

MISSISSIPPI STATE
UNIVERSITY™

Cotton Risk Management

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We all know risk when we see it

- Risk is a defining characteristic of agriculture
 - Price risk
 - Yield risk
 - Large capital investments
 - Risk is a prime motivation for farm policy
 - Loan programs
 - Counter-cyclical payments
 - Crop Insurance
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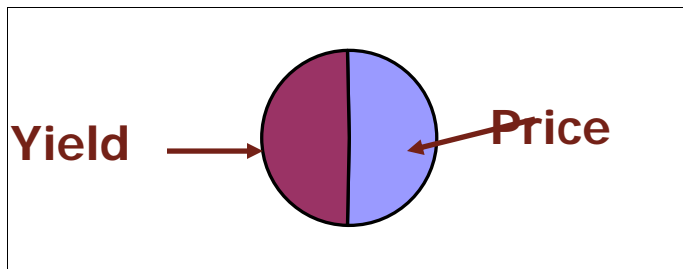
Risk management tools and strategies

- Savings/borrowing
 - Off-farm income/investments
 - Diversification
 - Everyday good management
 - Futures and Options
 - **Government programs**
 - Loan programs
 - Counter-cyclical payments
 - Crop Insurance
 - **SURE**
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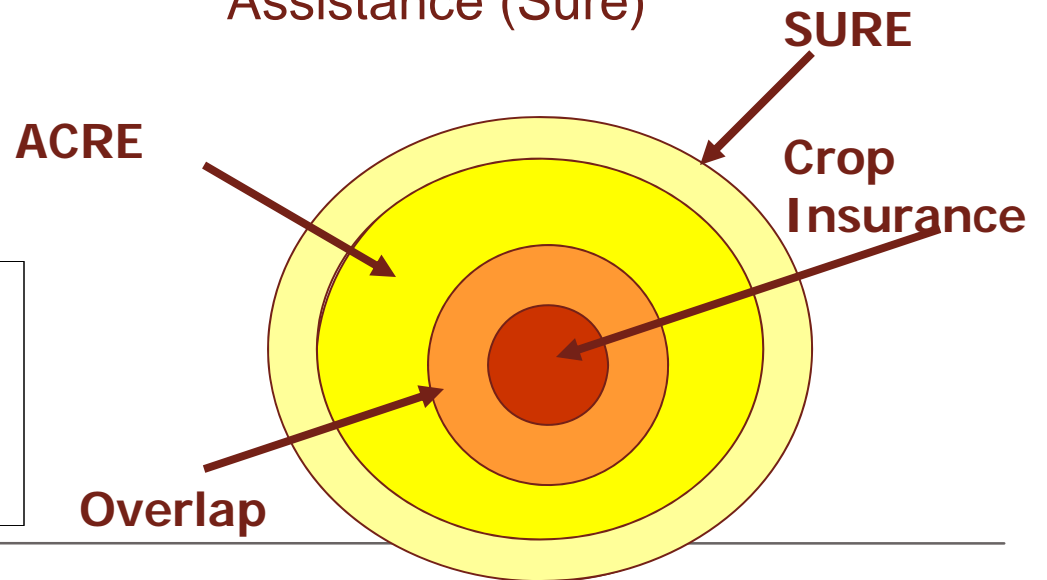
A world of ever more useful and sophisticated risk management tools comes at a inevitable cost – new and innovative ways to make costly risk management mistakes

The Evolution of Government Risk Protection Programs

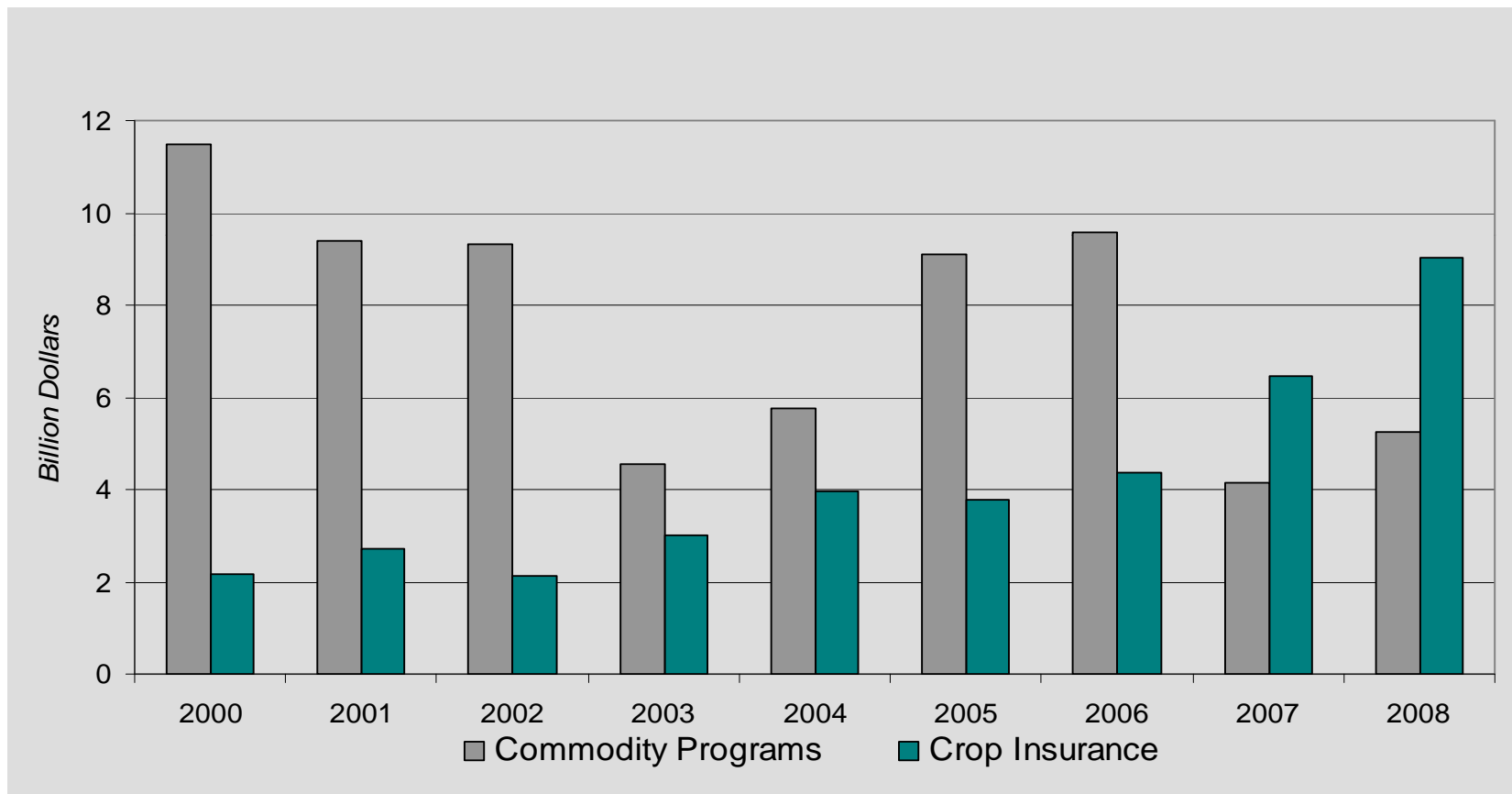
- Farm Policy 1995
 - Commodity policy addressed price risk (systemic)
 - Crop insurance and disaster programs dealt with yield risk (idiosyncratic)



