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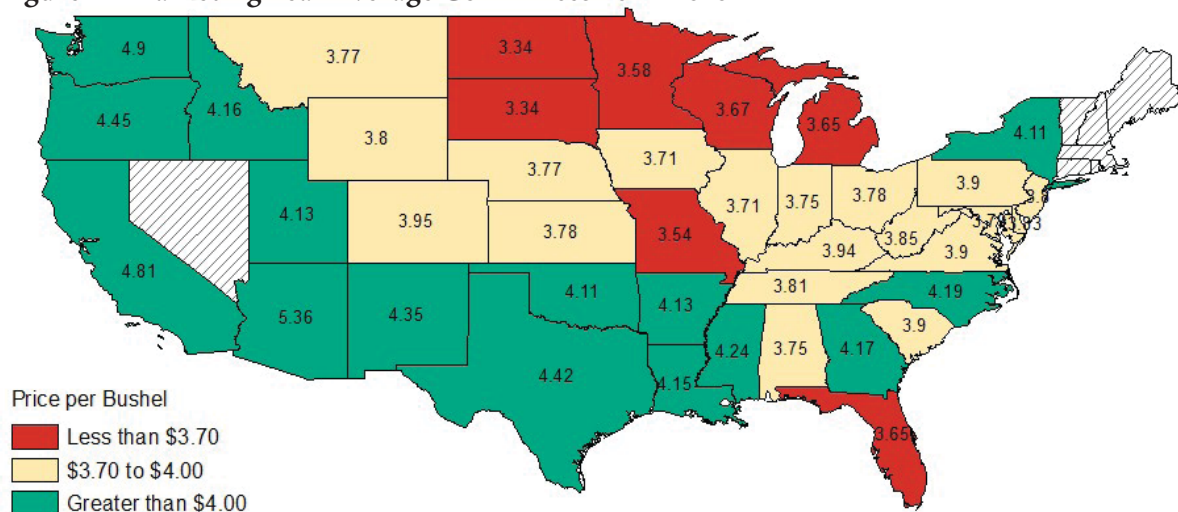
Using State Data to Calculate Feed Cost for the Margin Protection Program

BACKGROUND

The Dairy Margin Protection Program (MPP) uses monthly national average milk, corn, and alfalfa hay prices, and the Decatur, Illinois soybean meal price to calculate the actual dairy production margin used in MPP. Therefore, the feed cost trigger does not reflect regional price variations in feed costs.

Livestock feed prices vary considerably due to local supply and demand conditions. For example, the price received for corn in 2015 averaged \$3.70 per bushel and ranged from a low of \$3.34 per bushel in the Upper Midwest to a high of \$5.36 per bushel in Arizona. Some have suggested the next Farm Bill require the use of data from each state to calculate average feed costs. However, regulated milk prices differ across the U.S. based on the returns from State or Federal Milk Marketing Order revenue sharing pools. For example, during the 2014 marketing year, the U.S. all-milk price averaged \$25.00 per hundredweight but ranged from a low of \$21.90 per hundredweight to \$35.40 per hundredweight.

Figure 1 - Marketing Year Average Corn Prices 2014-2015



Numerous academic studies have found that farm- and state-level margins are correlated at more than 95 percent with the national MPP margin. This suggests that the current MPP margin is an appropriate indicator of state-level margin risk. However, the difference in feed costs across the country has been one of the primary critiques of the program. These disparities fluctuate year to year and are exacerbated by short supply or surplus market conditions. Examples include the impact of the drought in the Southern Plains on hay in 2011 and surplus milk production in the Northeast during the 2015 and 2016 spring flush.

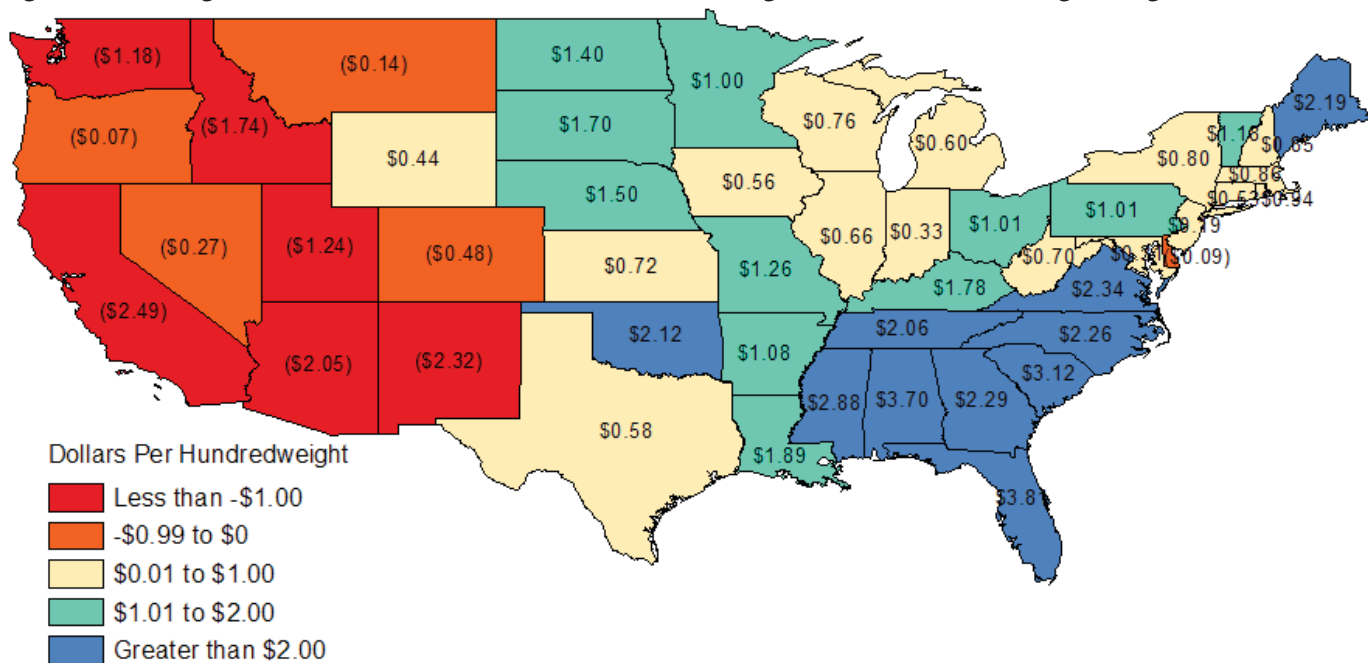
OPTION: Make Regional Adjustments in the MPP Margin Calculation

