

# **Analyzing Consumers' Value of "Product of USA" Labeling Claims**

**OMB No. 0583-NEW**

## **Supporting Statement**

### **A. Justification**

#### **A.1. Circumstances Making Collection of Information Necessary**

The U.S. Department of Agriculture's (USDA's) Food Safety and Inspection Service (FSIS) has been delegated the authority to exercise the functions of the Secretary (7 CFR 2.18, 2.53), as specified in the Federal Meat Inspection Act (FMIA) (21 U.S.C. 601, *et seq.*) and Poultry Products Inspection Act (21 U.S.C. 453 *et seq.*). This statute mandates that FSIS protect the public by verifying that meat and poultry products are safe, wholesome, unadulterated, and properly labeled and packaged.

The FSIS Food Standards and Labeling Policy Book (the "Policy Book") provides guidance to help meat and poultry product manufacturers prepare product labels that are truthful and not misleading. The "Policy Book" states that labeling may bear the phrase "Product of USA" under one of the following conditions:

1. if the country to which the product is exported requires this phrase, and the product is processed in the United States or
2. if the product is processed in the United States (i.e., is of domestic origin).

Accordingly, the "Product of USA" labeling claim may be applied to meat or poultry products derived from animals that have been imported from a foreign country but slaughtered in the United States, as well as to meat or poultry products that have been imported from a foreign country and repackaged or otherwise further processed in the United States.

USDA has received three petitions from industry associations regarding the origin of meat products bearing the “Product of USA” labeling claim, requesting that the meaning of the claim be publicly revised by USDA. Additionally, in August 2021, bills were introduced in the House of Representatives and the Senate to require that the “Product of USA” labeling claim be limited to beef products derived from cattle born, raised, and slaughtered in the United States. To address the concern that the “Product of USA” labeling claim may not accurately reflect consumer understanding about the origin of FSIS-regulated products, FSIS intends to initiate rulemaking after conducting a comprehensive review of the current voluntary “Product of USA” labeling claim.

To provide information needed to support rulemaking, FSIS is requesting approval for a new information collection to conduct a consumer web-based survey/experiment on “Product of USA” labeling on meat (beef and pork) products.<sup>1</sup> FSIS has not previously conducted consumer research on this topic.

The web-based survey/experiment will address three primary research questions: (1) Do consumers notice the “Product of USA” labeling claim?; (2) Do consumers understand the current “Product of USA” definition and other “USDA” labeling (e.g., “USDA Choice”) as it relates to country of origin?; and (3) How much are consumers willing to pay for meat products bearing the “Product of USA” labeling claim for the current definition and potential revised definitions (e.g., if the meat were from an animal that was born, raised, slaughtered, and processed in the United States)? Survey participants will respond to all portions of the survey addressing these research questions, and analyses of the responses will assess the implications of

---

<sup>1</sup> Although the current guidance applies to all meat and poultry products, the focus of the petitions and the proposed legislation is on the labeling of meat (beef and pork) products.

the dependencies of the responses, namely, that consumers who do not notice or understand the “Product of USA” label may have lower willingness-to-pay (WTP) for the label.

## **A.2. How, by Whom, and Purpose Information Is to Be Used**

FSIS has contracted with RTI International to conduct the web-based survey/experiment. The web-based survey/experiment will comprise three components that align with the three research questions listed in Section A.1. For the first component, respondents will complete a limited time exposure (LTE) task to determine whether consumers notice the “Product of USA” labeling claim (i.e., to indicate saliency). Respondents will be randomly assigned to view one of four mock products that vary in terms of whether the “Product of USA” claim is present and, if present, the location and format of the “Product of USA” claim. Respondents will be exposed to the mock product for a limited time (e.g., 20 seconds), then asked to list what labeling features they recall (unaided), and then asked to answer a series of recognition questions to indicate whether they saw specific images and phrases (including the “Product of USA” claim). Responses will be statistically analyzed to determine respondents’ saliency or degree of attention for the “Product of USA” labeling claim given the location and format of the claim.

For the second component, respondents will answer survey questions to address (1) their understanding of the current “Product of USA” labeling claim as it relates to product country of origin (e.g., born, raised, slaughtered, processed) and (2) their understanding of the meaning of other “USDA” labeling such as “USDA Choice” or the USDA mark of inspection, as related to product country of origin.

