of FSA with NASS measures of price and yield.

It is common sense to look to the private sector to provide most goods and services. But it makes no sense for taxpayers to pay a large fee to the private sector to provide a service that the public sector can provide at a fraction of the cost. And, as I will discuss, it is straightforward to design a program that covers a large proportion of farm-level risk, that can be easily administered by FSA, that is readily affordable, and that allows the private sector to provide the kind of insurance coverage that only the private sector can provide.

County ACRE Program

ACRE was developed in the 2008 farm bill at the behest of those who believe that farm program payments should be targeted at revenue rather than price. After all, it is revenue that pays production costs, not price or yield. But the usefulness and acceptance by farmers of ACRE has been limited because of budget and political considerations. Budget considerations resulted in ACRE covering only 83.3% of planted acres rather than 100%. This makes it less suitable as a substitute for crop insurance. In addition, farmers who choose ACRE give up 20% of direct payments, making the participation decision more difficult. Political considerations primarily involved justified concerns by the crop insurance industry that a strong ACRE program would reduce their compensation from taxpayers. Thus there was no integration of ACRE with crop insurance and ACRE insured state revenue rather than county revenue. In addition, the requirement that a

farmer must demonstrate a farm-level loss before receiving an ACRE payment made the program much more difficult to administer.

It would be much simpler and more useful to change the ACRE program to a county-level program, increase the coverage to 100% of planted acres, and do away with any program feature that requires farm-level yield reporting. In addition, instead of using the full season-average price in ACRE, the average price over the first five months of the marketing year would allow payments to be made as soon as NASS releases county yields, which usually occurs in late winter and early spring. The many advantages to these changes include that it could be easily administered by FSA, it would provide a large degree of protection against farm-level revenue declines, and it would avoid the kind of services that the private sector is better at providing.

To get an idea of what a county ACRE program would cost, payments that would have been made had such a program been in place from 1980 to 2008 were calculated.² Because the ACRE yield is based on yields in the previous five years, and the ACRE price is based on prices in the previous two years, yields from 1975 to 1979 were used to calculate 1980 ACRE yields and 1978 and 1979 prices were used to calculate 1980 ACRE prices. The full NASS season-average price was used as is currently done with ACRE because of the difficulty in compiling monthly prices in the historical period. To account for how yields and prices have varied over time, historical payments were expressed as a percentage of the ACRE guarantee in each year. The average percent payment across all years from 1980 to 2008 payment was then calculated for each crop and county. Figures A1 to A7 (see the appendix) map the results for each county and crop when the ACRE guarantee is set at 90% of the product of the ACRE price and the county ACRE yield. As shown, for corn and soybeans, most of the lowest-risk counties reside in the Corn Belt as one would expect.

To estimate average per acre payments, average percent losses by county were multiplied by what 2009 per acre guarantees would have been for three different coverage levels to estimate what the program would be expected to cost had it been available in 2009. The results are shown in Table 1 by crop. At the 90% coverage level, projected payments range from around \$10 per acre for barley to \$36 per acre for rice. These average payments reflect both the average percent losses shown in the appendix maps as well as the average per acre value of the crop.

Table 2 multiplies the Table 1 per acre projected payments by 2008 planted acres for each crop and county to project the total cost for each crop and for the entire program. As shown, the projected total cost of a 90% program for these crops is \$3.78 billion. Increasing the coverage level to 95% would increase projected annual costs to \$5.4 billion. Decreasing the coverage level to 85% would lower costs to about \$2.5 billion.

² Kuejai Jungjaturapit provided invaluable computational assistance in calculating these payments.

