**2016 Econometric Report on the Impact on Tons from
the Paper and Packaging Board Advertising Campaign**

Frequently Asked Questions

Q1:   What are the key findings from the econometric study about consumption in 2016?

A: A preliminary study of the Paper and Packaging Board's advertising campaign suggests it helped generate in excess of 500,000 tons of consumption in 2016. Charged with stemming the decline in paper, the advertising campaign helped mitigate the loss of a minimum of 210,00 tons of paper consumption. The campaign is also charged with growing demand of paper packaging. It is estimated the campaign also helped create in excess of 290,000 tons of packaging consumption.

Q2:   How can you say the Paper and Packaging Board's ad campaign helped create in excess of 500,000+ tons of consumption when overall consumption of many paper products assessed by the checkoff continues to decline?

A: The USDA-required econometric analysis considers incremental new consumption as well as declines in consumption that are mitigated as a result of the campaign. In other words, the advertising campaign had the effect of protecting the loss of at least 210,000 tons in paper consumption. Without the campaign, the tons lost would have been another 2% worse. It is estimated that the campaign also helped create in excess of 290,000 new tons of packaging consumption.

Q3:   What types of inputs and data sets, were used in this research model?

A: This study was based on an econometric model developed for the paper industry created by Harry M. Kaiser, PhD, of Cornell. Professor Kaiser is the Gellert Family Professor of Applied Economics and Management at Cornell University and a widely recognized expert on evaluating the impact of checkoff programs.

Professor Kaiser worked closely with a working group of companies paying into the paper checkoff to develop five separate models including bond and writing paper, other printing and writing paper, containerboard, paperboard, and kraft paper to evaluate total impact. The models use statistical techniques and monthly consumption and related data since 2013 to determine what the main drivers of consumption are for each paper grade. The models are "counterfactual," which means they account for historical performance by grade, with and without advertising.

On the paper side, the paper models included a host of demand drivers including changes in white collar employment, an index of sales of electronic substitutes for paper (e.g., E-readers, smart phones), price of paper products, monthly seasonality variables and advertising campaign expenditures. For the packaging demand models, the following demand drivers were included: E-commerce, price of packaging products, food sales, seasonality variables and advertising campaign expenditures.

The econometric model then determines whether any of these potential demand drivers have a significant effect on consumption, and, if so, how big of an effect. The advantage of these models is that the impact of the advertising campaign can be netted out from the impact of these other demand drivers. Models are designed to understand historical consumption data but do not model future demand or predictive outcomes.

Q4. Is the estimate of 2016 consumption impact a typical return for checkoff programs?

A: The Paper and Packaging Board's (P+PB) advertising campaign has had some initial positive impact on both paper and packaging tons. The 2016 report only reflects one year of data that needs to be trended over time to judge the program's true impact. It is safe to say, however, that the results are a positive indicator that the campaign is on the right track.