

AUTHORIZATION REQUEST FOR FY 21

CBB Budget Category: **Research**

Name of Contractor: **United States Cattlemen's Association**

Name of Organization Subcontracting: **Dr. Harry Kaiser, Ph.D**

Start Date: **10/1/2020**

End Date: **9/30/2021**

AR OVERVIEW

AR Description:

The purpose of the proposed research project is to illustrate the direct benefits of activities carried out by the Beef Checkoff not only for beef producers and importers, but also for beef packers and retailers.

Funding	Direct Costs	Implementation	Total
CBB/BPOC Funding Request:	\$68,400	\$3,600	\$72,000

Other Potential Funding	Direct Costs	Implementation	Total
Federation of SBCs Pledges: (Informational Only)	\$0	\$0	\$0
Other Funding: (Informational Only)	\$0	\$0	\$0

Long Range Plan Core Strategies Addressed by this AR *(Check all that apply)*

Grow Beef Exports	Consumer Trust	Protect & Enhance	Beef's Value Proposition
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

PROGRAM INFORMATION FOR THIS AR**Tactic A**

Tactic Name: The Distributional and Indirect Effects of the Beef Checkoff

Tactic Description:

The Beef Checkoff has a central mission to increase the demand for beef through implementing consumer advertising, marketing partnerships, public relations, educational programming, research, and new product development.

A 2019 study found that the Beef Checkoff had a positive and significant impact on beef demand compared to what it would have been in its absence (Kaiser, 2019). Had there not been any domestic Beef Checkoff demand enhancing activities over the latest 5-year period, 2014 through 2018, total domestic beef demand would have been 14.3% lower than it was. Similarly, had there not been any Beef Checkoff contributions to the FAS and USMEF's foreign market development program over the past 5 years, U.S. beef export demand would have been 5.5% lower than it actually was in the eight foreign markets studied here. More importantly, the overall benefit-cost ratio for the Beef Checkoff was \$11.91. In other words, an extra dollar invested in Beef Checkoff activities over the period, 2014-18, returned \$11.91 to beef industry producer profit.

This is useful information to the stakeholders of the program. However, the 2019 study (indeed no previous study) did not examine the indirect or distributional effects of the Beef Checkoff. For example, did the Beef Checkoff activities increase beef packers' demand, price, and profits at the wholesale level of the beef market. Likewise, did the Beef Checkoff activities increase retailers' beef demand, prices, and profits? If so, by how much? In addition, what were the indirect impacts of the increase in domestic and foreign beef demand on the macro-economy? For instance, what was its impact on employment, GDP, and tax revenue? These distributional and indirect effects may be just as significant, if not more significant than the direct effects that were measured in the 2019 study.

Objective:

Accordingly, the purpose of the proposed research project is to measure the distributional and indirect effects of the Beef Checkoff. Specifically, this research proposes to address two main objectives:

1. Quantify and measure the economic benefits of Beef Checkoff -funded programs for the period 2013-2018 on wholesale and retail beef demand, prices, and profits.
2. Quantify and measure the indirect economic benefits of Beef Checkoff-funded programs for the period 2014-2019 on the general economy including the impact on incremental employment, GDP, and tax revenue.

Procedural Overview:

Similar to a dairy industry study by Kaiser (1997), an industry-wide econometric model will be developed, where the beef industry will be divided into three markets: farm-level, wholesale or processing, and retail markets. At each market-level, respective demand and supply equations will be estimated with time series data. The promotion effort by the Beef Checkoff will be modeled as one of the demand drivers at the retail level, in addition to other demand drivers such as retail beef price, price of beef substitutes, and consumer income. If Beef Checkoff promotion increases the retail demand by consumers for beef, the model will be able to measure how this impacts the wholesale demand for beef products at the processing level, and how this impacts the farm demand for beef. We would expect that an increase in retail beef demand will impact prices at all three levels, and such a model will be capable of measuring these impacts.

The estimated industry econometric model will then be simulated for two scenarios for the past 5 years: (1) a baseline scenario in which Beef Checkoff promotion is in effect and expenditures on promotion are set at actual levels; (2) a counterfactual scenario, where the Beef Checkoff is eliminated.