Table 1. Average annual per acre county ACRE payments by crop

	ACRE Coverage Level		
	90%	85%	95%
	-----\$/planted acre-----		
Corn	22.61	16.05	31.10
Soybeans	15.87	10.82	22.48
Wheat	13.63	9.70	18.51
Cotton	23.55	17.17	31.40
Rice	36.01	24.30	50.48
Barley	10.13	6.82	14.49
Grain Sorghum	12.18	8.66	16.59

Table 2. Average annual county ACRE payments per year by crop and total

	ACRE Coverage Level		
	90%	85%	95%
	-----\$ million-----		
Corn	1,620	1,065	2,374
Soybeans	1,079	709	1,573
Wheat	658	475	884
Cotton	201	149	265
Rice	110	74	154
Barley	40	28	55
Grain Sorghum	72	52	97
Total	3,780	2,552	5,401

To put these costs into perspective, the annual cost of the direct payments program is \$5.2 billion. This implies that direct payments could just about pay for a county ACRE program that covered 95% of the product of the county ACRE yield and the ACRE price. This program would have no farm-level loss trigger and no payment limits, both of which would reduce costs. Alternatively, cost savings from the crop insurance program would pay for a substantial portion of the costs of a county ACRE program. Many farmers would find that their farm-level risks would be covered adequately by a county ACRE program, so they would drop out of the crop insurance program. Other farmers would find that they need supplemental insurance, such as crop hail insurance, or supplemental multi-peril insurance. Both of these types of customized insurance are exactly the type of insurance that should be provided by the private sector without government involvement. The amount of cost savings from the crop insurance program would depend on whether the crop insurance companies could be set free from federal control or whether there would still be a need for federal involvement. At a minimum, it would make sense for existing crop insurance policies to be modified to account for

county ACRE payments. Such a move could easily result in costs savings in excess of \$4 billion per year.³

Payment Limits

A redesign of federal commodity supports away from direct payments and crop insurance and toward an easy-to-administer program based on county revenue would make more efficient use of federal tax dollars. But such a move would require some decisions about payment limits. Currently, crop insurance subsidies and payments are not subject to payment limits or limits on adjusted gross income (AGI) whereas FSA-administered programs are subject to these limits. Thus, moving a significant portion of agricultural risk that is currently borne by the federal government from RMA-administered programs to an FSA-administered program with no change in payment limits would not be favored by high-income farmers or farmers with a lot of land.

One alternative is to simply do away with payment limits and recognize that a large share of the nation's food supply is being produced by a decreasing number of large, efficient producers, so if Congress's goal is to support agriculture, then it makes sense to support those individuals who are making the investments and bearing the risk of supplying our food.

Another alternative is to keep payment and AGI limits in place and apply them consistently across all federal farm programs, including crop insurance. After all, the crop insurance industry would not exist without federal support, and the magnitude of taxpayer subsidies flowing through the crop insurance program to large farmers is often much greater than in other programs. Why does it make sense to apply payment limits to direct payments and ACRE payments when there are no limits to subsidies from crop insurance?

Concluding Remarks

Calls for reform of farm commodity programs have a history as long as farm programs themselves. Today's combination of growing and unsustainable federal debt and widespread dissatisfaction with federal control of private business increases the importance of making sure that federal farm programs represent efficient use of taxpayer dollars to support agriculture. Current programs fail the efficiency test. The crop insurance program supports the crop insurance industry as much as or more than it supports production agriculture. And it is difficult to figure out why tax dollars should flow to farmers during highly profitable years through the direct payment program. The new programs passed in the 2008 farm bill, ACRE and SURE, show that Congress recognizes the need for a new approach. Adoption of both programs revealed

³ Corn, soybeans, wheat, cotton, grain sorghum, rice, barley, and grain sorghum accounted for 44% of crop insurance premiums in 2009. If a county ACRE program covered only 50% of the risk from these crops, then savings from crop insurance would exceed \$3.5 billion. In most counties, the proportion of risk covered by a county ACRE program would exceed 50%, which would mean larger annual savings.

dissatisfaction with crop insurance despite the billions in tax dollars being spent on the program.

The next farm bill represents an opportunity to push reform further and resolve issues more completely. If the ACRE program were moved to the county level, then there would be less need for SURE and less need for federal subsidies for crop insurance because taxpayers would bear a greater share of agricultural risk directly rather than indirectly. Such a move could be completely funded by savings from the crop insurance program or by reductions in direct payments. Either way, taxpayers and farmers would be better served.

Bruce A. Babcock is a professor of economics at Iowa State University and director of the Center for Agricultural and Rural Development.