For the third component, respondents will complete a discrete choice experiment (DCE) to measure their intrinsic value WTP for products bearing the “Product of USA” labeling claim for the current definition and potential revised definitions (e.g., the meat is from an animal that was both slaughtered and processed in the United States). Respondents will complete a series of

choice questions in which they are asked to choose between two hypothetical products, for example, two ground beef products that differ based on the following attributes: price (\$/lb), definition for “Product of USA” labeling claim, and the presence or absence of other labeling claims (e.g., diet and production conditions). Responses will be statistically analyzed to estimate a random utility model. This model captures the strength of preference for changes in these attributes. The coefficients of this model, sometimes called part-worth utilities, capture the strength of respondents’ preferences for changes in each attribute. The ratio of these preference weights can be used to describe the trade-offs respondents are willing to make among the attributes included in the model. For example, the ratio of the coefficient on the current definition of the “Product of USA” labeling claim and the coefficient on price captures the trade-off respondents are willing to make between the labeling claim and the price of the meat product. In other words, this ratio captures the price premium the average respondent is willing to pay for a product that bears the current definition of the “Product of USA” labeling claim. More details on how the random utility model will be estimated and how WTP will be measured are provided in Part B, Section B.2.

The survey instrument, comprising the three components, is expected to take an average of 20 minutes to complete. Eight cognitive interviews were conducted by RTI in April 2022 to determine the burden estimate and to evaluate and refine the instrument (described in Part B, Section 4). Participants received a \$50 gift card for participating in the cognitive interviews. Appendix A provides the final instrument (English and Spanish translation and screenshots).

To administer the survey, RTI will partner with Ipsos’s KnowledgePanel (<https://www.ipsos.com/en-us/solutions/public-affairs/knowledgepanel>) a probability-based panel that is designed to be representative of the U.S. adult population and whose panel members

are recruited using address-based sampling and weighting procedures to provide nationally representative estimates. From its panel of almost 60,000 members, Ipsos will select a sample that is sufficient to yield 4,400 responses (including 300 people who generally speak Spanish at home). Part B, Sections 1 and 2 provide additional information on the KnowledgePanel construction and sampling procedures.

A selected sample of panel members will be invited to participate in the study via email (see Appendix B for the email invitation). Surveyed individuals will be adults (18 years of age or older) who speak English or Spanish (the survey will be translated into Spanish), have primary or shared responsibility for grocery shopping for the household, and are purchasers of meat products. To maximize the response rate, up to two email reminders will be sent to nonresponding sample members (see Appendix C).

After receiving Office of Management and Budget (OMB) approval, RTI will work with Ipsos to conduct a pilot study to ensure that programming logic is correct before the full-scale study begins. Ipsos will launch the full-scale study after completing the pilot study. If changes to the survey instrument are required based on the pilot study, FSIS will submit a revised version of the instrument for review and approval before launching the full-scale study. Respondents will receive a \$5 (equivalent) incentive for participating in the pilot or full study which they can redeem for vouchers or gifts, checks, or raffle entries (see Section A.9).

Ipsos will provide a de-identified dataset with the experimental data and survey responses to RTI. Part B, Section B.2 provides information on hypothesis testing for each of the three research questions and the statistical analysis procedures that RTI will use. RTI will prepare a final report for FSIS that summarizes the study methods and presents the results of the study and

will deliver data files to FSIS with the raw data for the experiment and survey and the analysis datasets.

FSIS will use the results of the web-based survey/experiment to inform the development of its proposed rulemaking on the “Product of USA” labeling claim. The results from the DCE on WTP for the “Product of USA” labeling claim for the current definition and potential revised definitions as well as other survey findings will be used in the cost-benefit analysis as required by Executive Orders (EOs) 12866 and 13563, which direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety benefits, distributive impacts, and equity). E.O. 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility.

Results from the LTE will provide estimates of consumer saliency for the current “Product of USA” labeling claim given the format and location of the claim (i.e., do consumers notice the labeling claim?). Analysis of the survey questions on consumer knowledge will provide estimates of the percentage of survey respondents who correctly identify the current definition of the “Product of USA” labeling claim. Estimates of WTP for the “Product of USA” labeling claim for the current definition and potential revised definitions will be used along with other supporting material and data, such as petitions from industry associations and comments on those petitions Label Insight,<sup>2</sup> IRI scanner data,<sup>3</sup> the Food and Drug Administration’s Labeling

---

<sup>2</sup> Label Insight is a market research firm that collects data on over 80% of food, pet, and personal care products in the U.S. retail market. Data are collected mostly from web scraping and company submissions. See <https://www.labelinsight.com/our-difference/> for more information.

