



BEEF

Funded by the Beef Checkoff.

Beef Checkoff Return On Investment (ROI) Analysis, July 2019

Overview

CONDUCTED BY: Dr. Harry M. Kaiser, Cornell University

This independent evaluation is carried out by Dr. Harry M. Kaiser, who is the Gellert Family Professor of Applied Economics and Management at Cornell University. Dr. Kaiser is a nationally and internationally renowned expert in the economics of generic advertising and promotion programs. Dr. Kaiser has extensive experience in conducting economic evaluation studies of domestic and international checkoff programs. He has written 135 refereed journal articles, five books, 17 book chapters, over 150 research bulletins, and received \$8 million in research grants in the area of agricultural marketing with an emphasis on promotion programs.

PRIMARY FOCUS

This study is to provide an independent economic evaluation of the effectiveness and impacts of the CBB marketing and research programs over the past five years, 2014-2018.

TWO CENTRAL OBJECTIVES OF THE STUDY

1. To measure whether the CBB promotion, educational, and research activities increased consumption of beef products in the United States and foreign markets compared to what would have occurred in the absence of these activities.
2. To measure the benefits of the CBB activities in terms of incremental profitability for the entire industry and compare these benefits with the cost of the checkoff to compute a benefit-cost ratio (BCR) for its stakeholders.

BENEFIT-COST RATIO (BCR) DEFINITION

- A benefit-cost ratio (BCR) is an indicator showing the relationship between the relative costs and benefits of a proposed project, expressed in monetary or qualitative terms.
- If a project has a BCR greater than 1.0, the project is expected to deliver a positive net present value to its investors.
- If a project's BCR is less than 1.0, the project's costs outweigh the benefits and it should be evaluated.

Highlights



DOMESTIC DEMAND:

Had there not been any domestic CBB demand-enhancing activities over the latest 5-year period, 2014 through 2018, total domestic beef demand would have been 14.3% lower than actual.



FOREIGN DEMAND:

Similarly, had there not been any CBB contributions to FAS and USMEF's foreign market development programs over the past 5 years, U.S. beef export demand would have been 5.5% lower than actual in the eight foreign markets studied here.



ALL DEMAND-ENHANCING ACTIVITIES ARE PERFORMING WELL ABOVE AVERAGE:

All nine individual CBB demand enhancing activities (eight domestic + one foreign) had marginal BCRs well above 1.0 indicating their marginal benefits were well greater than their marginal costs.



INVESTMENT OF \$1.00 RETURNS \$11.91 TO BEEF COMMUNITY PROFIT:

Collectively, the overall BCR for all nine CBB activities (including foreign market development) is \$11.91. In other words, an extra dollar invested in CBB activities over the period, 2014-18, returned \$11.91 to beef industry producer profit.

To view the full report, talking points and this summary visit beefboard.org/ROIStudy

Cattlemen's Beef Board (CBB) Program Expenditures

The CBB was implemented in 1986 as part of the 1985 Farm Bill and is designed to increase the overall demand (both domestic and foreign) for U.S. beef products. The CBB is funded by a mandatory assessment of \$1.00 per head on all cattle sold in the U.S. and a \$1.00 per head equivalent on all imported cattle, beef and beef products. Collectively, this program raises approximately \$40.5 million on an annual basis for national programs.

CBB ACTIVITIES

The CBB invests in a variety of activities to accomplish its overall objective of improving the demand for U.S. beef products. In this report, the marketing activities are divided into nine categories:

- Generic beef advertising
- Channels marketing
- Product enhancement research
- Public relations
- Industry information
- Nutritional research
- Beef safety research
- New product development
- Foreign market development

THE BUDGET

In 2006, these nine CBB activities totaled \$42.8 million. By 2018 it totalled \$36 million, a decline of 15.9%. Hence, the budget that the CBB operates has substantially declined since 2006 in nominal terms. Factoring in the impact of inflation on eroding these nominal expenditures, this decline is even more severe.

FIGURE 1.
Total CBB Budget, 2006–2018.

