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Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign

# Crop Insurance Premium Comparisons, Illinois 2014

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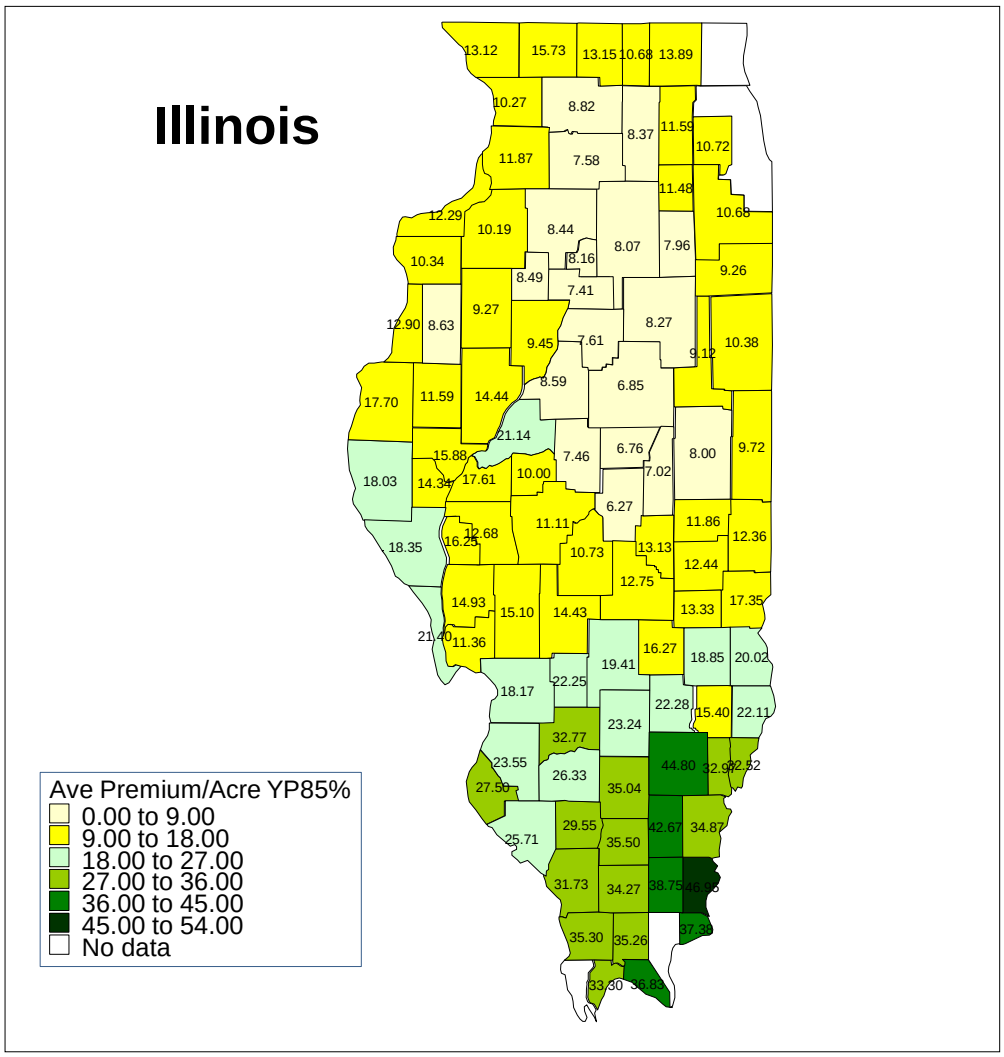
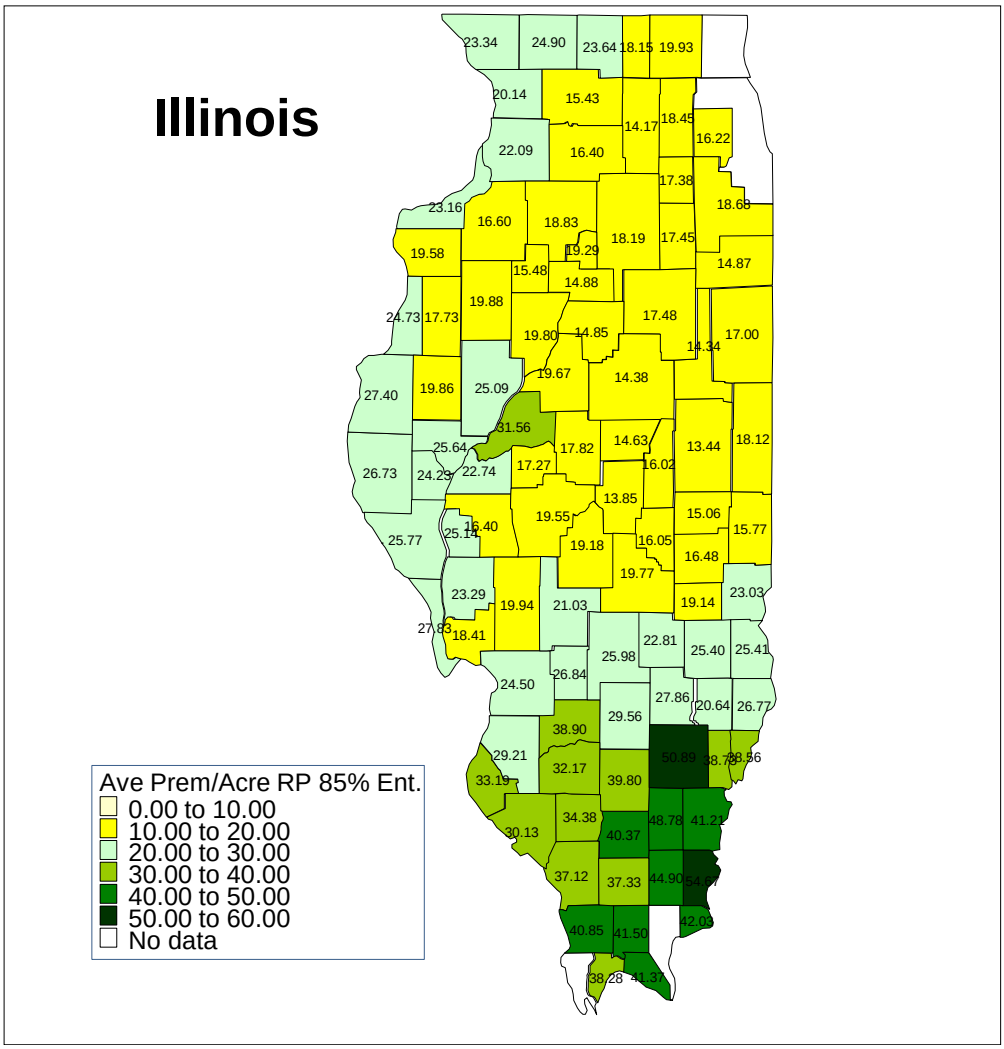
One of the primary factors influencing choice of crop insurance product, coverage and unit decision is the actual cost per acre of the competing products. There are important implications for cash flow to pay premiums, and later in the actuarial features (degree of downside protection, correlation with revenue shortfall) and timing of payments if made (primarily due to settlement process for area products). The purpose of this post is to simply provide visual information about relative premiums per acre for a few of the more common products at higher coverage levels to help assess the tradeoffs among Yield Protection (YP), Revenue Protection (RP) and Area Risk Protection (ARP). In the cases shown, all are at the highest available election level and calculated at the average yield representative of corn production in 2014. More specific information for each county in Illinois, as well as each county in Indiana, Iowa, Maryland, Minnesota, Missouri, North Dakota, South Dakota, and Wisconsin for both corn and soybeans is available at the *farmdoc* website.