- Farm Policy 2008
 - More revenue insurance than yield insurance sold
 - Average Crop Revenue Election (ACRE)
 - Supplemental Revenue Assistance (Sure)



Direct Payments, Crop Insurance, and Pocket Change



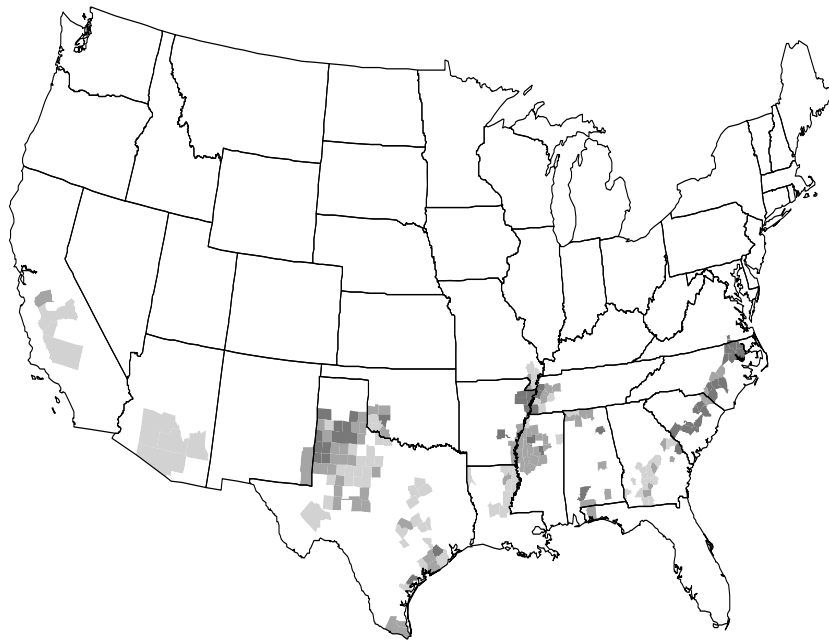
Source: Dismukes and Coble

Corn and Soybeans Yields Less Variable than Cotton

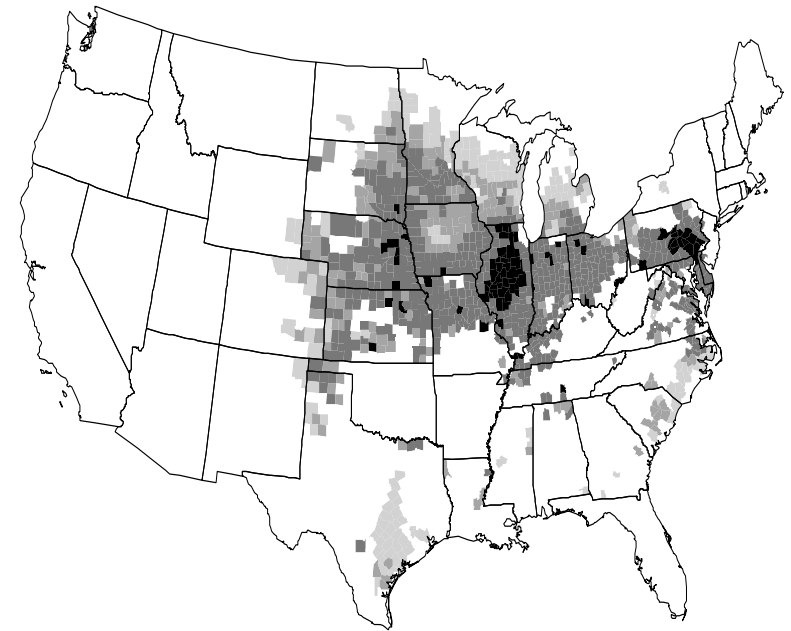
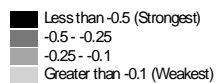
Level	Crop			
	Corn	Soybeans	Wheat	Cotton
	<i>Coefficient of Variation</i>			
National	0.084	0.066	0.077	0.104
State	0.117	0.110	0.182	0.156
County	0.146	0.132	0.255	0.255
Farm	0.379	0.388	0.542	0.592