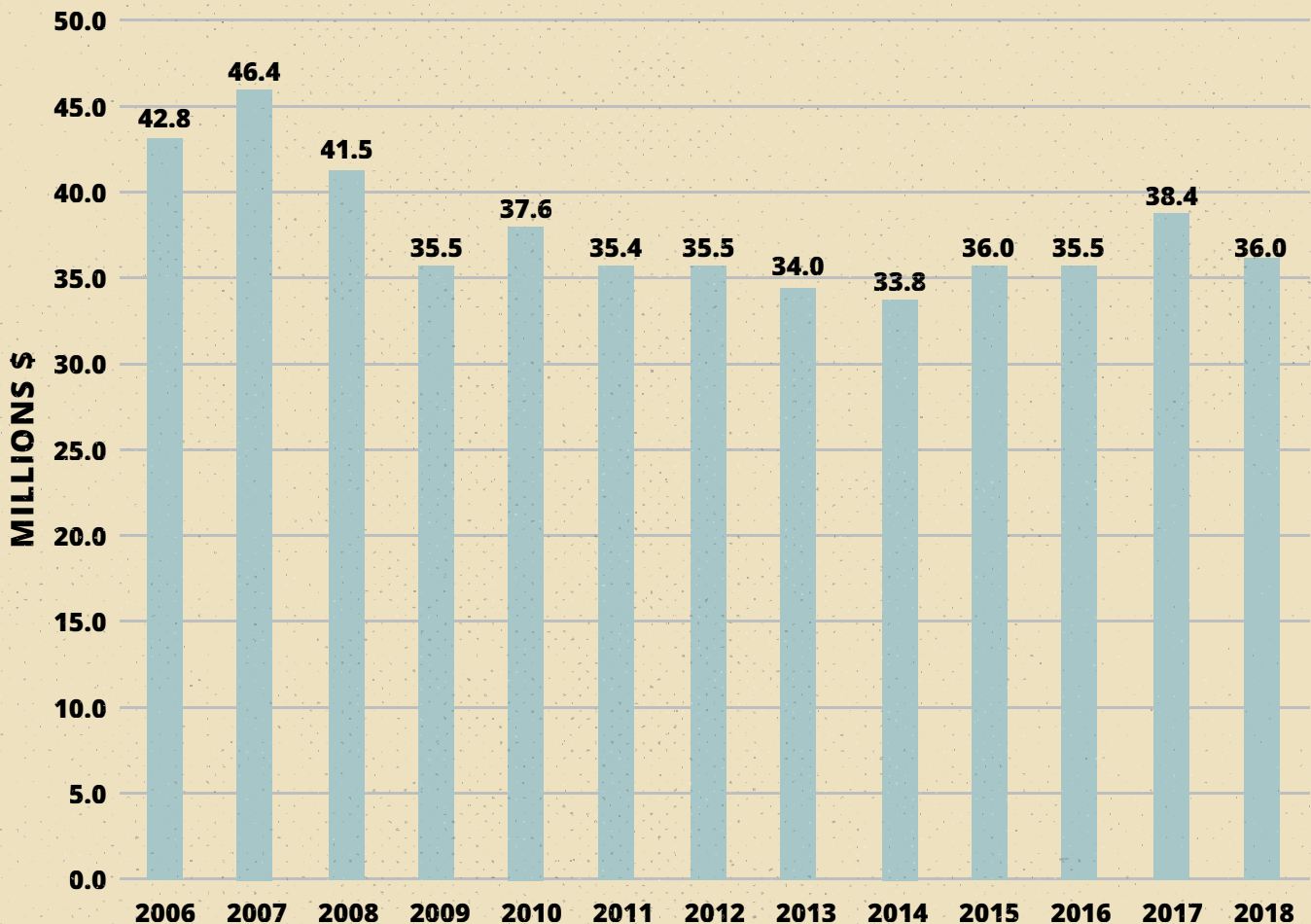
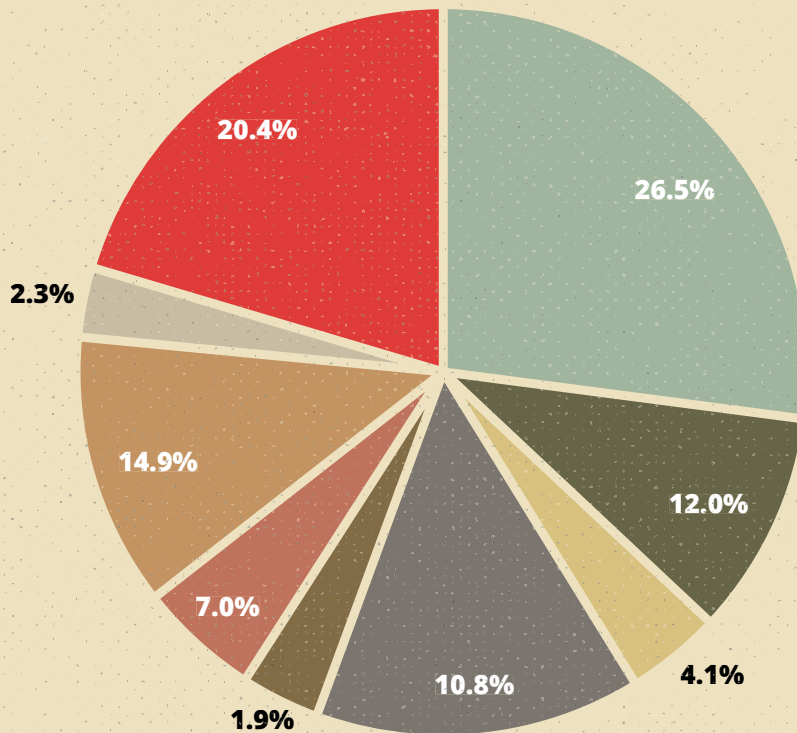


FIGURE 2.
Percent of CBB Expenditures by Major Activity, 2018.