A substantial challenge to regionalizing MPP is the lack of monthly price data. USDA reports monthly milk prices for only 23 states, monthly corn prices for 18 states, and monthly alfalfa hay prices for 27 states. Only 3 states report all the average feed prices used in the MPP calculation.

To address the lack of monthly data, marketing year average price relationships could be used to approximate state-level MPP feed costs and margins. For example, in New York the marketing year average corn price was 18 percent higher than the U.S. average in 2015. Importantly, if regional adjustments are made to the feed component of MPP, corresponding adjustments to reflect regional differences in milk prices should also be made. Using New York as an example again, the average all-milk price was six percent higher in New York compared to the national average in 2015. These price differences in milk and/or feed could be used to adjust the national average prices up or down to reflect the local margin.

To evaluate how regionalizing MPP may work, the marketing year average price differences in milk and feed from 2009 to 2015 were evaluated. The average price differences were used to approximate state-level MPP margins. Figure 2 details the average MPP margin differences using milk and feed adjusters to the national average MPP margin. States with lower values tend to have state-level MPP margins below the national average. For example, due to higher feed prices and the State milk pricing system, California MPP margins average \$2.49 per hundredweight below the U.S. average.

Figure 2 - Average Difference Between State-Level MPP Margin and National Average Margin, 2009 - 2015



Using the observed price differences, MPP program payments were estimated for 2015 and 2016 using farm-level participation data, Table 1. In 2015, using a feed-only adjustment to the MPP margin would have increased program payments from \$730,000 to \$2 million. Through June 2016, the feed-only adjustment would have increased program payments by \$13.6 million. Similarly, adjusting both the milk and feed elements of the MPP margin would have increased program payments by \$49 million and \$30 million for 2015 and through June of 2016, respectively.

Program Payments Under Actual and Counterfactual MPP Policy Design Scenarios			
Payment Period	Actual MPP Program Payments	Program Payments Using Regional Feed Adjustment 1/	Program Payments Using Regional Milk and Feed Adjustment 1/
2015			
Jan-Feb	\$4,324	\$200,872	\$9,308,749
Mar-Apr	\$480,713	\$1,020,990	\$18,188,782
May-Jun	\$4,518	\$274,726	\$9,451,342
Jul-Aug	\$295,592	\$580,780	\$13,995,401
Sep-Oct	\$0	\$430	\$191,270
Nov-Dec	\$0	\$0	\$84,709
Total	\$727,831	\$2,077,798	\$50,221,254
Premiums Paid	\$72,869,315		
2016			
Jan-Feb	\$0	\$50,316	\$471,293
Mar-Apr	\$501,697	\$4,678,547	\$1,922,433
May-Jun	\$10,973,626	\$20,347,409	\$38,999,000
Total (YTD)	\$11,475,323	\$25,076,271	\$41,392,725
Premiums Paid	\$22,786,331		

1/ - Based on farm-level MPP sign-up data from 2015 and 2016. 2016 payments reflect January to June margins.

The results demonstrate that regional adjustments to MPP have the potential to increase aggregate program payments for some dairy producers. However, dairy producers with milk prices above the national average and feed costs near the national average may see MPP benefits reduced as a result. The adjustment would change the distribution of MPP program payments and create different MPP benefits across political boundaries. A similar concern on program payment disparity now exists in the ARC-CO program.

OPTION: Regional MPP Coverage Level

In order to offset the redistribution of MPP payments, the MPP coverage levels could also be adjusted in each region to reflect the historical average income-over-feed-cost margin. Under such a scenario, areas with higher average margins would be able to purchase higher MPP coverage levels, e.g. MPP coverage up to \$9.00 per hundredweight in New York. Areas with lower average margins would see their cascade of MPP coverage levels reduced from the current high of \$8.00.