Source: Dismukes and Coble

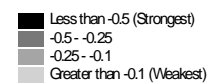
Cotton and Corn Price-Yield Correlation



Correlation Coefficient



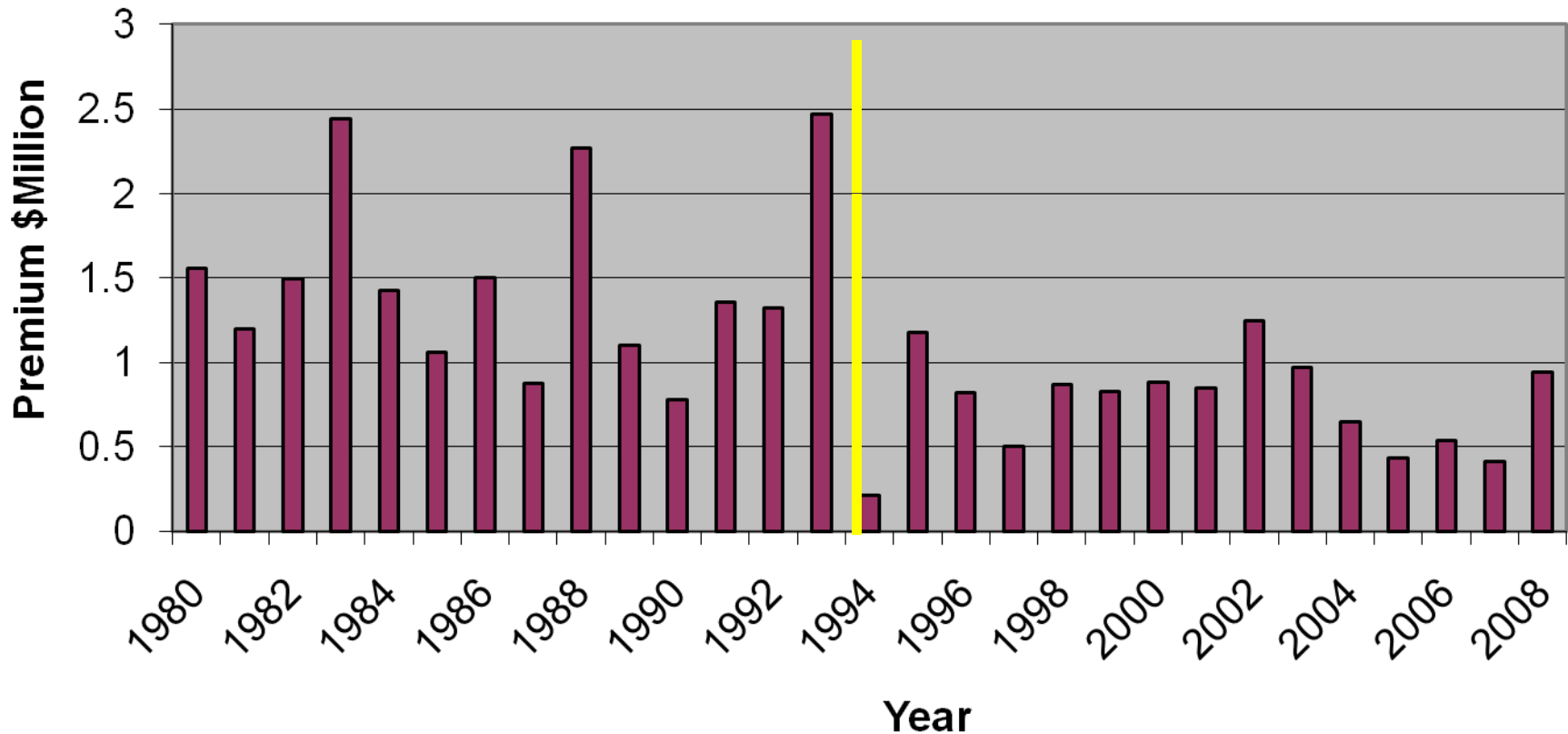
Correlation Coefficient



A Quick View of Cotton, Soybean, and Corn Crop Insurance Programs

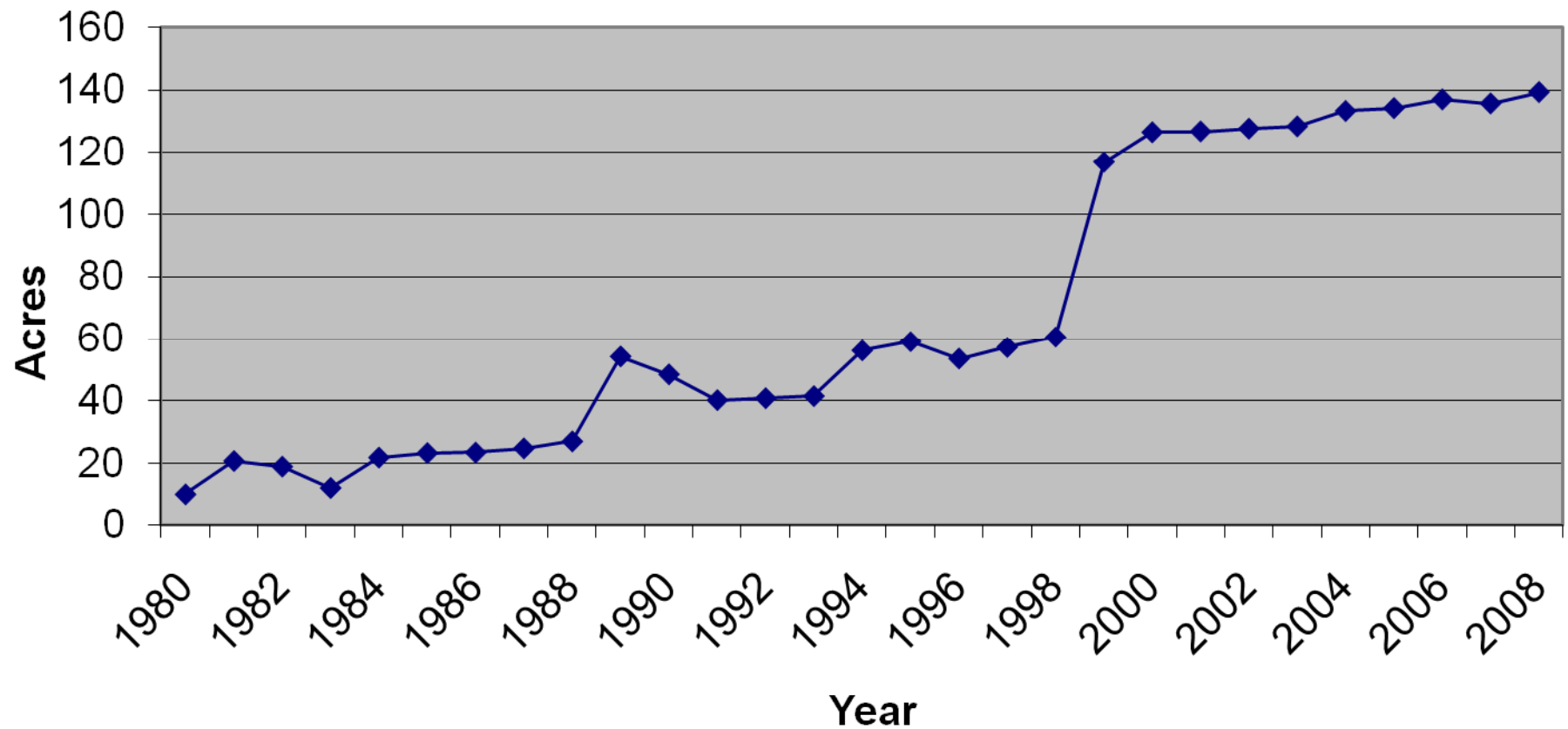
Weather, Rates or Participation?