GENERIC BEEF ADVERTISING

In 2006, the CBB devoted 35.4% of their budget on advertising. By 2018, this share decreased to 26.5%. Hence, while advertising is still the most important activity by the CBB, it has declined somewhat. However, in recent years, i.e., since 2015, the CBB has increased the share of the budget devoted to advertising, increasing from 19.2% to 26.5%.

FOREIGN MARKET DEVELOPMENT

In 2018, the U.S. exported about 2.7 billion pounds of beef (commercial carcass weight) which represents 13% of the total supply of U.S. beef. There has been a steady positive trend over this period in this category of activities. In 2006, the CBB invested 9.7% of its budget into this activity, and by 2018 it comprised 20.4% of the CBB budget.

CHANNELS MARKETING

This category includes all programs that support beef promotion and marketing in retail and foodservice. This category has declined over time. In 2006, CBB invested 18.5% of its budget in channels marketing, and by 2018 this had declined to 12%.

PUBLIC RELATIONS

Public Relations expenditures have declined slightly over time from 16% in 2006 to 14.9% in 2018. However, in the past five years, the CBB has devoted a relatively consistent share of the budget to PR.

NUTRITIONAL RESEARCH

Another activity that has increased over time as a share of CBB's budget is nutritional research. Nutritional research includes all research projects focusing on beef's role in human nutrition. Nutritional research was only 2% of the budget in 2006, and this grew to 7% in 2018.

INDUSTRY INFORMATION

One category that CBB has substantially increased spending on is industry information. This category includes all programs that focus on sharing information with consumers on industry specific information (this can include topics such as animal care and handling, producer spokesperson training, crisis preparedness and response, etc). In 2006, the CBB spent just 3.2% of its budget on industry information, and by 2018 this category almost tripled to 10.8%.

NEW PRODUCT AND CULINARY DEVELOPMENT

Expenditures in this category reached a high of 7.3% of the CBB budget in 2010, but has since then consistently declined. In 2018, this category represented 1.9% of the budget.

BEEF SAFETY RESEARCH

Since 2006, CBB expenditures on beef safety research have declined from 5.4% of the total budget in 2006 to 2.3% in 2018.

PRODUCT ENHANCEMENT RESEARCH

This category includes all research programs focused on product quality and product enhancement including muscle profiling (identifying new cuts within undervalued areas of the carcass, i.e. flat iron steak), tenderness, shelf-life, etc. This category has been relatively stable over time. In 2006, the CBB devoted 4.4% of the budget to this category, and in 2018 they devoted 4.1%.

Methodology

This study quantifies the relationship between the various marketing activities of the CBB and the domestic and international demand for U.S. beef.

The econometric approach quantifies economic relationships using economic theory and statistical procedures with data. It enables one to simultaneously account for the impact of a variety of factors affecting demand and supply for a commodity.

The three econometric equations to be estimated include:

- retail domestic beef demand
- retail domestic beef supply
- U.S. beef import demand

The three econometric equations are used to test whether various activities by the CBB such as advertising, public relations, channel marketing, new product marketing and export market development and promotion activities have a statistically significant impact on beef demand.

Results

The statistical results indicate that all eight CBB domestic demand-enhancing activities have a positive and statistically significant impact on increasing per capita beef demand. All the activities of the CBB have a positive and statistically significant impact on beef demand. For example, holding constant all other demand drivers, a 10% increase in advertising and nutritional research increase beef demand by 0.48% and 0.47%, respectively. The rest of the CBB activities have similar, but slightly smaller demand impacts.

DOMESTIC DEMAND

From 2014 to 2018, all CBB's promotion and research activities increased total domestic beef demand by 12.8 billion pounds in total, or 2.6 billion pounds per year. This represents an annual increase in domestic beef demand of 14.3 percent. In other words, had there been no CBB activities over the period 2014-2018, domestic beef demand would have been 14.3% lower than it actually was. Hence, the efforts of the CBB clearly have a positive and substantial effect on domestic beef demand.

FOREIGN DEMAND

GDP is the most important elasticity of demand for U.S. beef. Specifically, holding constant all other import demand drivers, a 1% increase in real inflation adjusted GDP in each country increases import demand for U.S. beef by 3.52%.

The U.S. beef price is an important demand driver for U.S. beef imports to the eight regions. The value of the U.S. dollar also has an important impact on U.S. beef imports. A 1% increase in the value of the U.S. dollar decreases U.S. beef imports into these eight regions by 1.5% in the short-run and 3.3% in the long-run, holding all other demand determinants constant.

Foreign market development expenditures by the CBB, USMEF and FAS combined is positive and statistically significant indicating that U.S. beef export promotion has a positive impact for U.S. beef imports to the eight regions. A 10% increase in beef export promotion results in a 0.97% increase in U.S. beef imports. The U.S. beef export promotion has had a positive impact on U.S. beef imports to the eight foreign markets.

Based on the most recent 5-year period (2014-18), the results indicate that had there not been any CBB export promotion to these eight foreign markets, U.S exports to these markets would have been 5.5% lower.

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