This policy brief was taken from Professor Babcock's testimony at a hearing on May 13, 2010, before the U.S. House Committee on Agriculture to review U.S. agricultural policy in advance of the 2012 farm bill.

APPENDIX

**Projected Average County ACRE Payments Expressed
as a Percentage of the Guarantee**

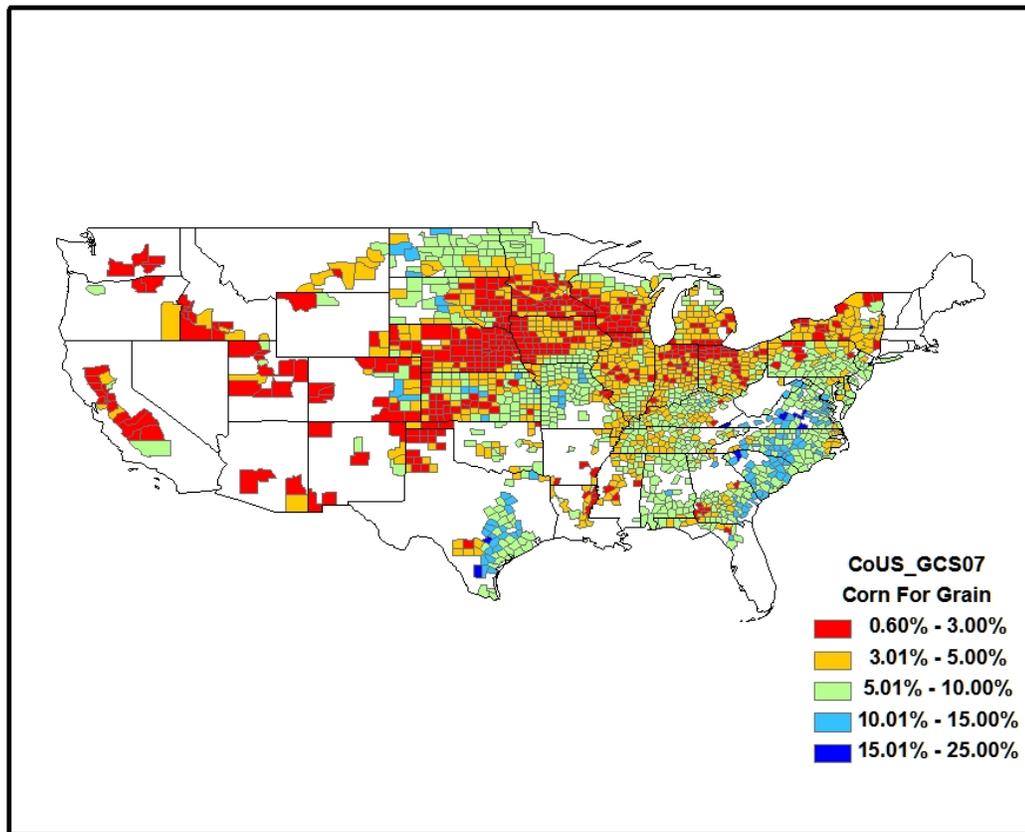


Figure A1. Projected corn payments for a 90% county ACRE guarantee

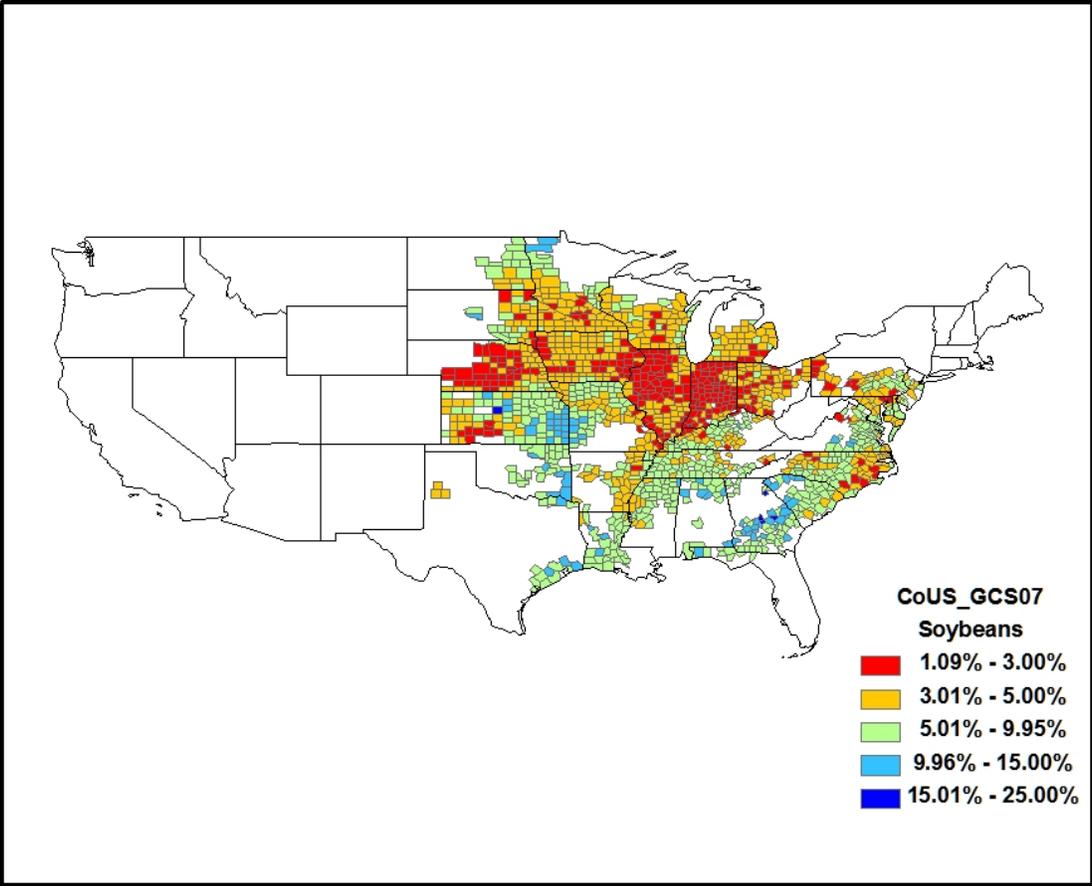


Figure A2. Projected soybean payments for a 90% county ACRE guarantee

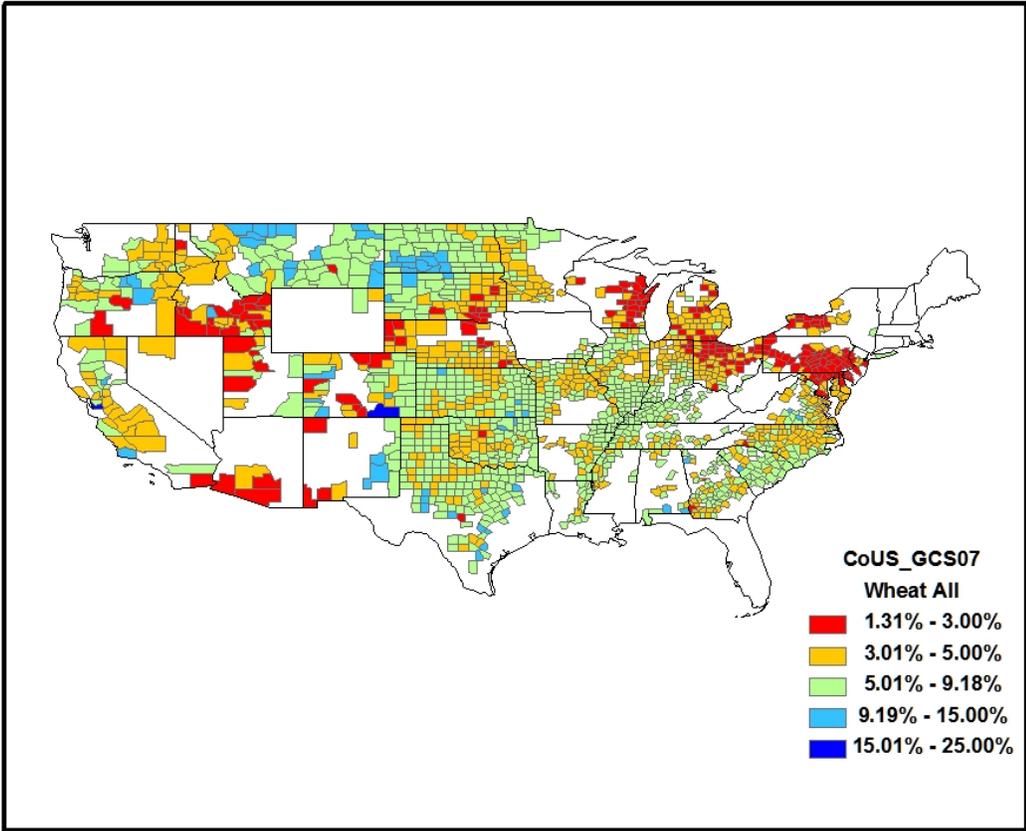


Figure A3. Projected wheat payments for a 90% county ACRE guarantee

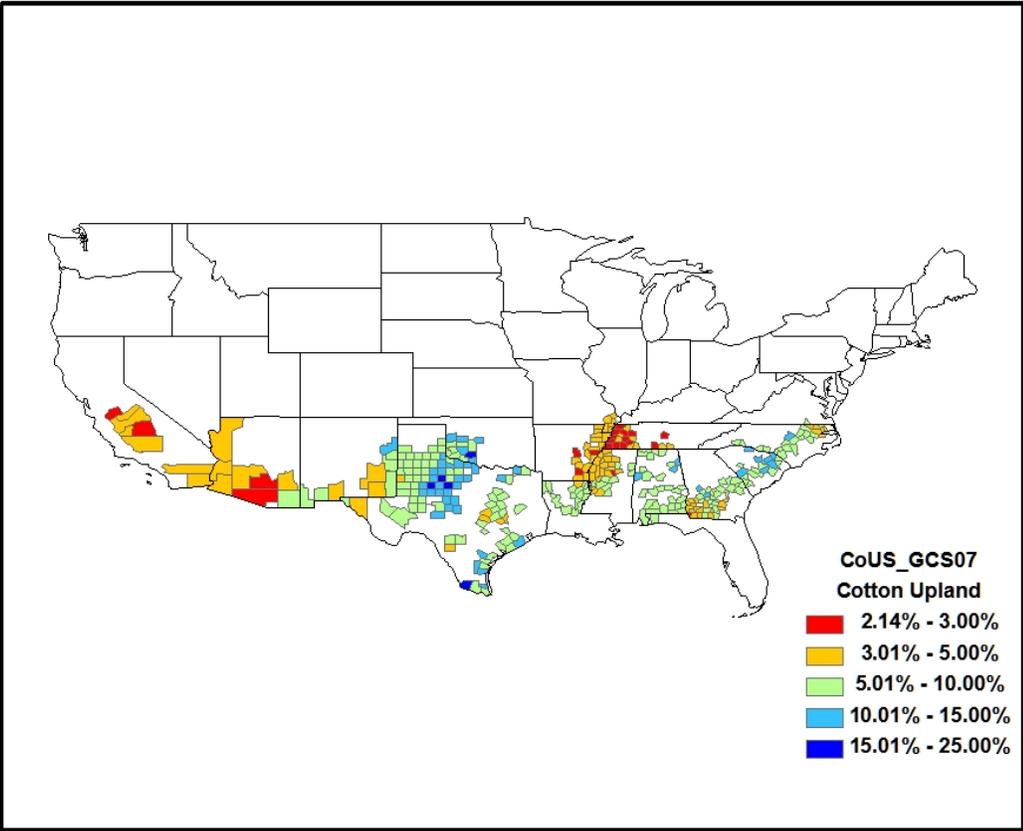


Figure A4. Projected cotton payments for a 90% county ACRE guarantee

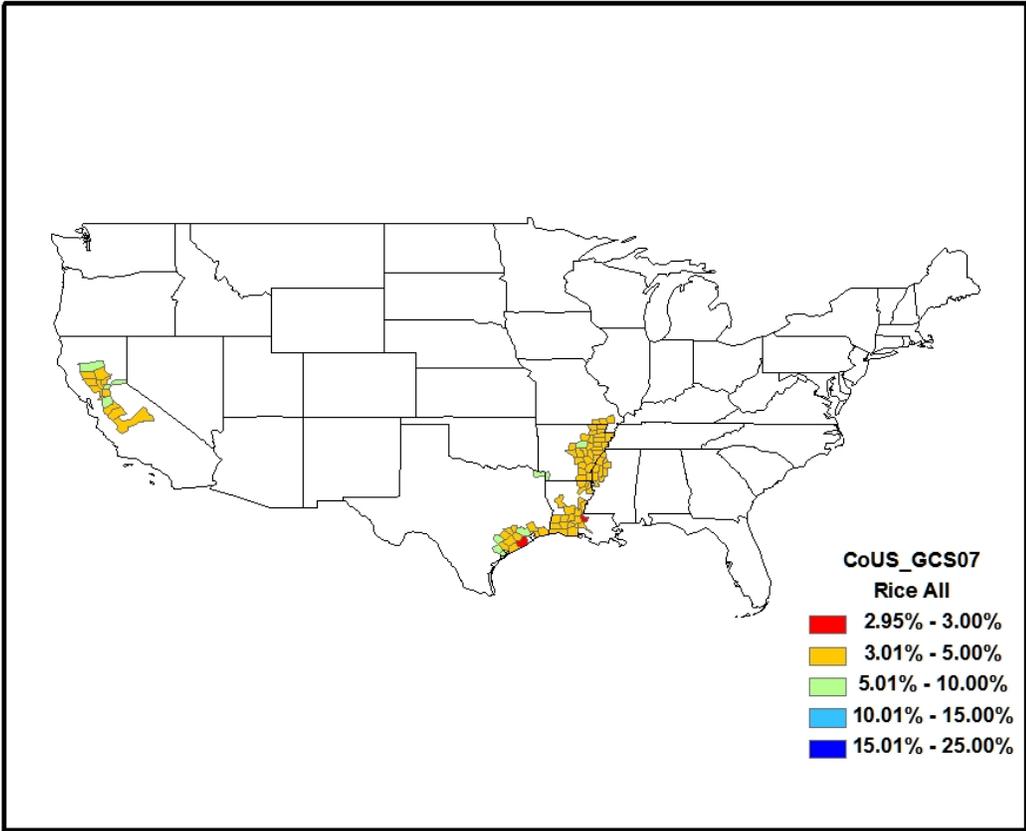


Figure A5. Projected rice payments for a 90% county ACRE guarantee