Loss Ratio for Cotton, Corn and Soybeans

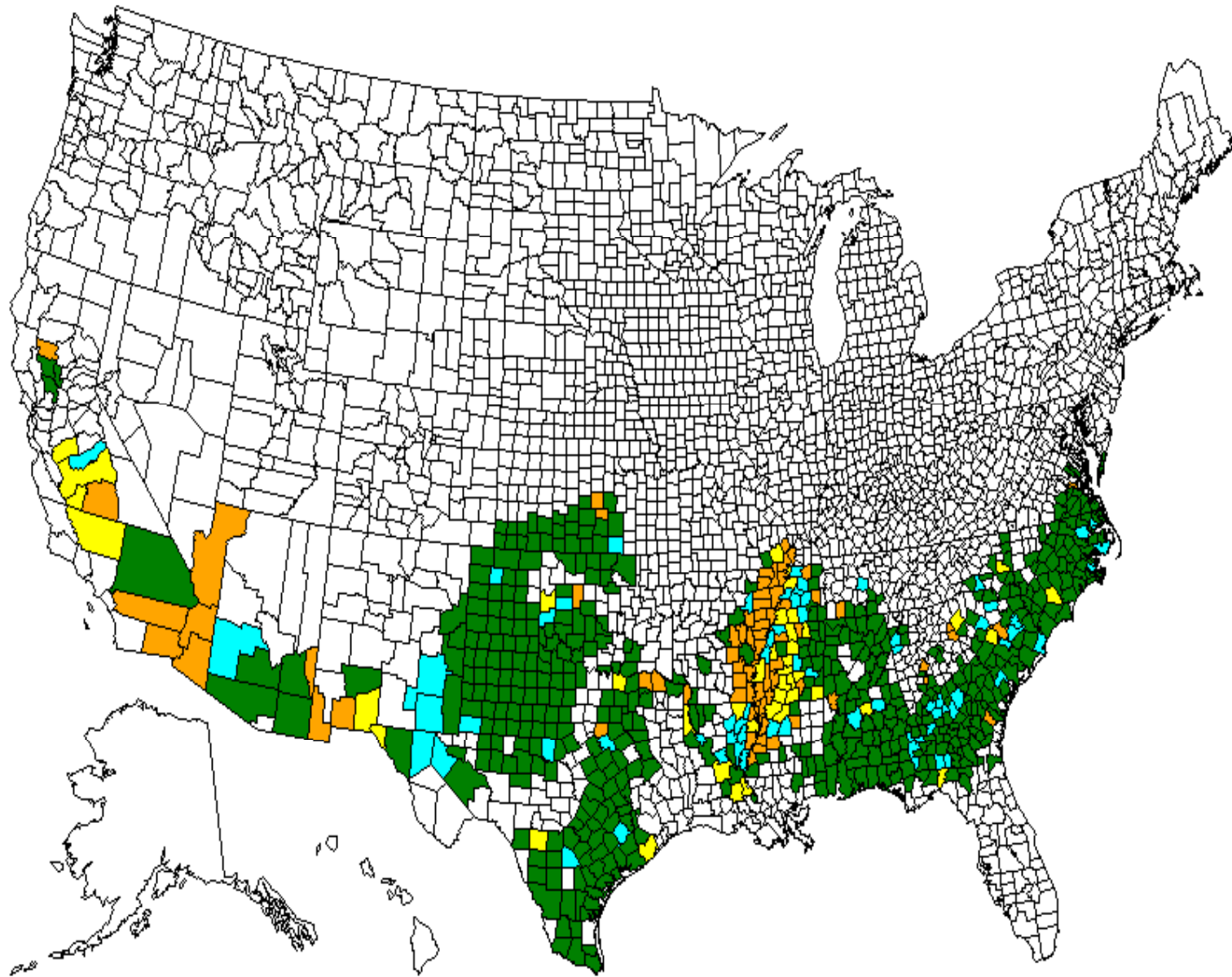


Trends in Acreage

Net Insured Acres for Cotton, Corn and Soybeans

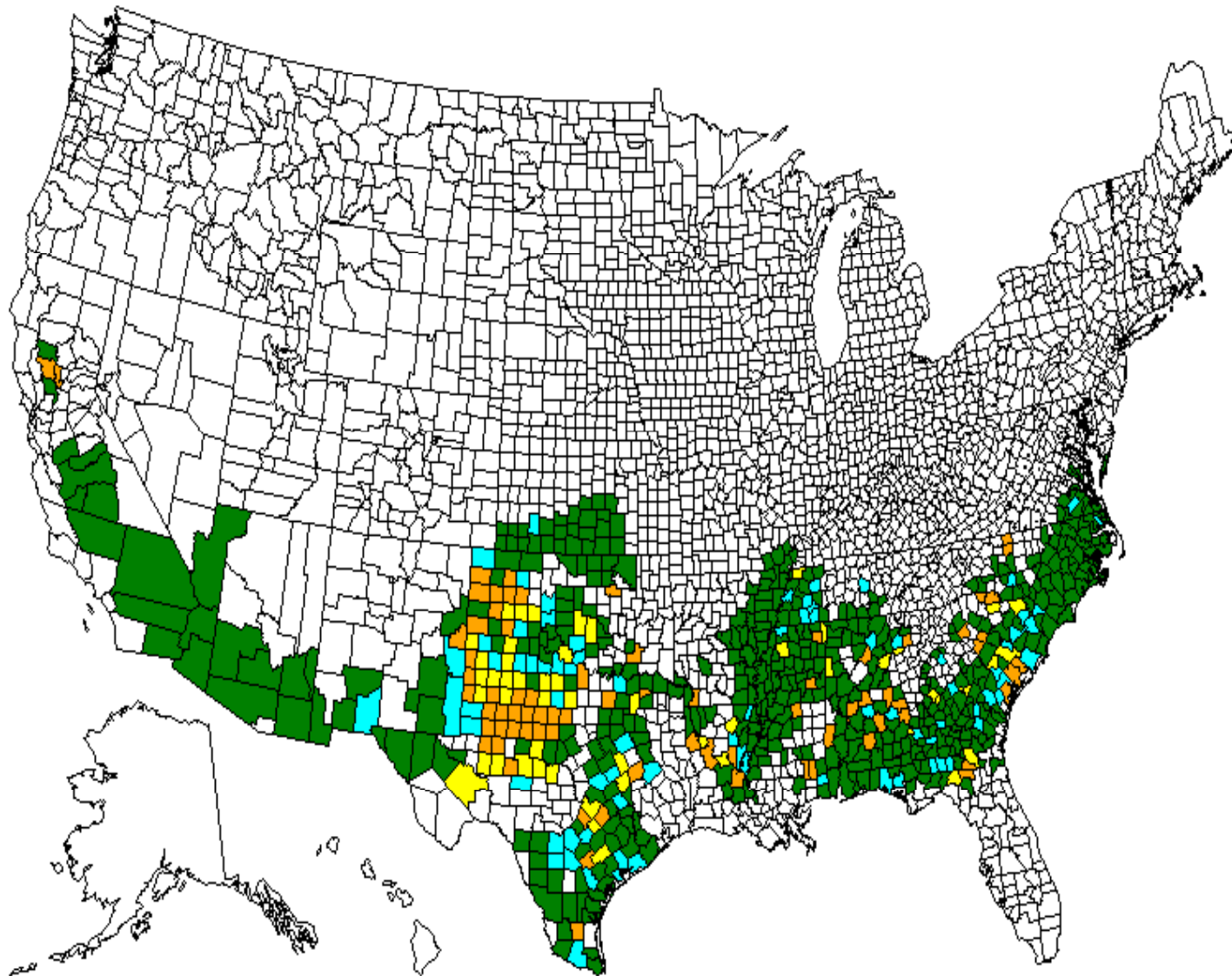


2008 Cotton Percent of Acres in Catastrophic Coverage



Cat_Percentage 0 to 25% 25 to 50% 50 to 75% 75 to 100%

2008 Cotton Percent of Acres in Buy-up Coverage at 65% or Below



Limited_Percentage

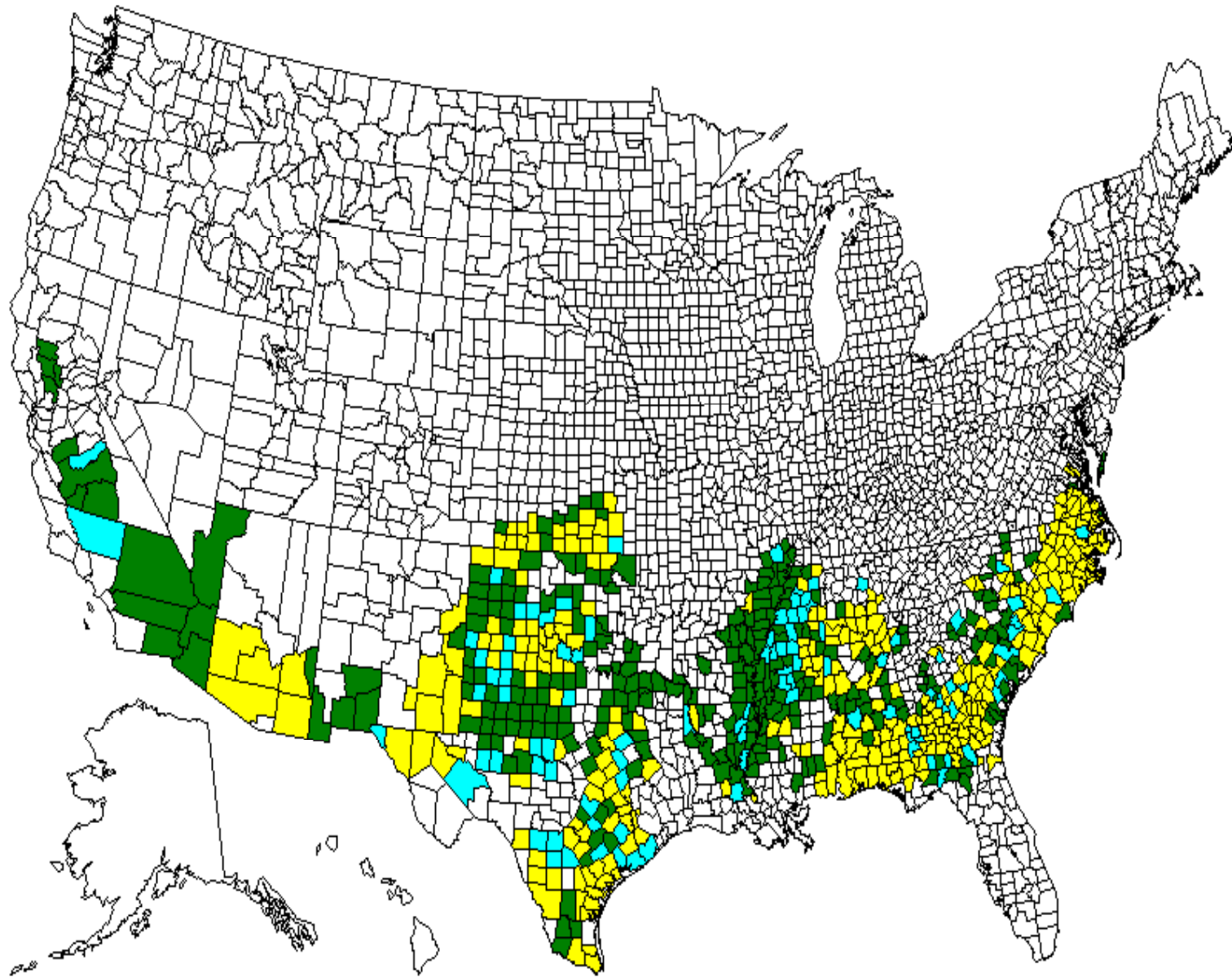
0 to 25%

25 to 50%