<sup>3</sup> IRI is a market research firm that collects scanner data from supermarkets, drugstores, and mass merchandisers and maintains a panel of consumer households that record purchases at outlets by scanning Universal Product Codes on the products purchased.

Cost Model (RTI International, 2015), and comments received through rulemaking, to estimate the benefits of the regulation.

### **A.3. Use of Improved Information Technology**

The study will use web-based data collection in lieu of in-person data collection or an address-based mail survey with push to web (i.e., multimode approach). Compared with in-person data collection, web-based data collection will greatly reduce the burden on participants because they will not be required to travel to a central location to complete the survey/experiment. The use of web-based data collection will also expedite the timeliness of data collection because a web-based-only approach will take up to 4 weeks to administer compared with to 4 to 5 months for an in-person or a multimode (mail/web) approach. Furthermore, the use of web-based data collection with participants located throughout the United States will allow the study to reach a more diverse study population than would otherwise be possible using an in-person approach and will be significantly less costly to implement.

### **A.4. Efforts to Identify and Avoid Duplication**

FSIS conducted a literature review on “Product of USA” labeling of meat products and did not identify any studies that explicitly addressed the study’s three research questions. There has been substantial research on consumer preferences, understanding, use, and WTP for country-of-origin labeling (COOL) of meat products (Umberger, 2010; Loureiro & Umberger, 2007). However, studies on COOL are not directly relevant because they did not examine consumers’ WTP for meat products labeled as “Product of USA” for the current and alternative definitions. Based on its literature review, the Agency concluded that the existing knowledge base on the “Product of USA” labeling claim does not meet the Agency’s informational needs.

### **A.5. Methods to Minimize Burden on Small Business Entities**

No small businesses will be involved in this collection.

## **A.6. Consequences of Less Frequent Data Collection**

This is a onetime data collection.

## **A.7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5 that Would Cause the Information Collection to be Conducted in a Manner:**

- requiring respondents to report information to the Agency more often than quarterly;
- requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;
- requiring respondents to submit more than an original and two copies of any document;
- requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than 3 years;
- in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;
- requiring the use of a statistical data classification that has not been reviewed and approved by OMB;
- that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or that unnecessarily impedes sharing of data with other agencies for compatible confidential use; or
- requiring respondents to submit proprietary trade secret or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.



This information collection fully complies with 5 CFR 1320.5(d) (2). No special circumstances that would be inconsistent with the regulation are associated with this information collection.

#### **A.8. Consultations with Persons Outside the Agency**

In accordance with the Paperwork Reduction Act, FSIS published a 60-day notice requesting comments regarding this information collection request (87 FR 5455-5456; February 1, 2022) and received a total of 1,068 comments. The majority of comments were unrelated to the proposed survey and expressed opinions about USDA, offered a definition for “Product of USA” and/or were about labeling of meat products. Among the comments that were relevant to the survey, a handful addressed methodology, while others expressed opinions on why the survey was either necessary or unnecessary.

Three of the relevant comments were unrelated to the methodology for the proposed web-based survey/experiment. U.S. Senator Mike Rounds of South Dakota, The Ranchers Cattlemen Action Legal Fund United Stockgrowers of America (R-CALF), and the Western Organization of Resource Councils commented that the survey was not necessary. Additionally, U.S. Senator Mike Rounds of South Dakota and R-CALF commented that the definition for the “Product of USA” labeling claim should be born, raised, slaughtered, and processed in the United States. The web-based survey/experiment is needed as part of FSIS’s comprehensive review of the current “Product of USA” labeling claim and to pursue rulemaking. Regarding changing the definition for the “Product of USA” labeling claim to “born, raised, slaughtered, and processed in the United States,” one of the purposes of the web-based survey/experiment is to collect information on consumer response to potential revised definitions for “Product of USA.”

Four of the relevant comments were related to the methodology for the proposed web-based survey/experiment: National Family Farm Coalition (NFFC), Canadian Cattlemen’s

Association, the U.S. Cattlemen’s Association, and the country of Canada. Their comments generally focused on two areas: (1) concerns about excluding individuals without Internet access or an email address from the survey and (2) concerns that hypothetical and indirect WTP studies significantly overstate a consumer’s real WTP.

Regarding exclusion of individuals without Internet access/email addresses, KnowledgePanel participants are recruited through address-based sampling using a random sample of addresses from the U.S. Postal Service’s Delivery Sequence File. Randomly sampled addresses are invited to join the KnowledgePanel by mail or telephone. Non-Internet households are provided a web-enabled tablet and free Internet access. For a specific survey, Ipsos sends email invitations to selected panelists with a link to the survey.

Regarding concerns that hypothetical and indirect WTP studies significantly overstate a consumer’s real WTP, the study methodology described below addresses this concern in the following four ways:

(1) The existing evidence supports the external validity for hypothetical DCEs, which is the approach being used for the “Product of USA” study. Previous research has investigated the extent to which hypothetical DCEs overstate consumers’ actual WTP. For example, Lusk and Schroeder (2004) compared hypothetical and nonhypothetical responses to choice questions involving beef ribeye steak with differing attributes. This study found that hypothetical choices did overestimate total WTP for beef steaks. However, it also found that WTP for changes in individual steak attributes (such as steak quality) were not statistically different across hypothetical and actual payment settings. This distinction is important because, as noted above, the present study focuses on measuring how much respondents are willing to pay for changes in

a single meat product attribute (i.e., whether a meat product is labeled as “Product of USA” and how that label is defined).

In addition to Lusk and Schroeder (2004), other studies have investigated how well hypothetical choice experiments like the one used in this study actually predict consumer behavior. For example, Chang et al. (2009) compared the ability of three preference elicitation methods (hypothetical choices, nonhypothetical choices, and nonhypothetical rankings) to predict actual retail shopping behavior for three product categories (ground beef, wheat flour, and dishwashing liquid). This study found that all three elicitation methods exhibited a reasonably high level of external validity.

(2) The study design helps mitigate the risk of hypothetical bias by including specific instructions to respondents to prevent misleading results. Although previous research suggests that DCEs possess a high degree of external validity, the possibility of hypothetical bias still exists. To mitigate this possibility, the DCE questionnaire for the “Product of USA” study includes a series of statements that will instruct respondents to read the survey carefully and describes how not answering the questions truthfully can lead to misleading survey results that have real-world consequences. Statements like these, referred to as “cheap talk,” are a best practice in stated preference surveys and have been shown to reduce hypothetical bias in online DCE responses (Tonsor et al., 2011).

(3) The study design includes internal validity checks. In addition to including a “cheap talk” script to mitigate the potential of hypothetical bias, the study design includes a series of internal validity checks after the data are collected to ensure the data are credible. For example, the DCE questionnaire includes a choice question in which both meat products are identical

except one is less expensive than the other. If a respondent understands the choice task, they should obviously prefer the less expensive product. The greater the number of respondents who choose the less expensive option, the more confidence one has that the majority of respondents understood the questions being asked and provided well-considered answers. This is known as the dominant-option validation test (Johnson et al., 2019). Part B, Section 2 provides additional information on the internal validity tests used in the present study.

(4) The Agency will conduct additional analyses to explore the external validity of the DCE results. Although the study design takes measures to minimize hypothetical bias (i.e., including cheap talk) and to test the internal validity of survey responses, the possibility of bias influencing results still exists. To explore this possibility and obtain further external validity of our results, FSIS will conduct additional analyses using scanner data. For example, FSIS plans to use Label Insight and IRI retail scanner data to develop hedonic models that estimate the price premium of the “Product of USA” label claim on FSIS-regulated products, such as ground beef.

The National Agricultural Statistics Service (NASS) reviewed the information collection; several revisions were made in response to NASS’s comments. Additionally, USDA’s Economic Research Service (ERS) reviewed the information collection; several revisions were made in response to ERS’s comments. The comments are provided in Appendix G for the NASS comments and in Appendix H for the ERS comments.

In addition to conducting the cognitive interviews with eight respondents, we asked three individuals at RTI who were not involved in developing the instrument to complete the survey so we could estimate respondent burden. The length of time each individual took to complete the survey is provided below:

Individual 1: 19 minutes

Individual 2: 17 minutes

Individual 3: 19 minutes

These results corroborate our estimated burden of an average of 20 minutes per response.