The first figure below shows the pattern and level of premiums for YP at an 85% coverage election. The price per acre ranges from a low of $6.27 in Macon County to a high of $46.95 in Gallatin County, or roughly a $40 range, and closely follows the pattern of yield risk as proxied by the standard deviation of yields.



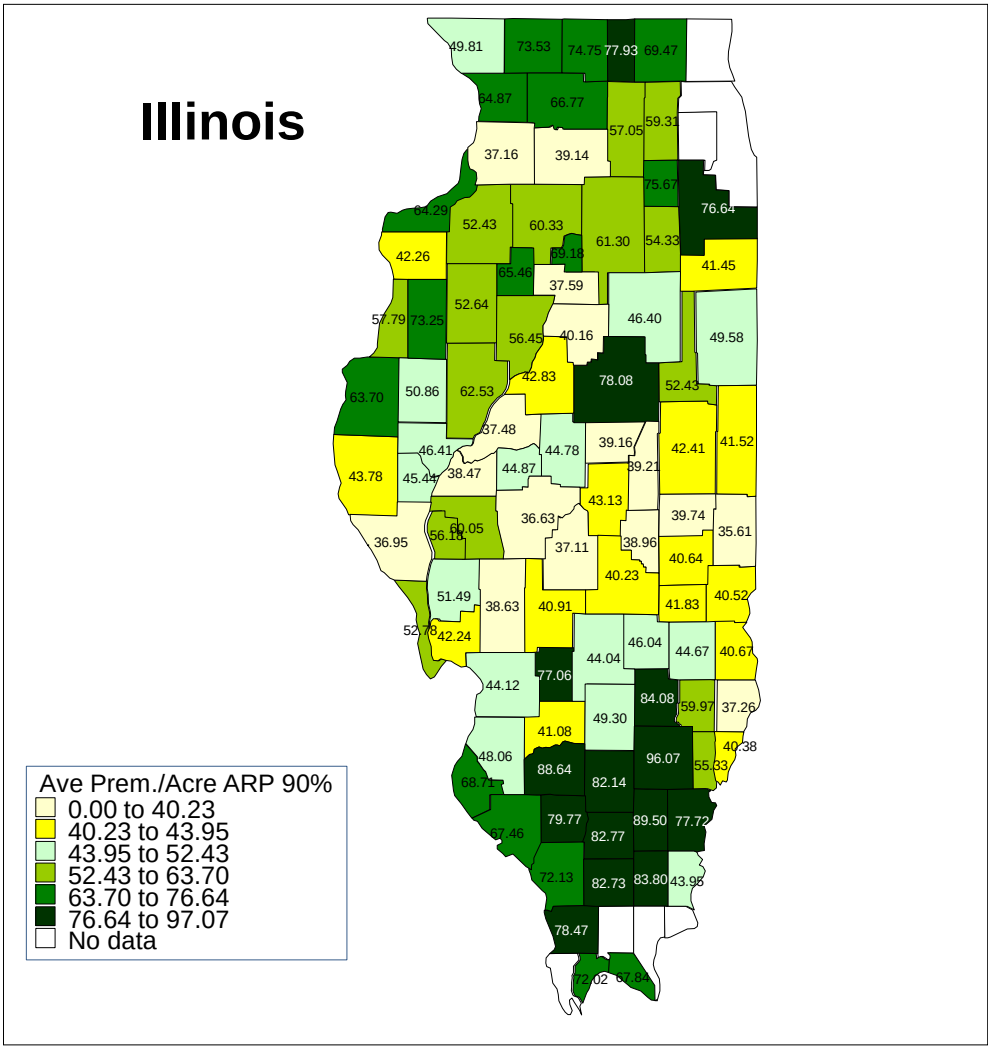

The following figure shows the average premiums per acre for RP 85%, and follows fairly similar patterns with costs per acre that range from $13.44 in Champaign County to $54.67 -- the high again in Gallatin County. The differences are fairly stable around $8-9 per acre more to move from yield only to revenue protection. As with the YP product, the RP product costs closely follow the general production risk patterns around the state. A producer with relatively lower yield risk would likely favor RP all else equal given the intent for similar actuarial performance through time for each product.




The third graph below shows the costs per acre for the ARP product that provide insurance against low revenues based on the county average. ARP premiums are shown for a 90% coverage level and the highest protection factor of 1.2. Interestingly, this product can has costs per acre that differ dramatically over very short distances, and over farms that might be considered similar in close proximity, but in different counties. It is important to remember that when evaluating the potential benefits of area policies, that they tend to work better when a farm has yield patterns that are closely correlated to the yield patterns in the county. It does not matter if the farm's yields are consistently below or above the county average, only if differences from the trend yields are similar between the farm and the county. Because the potential payments can be fairly sizeable, the premium costs can also be high. The figure below shows the premiums for the highest available coverage and protection factor resulting in premiums that range in cost from $35.61 per acre in Edgar County to roughly $96 per acre in Wayne County.

Notably, ARP may be relatively less attractive in McLean County and other regions in the central and upper region of the state with relatively higher ARP costs. And, there are numerous instances where the cost difference between adjacent counties is in excess of $30/acre, providing fairly some indication of differences in implied riskiness of the county using RMAs ratings methods.

For further details and estimates of related payment information, or to examine soybeans or basic unit analogs, visit the crop insurance section of the *farmdoc* website.

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