The difference between the two scenarios gives the impact of Beef Checkoff promotion expenditures on beef demand and prices at the retail, processor and farm-levels of the beef industry.

Benefits to Partners:

Unlike the 2019 study by Kaiser, this analysis will be able to measure the direct benefits of the CBB not only for beef producers and importers, but also for beef packers and retailers. The benefits will be measured at each market level as the incremental profits or net revenue accruing from the existence of the Beef Checkoff. This will provide important information previously not available since both beef processors and retailers benefit from the increase in beef demand generated by beef producers through the Beef Checkoff.

In addition, the Beef Checkoff indirectly benefits a range of actors beyond beef producers, packers, and retailers. For example, local input suppliers benefit from additional feed purchases by beef producers due to the Beef Checkoff. Local workers benefit from either higher wages, or more farm and post-farm processing jobs due to the Beef Checkoff. State and local governments also benefit from the incremental taxes associated with growers' earnings.

Data and Information Gathered:

To examine these indirect effects of the Beef Checkoff, an "input-output" model of the U.S. macro- economy will be used to simulate the same two scenarios as above. In comparing the two scenarios, Dr. Kaiser will calculate the implied increment in employment, labor income, value added, tax revenue, and GDP associated with the having Beef Checkoff promotion in effect. The results will provide a summary

measure of the broader regional-macroeconomic impact of Beef Checkoff promotion. These impacts will be measured at the national level.

An input-output model called IMPLAN (IMpact analysis for PLANning, Mig, Inc.), which consists of a large-scale input-output database representing nearly every industry in the U.S. at the ZIP code, county, and state level, will be used to evaluate the impact of Beef Checkoff promotion on the broader U.S. economy.

Project Timeline:

This project will take four months to complete once approved with the following time schedule:

Month 1-2: data assembly. This phase of the project will consist of the development of the data base.

Month 2-3: econometric estimation. After the data is compiled, the beef industry econometric model will be estimated.

Month 4: simulation analysis and reporting phase. During this phase, the market impacts of the scenarios described above will be simulated and the report will be written.

Reporting:

The final product will be a comprehensive report delivered to Beef Checkoff members and disseminated to industry stakeholders.

References:

Kaiser, Harry M. "An Economic Analysis of the Cattlemen's Beef Promotion and Research Board Demand-Enhancing Programs." 2019.
Kaiser, Harry M. "Impact of National Dairy Advertising on Dairy Markets, 1984-95." *Journal of Agricultural and Applied Economics*. 29(1997):303-14.

Measurable Objectives (*List relevant outcome-based objectives for this tactic*):

Specific objectives include:

- 1) Quantify and measure the economic benefits of CBB-funded programs for the period 2013-2018 on wholesale and retail beef demand, prices, and profits.
- 2) Quantify and measure the indirect economic benefits of CBB-funded programs for the period 2014-2019 on the general economy including the impact on incremental employment, GDP, and tax revenue
- 3) In-person dissemination of findings and implications to producers and industry stakeholders.

Performance Efficiency Measures

Consumer Reach Goal: The research goals of this project and the corresponding report won't necessarily be geared towards reaching consumers, though consumers may encounter the information once it is disseminated through certain media channels.

Consumer Engagement Goal: N/A

KOL Reach Goal: 500 | This reflects approximately 300 in-person attendees for presentations delivered by Dr. Kaiser and approximately 200 attendees of the checkoff update session during Annual Convention. Note this conservative estimate fully ignores any additional reach that follows from other interactions Dr. Kaiser has with influential, industry leaders throughout the year.

KOL Engagement Goal: 50 | This reflects a conservative estimate that 10% of those reached, engage and take action with content received.