### **A.9. Payments to Respondents**

Ipsos provides payments to KnowledgePanel participants as described below. Households without existing computers and Internet access that are invited to participate on the panel are provided a free tablet computer and Internet access in return for their participation. Households with existing computers and Internet access use their own equipment and Internet connection to complete surveys and receive points for completing a survey (1,000 points = \$1). Panelists can exchange their points for vouchers and gifts from a partner network. Panelists are enrolled into a points program that is analogous to a “frequent flyer” card; respondents are credited with sweepstakes entries or bonus points in proportion to their regular participation in surveys. (For the households provided an Internet device and connection, their incentive includes the hardware and Internet service in addition to the sweepstakes entries and bonus points.) All panelists selected for a survey (qualified or nonqualified/terminated in screening) earn sweepstakes entries if they complete the screening questions. For surveys more than 15 minutes in length or that require special tasks, qualified sample members who complete the survey receive bonus points. Panelists may elect to redeem their points for vouchers or gifts, checks, or raffle entries as they accrue them. For the proposed web-based survey/experiment, respondents will receive the equivalent of a \$5 incentive.

### **A.10. Assurance of Confidentiality**

Security of personally identifiable information (PII) will be assured by using independent contractors, RTI and Ipsos (as a subcontractor to RTI), to collect the information; by enacting

procedures to prevent unauthorized access to respondent data; and by preventing the public disclosure of the responses of individual participants.

Ipsos has a system of standard operating procedures in place for documenting all processes relating to maintaining confidentiality and privacy of panelists. Although Ipsos collects panel members' contact information for sample selection and panel maintenance, individually identifiable information is not shared with anyone, including RTI and FSIS. Contact information is stored separately from the survey data file and is not linked in any way to participant responses. More specifically, the following data are in three separate databases:

- panel member information
- survey link file (linkage between survey-specific respondent identifier and respondent ID)
- survey data

Ipsos stores all personally identifiable panelist records at its secure data center located near the parent company's corporate headquarters. All data transfers from personal computers (used for survey administration) to the main servers pass through a firewall. Ipsos never provides PII to any client or agency without the explicit and informed consent of panelists. Ipsos will not share personal information regarding panel members with any third party without the participant's permission unless it is required by law to protect their rights or to comply with judicial proceedings, court orders, or other legal processes.

All survey data records are stored separately from panelist information. Ipsos keeps survey data in a secured database that does not contain PII. The staff members in Ipsos's Panel Relations and Statistics departments who have access to the PII do not have access to the survey

response data. The secured database also contains field-specific permissions that restrict access by type of user to prevent unauthorized access.

Ipsos retains the survey response data in its secure database after the completion of each study. These data are retained for operational research, such as analyzing response rates, and for future analysis, statistical adjustments, or statistical surveys that would require resurveying research subjects as part of validation or longitudinal surveys.

Information regarding informed consent, including assurances of data security, will be provided on the first screen of the survey (see Appendix A for survey instrument). RTI's Institutional Review Board (IRB) reviewed and determined the study is exempt from IRB review (see Appendix D).

RTI and FSIS will not have access to panel members' personal information or any PII. No PII will be included in the data files delivered to the Agency. The web-based survey/experiment conducted by the subcontractor is considered a service; therefore, a Privacy Threshold Analysis and Privacy Impact Assessment are not required.

### **A.11. Justification for Questions of Sensitive Nature**

Respondents to the web-based survey/experiment will not be asked any questions that are personal or sensitive in nature.

### **A.12. Estimates of Respondent Burden**

The total estimated burden for the web-based experimental study is 1,814.6 hours (see Table A-1). The cost to all respondents for the proposed information collection is \$41,118.84 which includes a fringe benefit factor of 0.3 (1,814.6 x 1.03 x \$22.00 per hour) (the 2021 U.S. median hourly wage rate<sup>4</sup>).

#### **Table A-1. Estimated Annual Reporting Burden for the Web-Based Survey/Experiment**

<sup>4</sup> U.S. Department of Labor, Bureau of Labor Statistics. (May 2021). *Occupational employment and wage statistics*. [https://www.bls.gov/oes/current/oes\\_nat.htm](https://www.bls.gov/oes/current/oes_nat.htm)

Study Component	Sample Size	Responses					Nonresponses				Total Burden Hours
		Freq	Count	Freq X Count	Min/ Resp	Burden Hours	Count	Freq X Count	Min/ Resp	Burden Hours	
Cognitive Interviews											
Screener	8	1	8	8	8	1.1	0	0	0	0.0	1.1
Interview	8	1	8	8	60	8.0	0	0	0	0.0	8.0
Pilot Study											
Email invitation	83	1	30	30	2	1.0	53	53	2	1.8	2.8
Questionnaire	30	1	30	30	20	10.0	0	0	0	0.0	10.0
Full-Scale Study											
Email invitation	9,778	1	4,400	4,400	2	146.7	5,378	5,378	2	179.3	326.0
Questionnaire	4,400	1	4,400	4,400	20	1,466.7	0	0	0	0.0	1,466.7
Total Burden	9,873					1,633.5				181.1	1,814.6