50 to 75%

75 to 100%

2008 Cotton Percent of Acres in Coverage Above 65%



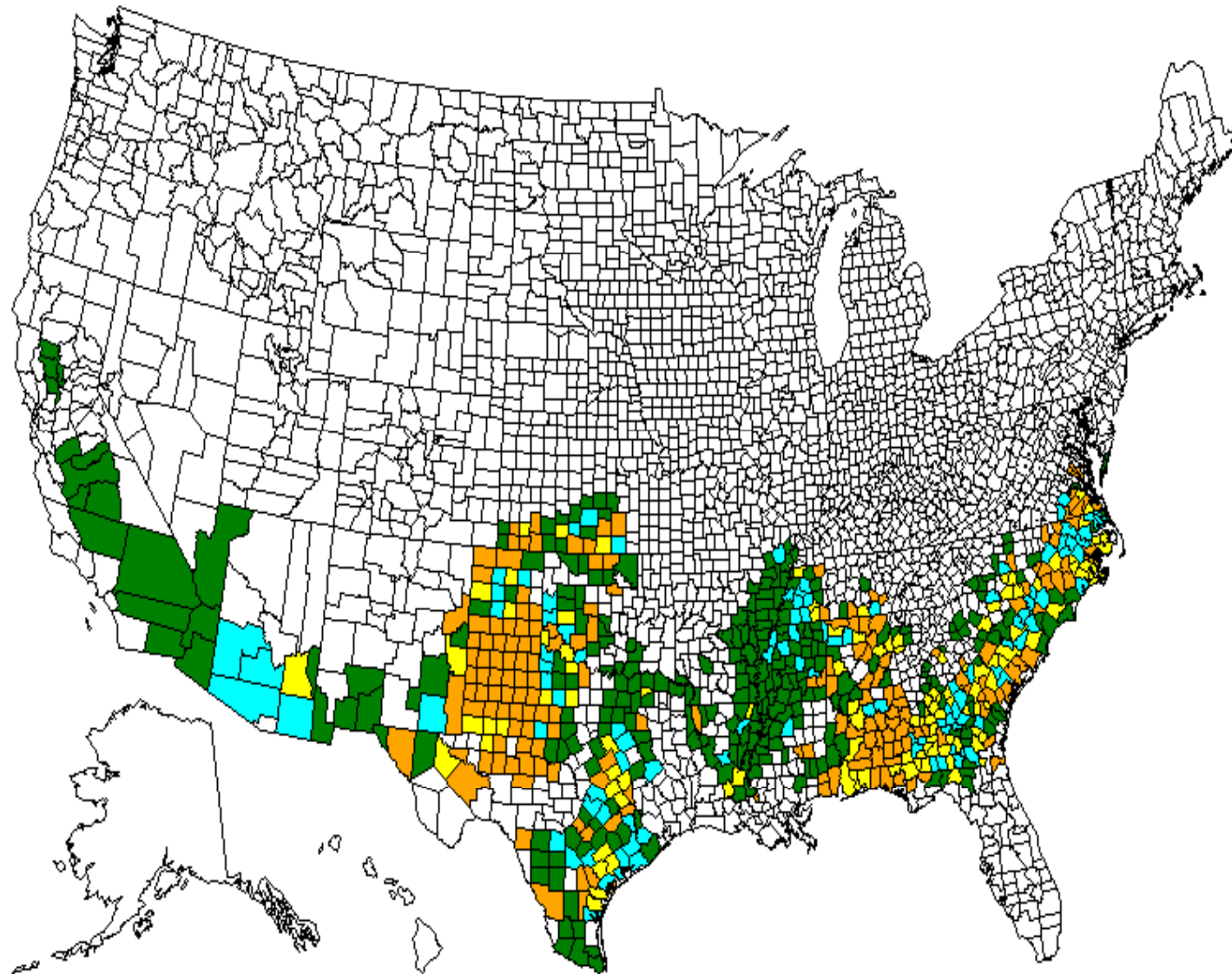
High_Cover_Percentage

0 to 25%

25 to 50%

50 to 75%

2008 Cotton Percent of Acres in Revenue Insurance



Revenue_Percentage

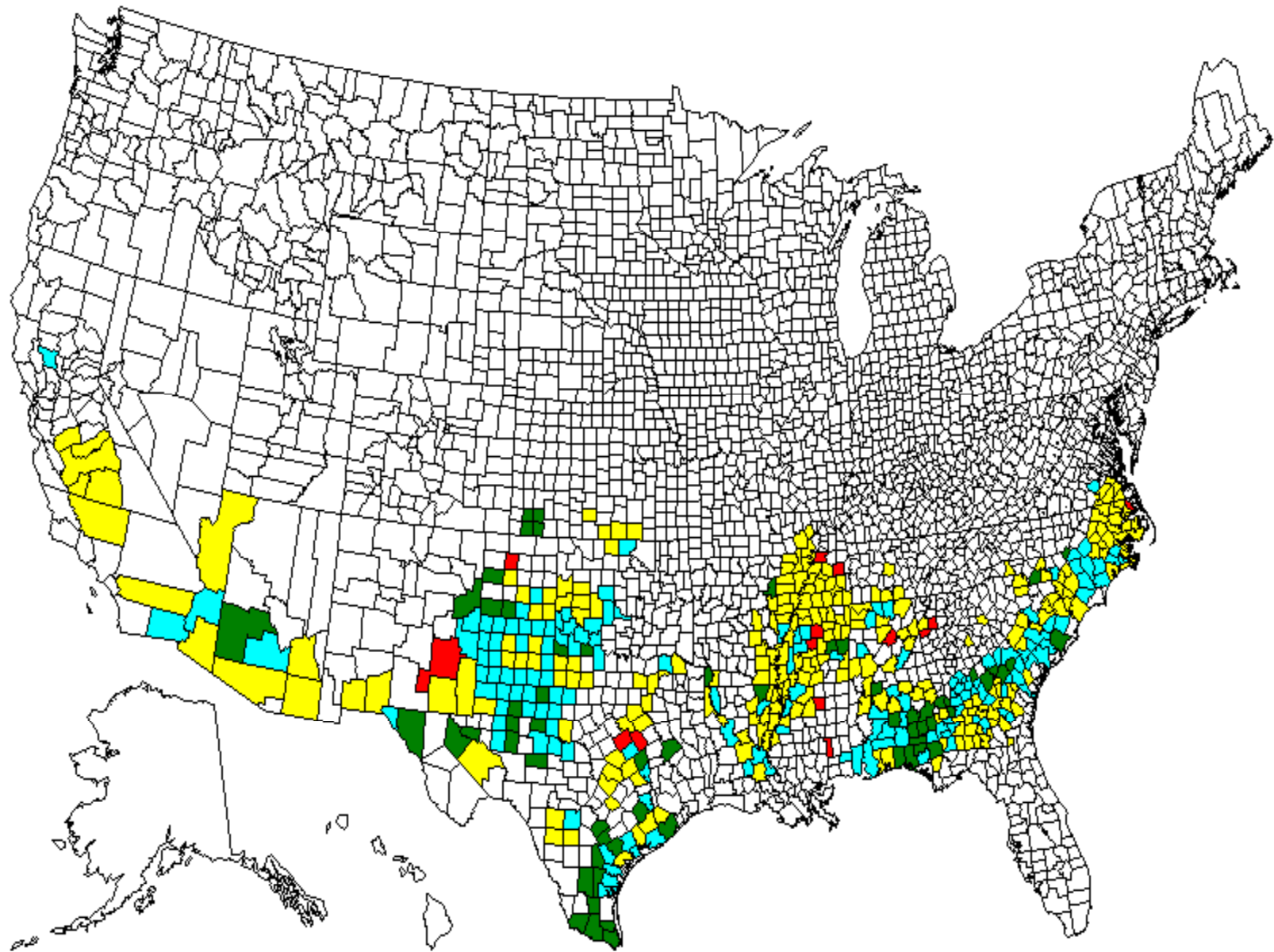
0 to 25%

25 to 50%

50 to 75%

75 to 100%

1990—2008 Net Return to Insurance/Acre



Net_Return ■ < S0

■ S0 to S18

■ S18 to S36

■ > S36

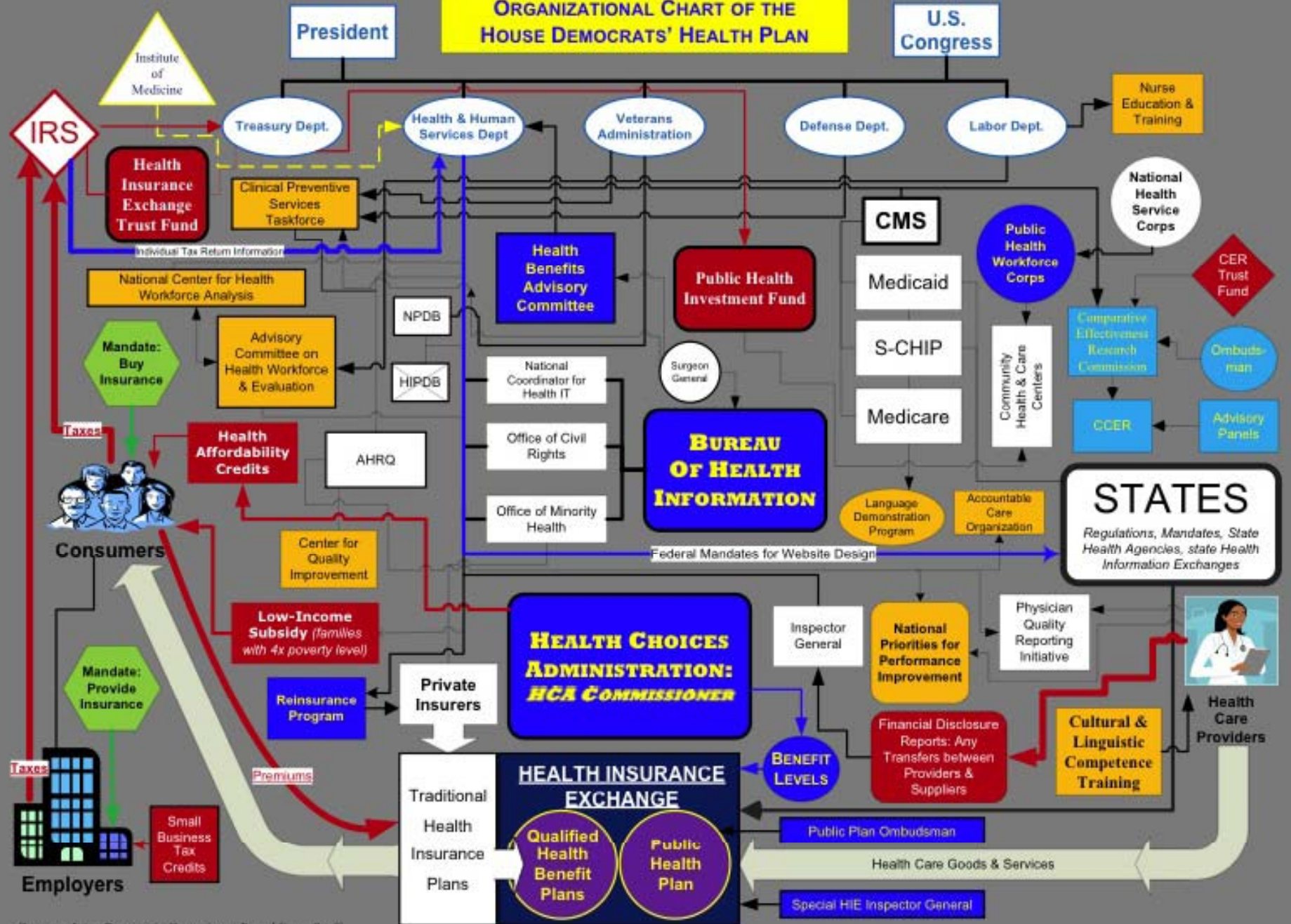
RMA Rating System

- **Yield rates are driven by loss experience for cotton in your county**
 - Spread worst loss years across the state
 - Some smoothing of rates across adjoining counties
 - No relationship to other crops or other states
 - **Revenue rates are tied to yield rates and adds price risk derived from futures price volatility**
 - **Check out the new Enterprise unit subsidies**
 - 65% coverage Basic or Optional unit subsidy = 59%
 - 65% coverage Enterprise unit subsidy = 80%
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SURE and Disaster Programs

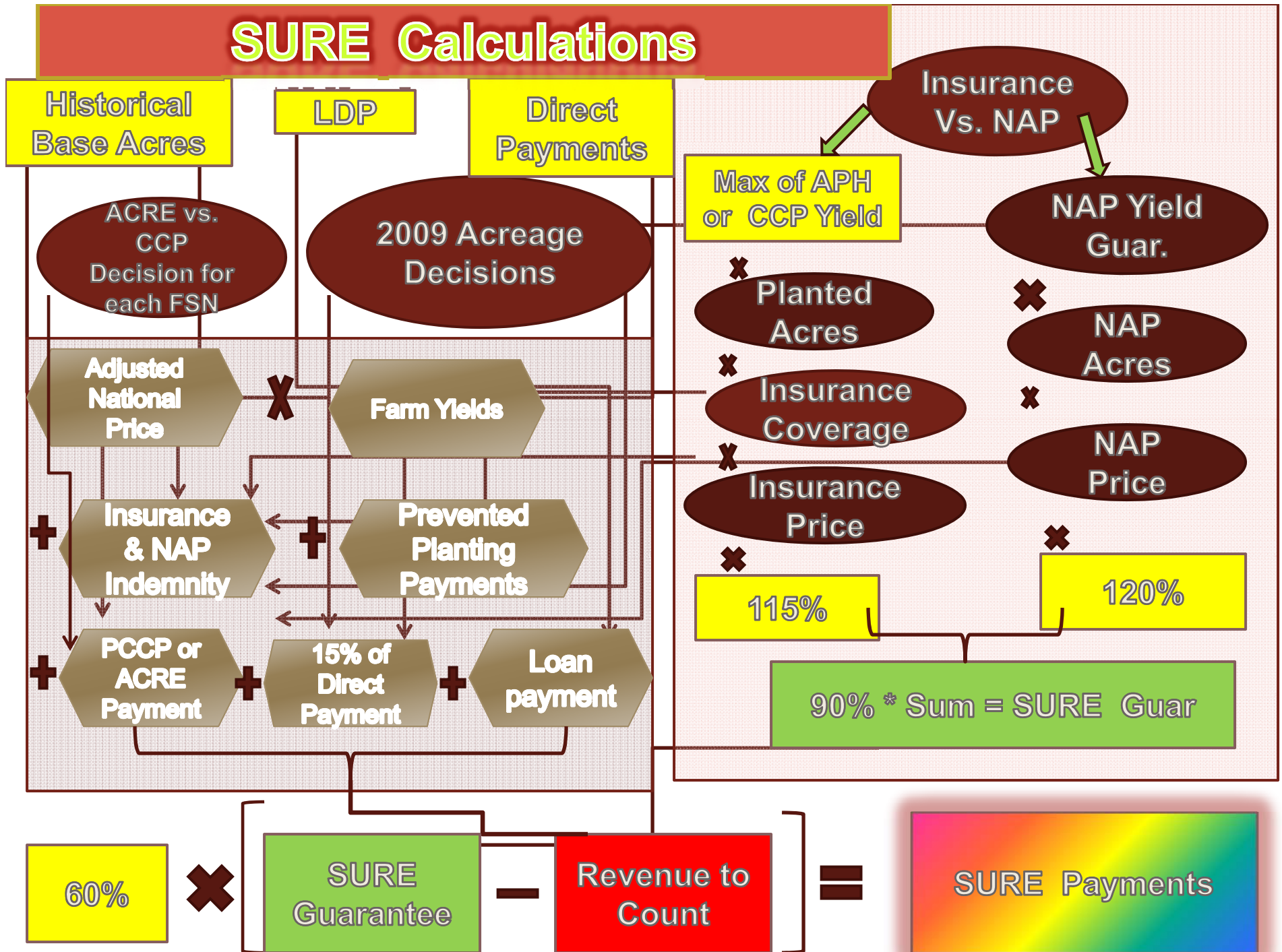
- The Farm Bill created a standing disaster program- argued to eliminate ad hoc disaster
 - It is not crop-specific
 - It wraps around crop insurance, LDP, CCP, and direct payments
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ORGANIZATIONAL CHART OF THE HOUSE DEMOCRATS' HEALTH PLAN



Source: Joint Economic Committee, Republican Staff
 Congressman Kevin Brady, Ranking House Republican Member

SURE Calculations

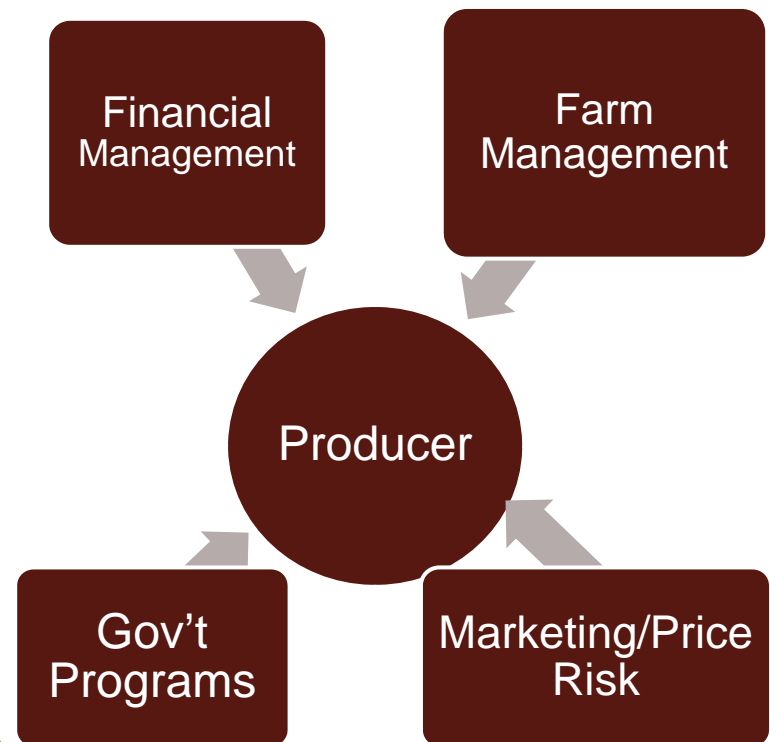


Our Analysis

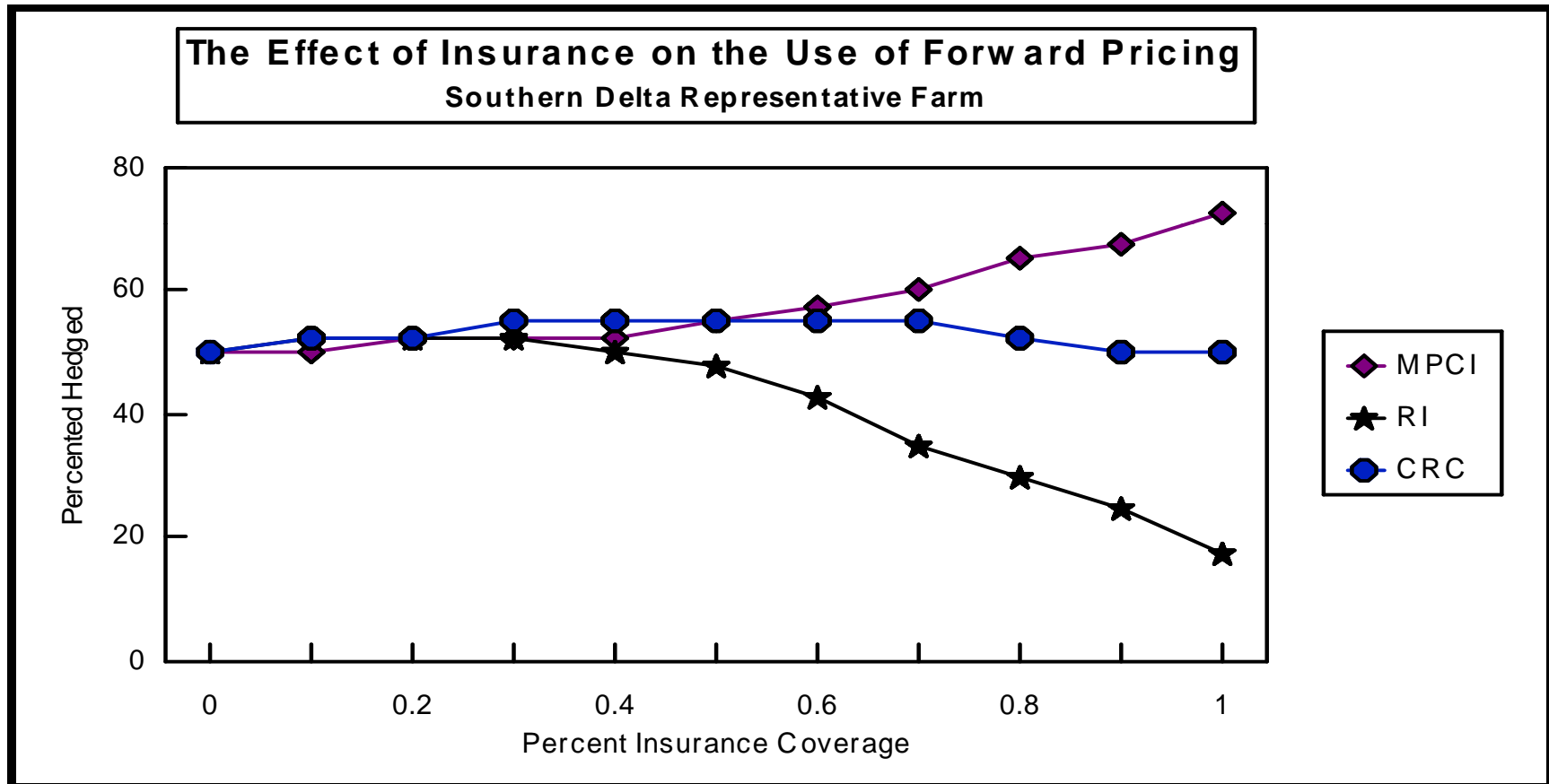
- SURE is complicated
 - It will be slow to pay out due to the time lags of the programs that must be calculated first.
 - It will not pay much to diversified farms
 - It will not be enough inducement to change crop insurance coverage
 - Prediction: it will not stop ad hoc disaster aid
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Putting the Pieces Together

- Family income risk management
- How much risk can you tolerate?
- Protecting against loss versus speculating for gains
- Risk Protection Duplication
 - Crop Revenue Insurance + LDP + Counter-cyclical Payment + SURE + Hedging or options



Government Programs Can Complement or Compete with Private Risk Management



Source: Coble, Heifner, and Zuniga

Final Thoughts

- Risk management should be considered at the farm/family level
 - Risk management tools can also be risk management dangers
 - Crop insurance experience and participation differ across the Cottonbelt
 - Interaction of insurance, commodity programs, pricing tools, and financial management
 - Thank you
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