LRP Strategic Initiatives Addressed by this Tactic *(Check all that apply)*

Drive Export Growth	Grow Consumer Trust	Protect & Enhance Business Climate	Beef's Value Proposition
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- | | | | |
|---|---|---|---|
| <input type="checkbox"/> Adopt animal I.D. traceability systems

<input type="checkbox"/> Increase market access

<input type="checkbox"/> Promote unique attributes of U.S. beef | <input type="checkbox"/> Ensure antibiotic stewardship

<input type="checkbox"/> Certify & verify production practices

<input type="checkbox"/> Ensure beef safety

<input type="checkbox"/> Protect beef's image

<input checked="" type="checkbox"/> Engage beef advocates | <input type="checkbox"/> Research & innovate new production technologies

<input type="checkbox"/> Ensure beef's inclusion in dietary recommendations

<input checked="" type="checkbox"/> Motivate producers & stakeholders to engage in issues

<input type="checkbox"/> Develop crises management plans

<input type="checkbox"/> Defend beef's product identity | <input type="checkbox"/> Revolutionize beef marketing & merchandising

<input type="checkbox"/> Measure & improve our sustainability

<input type="checkbox"/> Research & communicate beef's nutritional benefits

<input type="checkbox"/> Connect & communicate directly with consumers

<input type="checkbox"/> Improve our product |
|---|---|---|---|

Committee(s) to Score this Tactic *(Check all that apply)*

Consumer Trust	Export Growth	Innovation	Nutrition & Health	Safety	Investor Relations	Mkt. Research
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

SUPPLEMENTAL INFORMATION FOR THIS AR**1. Please explain changes from FY 2020 approved AR:**

Whereas USCA's FY 2020 AR studied the relationship between consumer willingness-to-pay of certain meat products, the FY 2021 AR will examine how the activities of the Beef Checkoff effect wholesale and retail beef demand, prices, and profits.

2. List any proposed vendors/agencies that will be used to complete the work in this AR.

Dr. Harry M. Kaiser is the Gellert Family Professor and associate dean for academic affairs at the Charles Dyson School of Applied Economics and Management at Cornell University. Dr. Kaiser will be responsible for leading and overseeing this project, acting as a private consultant separate from the university.

3. Will all work with vendors be competitively bid?

No

If not, why not?

Dr. Kaiser has built decades of experience in this specific interest area. He is the best equipped to carry out this work.

4. Please list any relationships between this AR and projects previously funded by the Operating Committee:

A 2019 study by Dr. Kaiser titled "An Economic Analysis of the Cattlemen's Beef Promotion and Research Board Demand-Enhancing Programs" found that the CBB had a positive and significant impact on beef demand compared to what it would have been in its absence. However, the 2019 study (indeed no previous study) did not examine the indirect or distributional effects of the CBB.

DETAILED BUDGET SUMMARY:

AR# 2112-R

CBB/BPOC Funding Request:

Committee Name	Tactic	Tactic Name	Funding Source	Direct	Implementation	Total
<i>Investor Relations Working Group</i>	A	The Distributional and Indirect Effects of the Beef Checkoff	BPOC	\$ 68,400	\$ 3,600	\$ 72,000
AR Totals				\$ 68,400	\$ 3,600	\$ 72,000

Federation of SBCs Pledges/Other Funding Source(s): (Informational Only)

Committee	Tactic	Tactic Name	Funding Source	Direct	Implementation	Total
<i>Investor Relations Working Group</i>	A	The Distributional and Indirect Effects of the Beef Checkoff	Federation	\$ -	\$ -	\$ -
AR Totals				\$ -	\$ -	\$ -

Summary of Prior Year AR Budgets and Expenses:

Summary of Prior Year Budget:	FY 2020 Approved Budget						
	CBB/BPOC	FSBCs	Other Source(s)	Total	Direct Cost	Impl.	Total
AR Totals	\$ 359,126	\$ -	\$ 300,000	\$ 659,126	\$ 641,126	\$ 18,000	\$ 659,126

FY 2020 Actual Expenses (through June 30, 2020)	FY 2020 Actual						
	CBB/BPOC	FSBCs	Other Source(s)	Total	Direct Cost	Impl.	Total
AR Totals	\$ 153,507		\$ -	\$ 153,507	\$ 153,507	\$ -	\$ 153,507

Historical Summary of Budgets and Expenses: (includes all funding sources listed in original AR)

	Total Approved Budgets			Total Actual Expenses		
	FY 2019	FY 2018	FY 2017	FY 2019	FY 2018	FY 2017
AR Totals	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -