Agricultural Price Program Update

May 2022
NASS Price Program Mission, Vision, and Goal

Mission Statement: The National Agricultural Statistics Service (NASS) price program provides relevant, timely, accurate, and useful statistics for use in evaluating the economic condition of the United States agricultural economy.

Vision Statement: NASS strives to be a premier provider of relevant, high quality, and useful agricultural price data, consistent with the other United States Federal and international statistical programs.

Goal: The objective of the price program for indexes is to measure the general level of price change farmers pay for agricultural input items and the general level of price change farmers receive for commodities sold.

Overview of Program Modifications

The calculation of the Prices Paid Index has been updated to better reflect the content of the Prices Paid Survey. This change in the index calculation applies to a subset of Prices Paid Indexes that use Bureau of Labor Statistics (BLS) and Energy Information Administration (EIA) data dating back to January 2017 and will be used for index calculation going forward. Starting with 2018, Prices Paid survey data were collected for the preceding year instead of March, and this new calculation better incorporates the new data in the annual benchmark process.

Updates to the Index Calculation

Starting in April of 2022, the Prices Paid annual benchmark process was updated to now use the annual average of administrative data from the previous year as a component of the index formula. Previously, this component was the most recent March estimate of the administrative data. This update better reflects the trends of the annual survey and accounts for the updated data collection time period from March of the current year to the entire previous year.

Description of the Equation

The following is the equation used to calculate the monthly Prices Paid Indexes at the item level.

\[ P_c^j = \left( \frac{p_0^j \cdot L_c^j}{p_b^j \cdot L_0^j} \right) \]

Here, \( P_c^j \) is the index of \( j^{th} \) item for the current month \( c \), \( p_0^j \) is the most recent annual price estimate of item \( j \), as determined by the latest Prices Paid Survey, and \( p_b^j \) is the base price of item \( j \). In the current Prices Paid indexes, the base price for item \( j \) is the price estimate from the 2011 Prices Paid survey. \( L_c^j \) is the linked administrative data for the current month \( c \) for item \( j \) (either BLS index or EIA fuel price) and \( L_0^j \) is the linked administrative data from the same timeframe as \( p_0^j \).

The update to the Prices Paid Index calculation prompting this special note pertains to a change in the administrative data used for the term \( L_0^j \). Because the change in Prices Paid survey methodology in 2018 led to the collection of annual price estimates for the previous year, the administrative data now being used for the term \( L_0^j \) is the annual equivalent for the previous year.

This change was retroactively applied to all applicable Prices Paid Indexes back to 2017, the first year in which the change in the Prices Paid Survey methodology would be applicable.