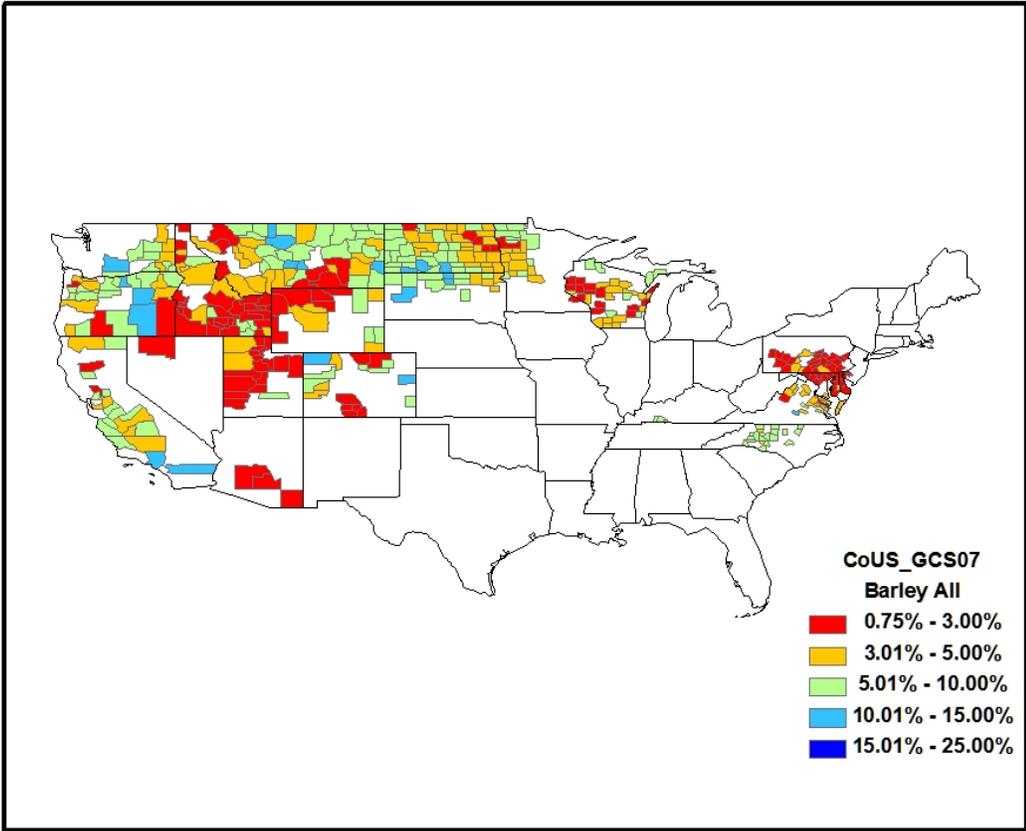


Figure A6. Projected barley payments for a 90% county ACRE guarantee

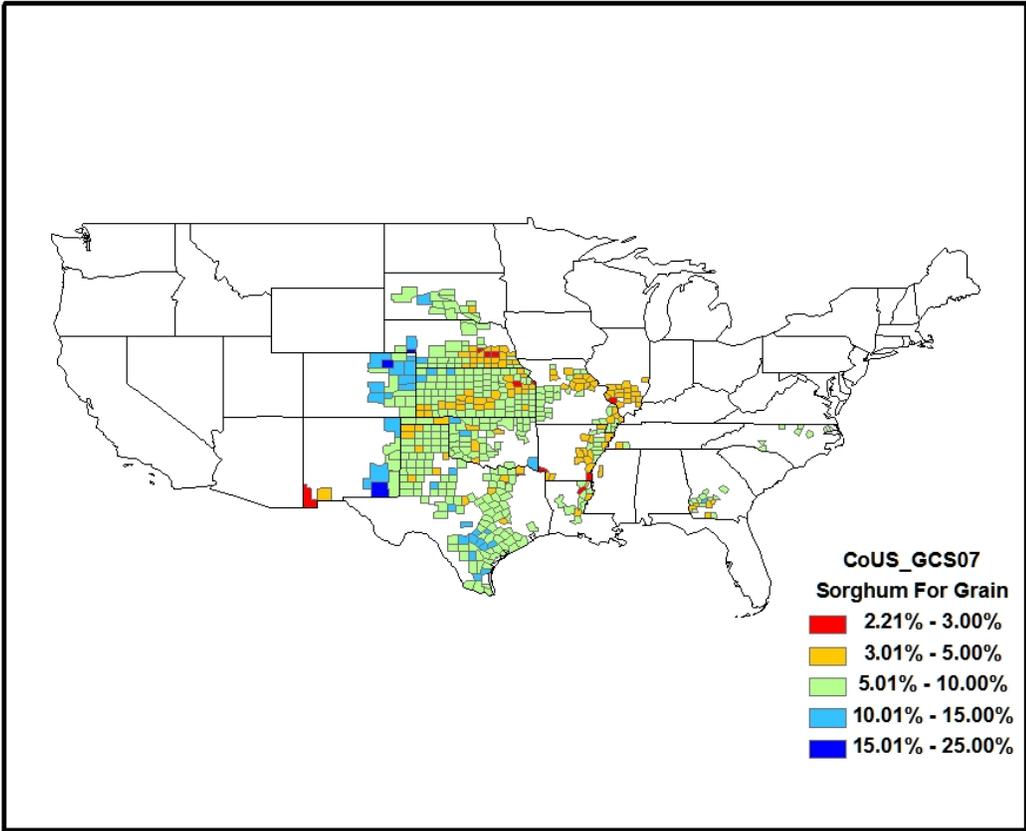


Figure A7. Projected grain sorghum payments for a 90% county ACRE guarantee