**Table A-1. Estimated Annual Reporting Burden for the Web-Based Survey/Experiment**

For the cognitive interviews conducted in April 2022, eight individuals were screened to determine eligibility and completed the cognitive interview. The cognitive interviews lasted an average of 60 minutes. For the pilot study, it is expected that 83 panel members selected by Ipsos will receive email invitations and that 30 of the eligible panel members will subsequently complete the questionnaire. For the full-scale study, it is expected that 9,778 panel members selected by Ipsos will receive email invitations and that 4,400 of the eligible panel members will subsequently complete the questionnaire. The cooperation rates are based on Ipsos’s prior experience conducting surveys of similar length and complexity. The email invitation for the pilot study and the full-scale study is expected to take 2 minutes to read. The questionnaire is expected to take an average of 20 minutes to complete. The total estimated burden of the web-based survey/experiment is 1,814.6 hours.



### **A.13. Capital and Start-Up Costs and Subsequent Maintenance**

No capital, start-up, operating, or maintenance costs are associated with this information collection.

### **A.14. Annual Cost to Federal Government**

The estimated total cost to the federal government for this information collection is \$578,816. The costs arise from the time spent by the contractor to develop the study design and materials, collect the data, analyze the data, and prepare and deliver a final report.

### **A.15. Reasons for Changes in Burden**

This is a new information collection.

### **A.16. Tabulation, Analysis, and Publication**

Table A-2 shows the planned schedule for the information collection. Once OMB approval is received, RTI will begin the data collection activities for the web-based survey/experiment. RTI will provide FSIS a report that summarizes the study methods and results within 160 days following OMB approval. RTI will use appropriate statistical analyses to analyze the survey and experimental data as described in Part B, Section B.2.

**Table A-2. Project Schedule**

<b>Date</b>	<b>Activity</b>
Within 14 days following OMB approval	Begin pilot study
Within 50 days following OMB approval	Begin data collection for web-based survey/experiment
Within 160 days following OMB approval	Complete report on web-based survey/experiment

Dissemination of the study results may include internal briefings, presentations, and reports and posting on FSIS's website.

## **A.17. OMB Approval Number Display**

The OMB approval and expiration date will be displayed on all materials associated with the study. No exemption is requested.

## **A.18. Exceptions to the Certification**

There are no exceptions to the certification.

## **References**

- Chang, J. B., Lusk, J. L., & Norwood, F. B. (2009). How closely do hypothetical surveys and laboratory experiments predict field behavior? *American Journal of Agricultural Economics*, 9(2), 518–534.
- Exec. Order No. 12,866, 58 Fed. Reg. 51,735 (1993). <https://www.archives.gov/files/federal-register/executive-orders/pdf/12866.pdf>
- Johnson, F. R., Yang, J. C., & Reed, S. D. (2019). The internal validity of discrete choice experiment data: a testing tool for quantitative assessments. *Value in Health*, 22(2), 157–160.
- Loureiro, M. L., & Umberger, W. J. (2007). A choice experiment model for beef: What US consumer responses tell us about relative preferences for food safety, country-of-origin labeling and traceability. *Food Policy*, 32(4), 496–514.  
<https://www.sciencedirect.com/science/article/pii/S030691920600114X>
- Lusk, J. L., & Schroeder, T. C. (2004). Are choice experiments incentive compatible? A test with quality differentiated beef steaks. *American Journal of Agricultural Economics*, 86(2), 467–482.
- RTI International. (2015, August). *2014 FDA Labeling Cost Model*. Prepared by Muth, M. K., Bradley, S., Brophy, J., Capogrossi, K., Coglaiti, M. C., & Karns, S. A. Contract No. HHSF-223-2011-10005B, Task Order 20.

Tonsor, G., & Shupp, R. S. (2011). Cheap talk scripts and online choice experiments: looking beyond the mean. *American Journal of Agricultural Economics*, 93(4), 1015–1031.

Umberger, W. J. (2010). *Country of origin labeling (CoOL): A review of the relevant literature on consumer preferences, understanding, use and willingness-to-pay for CoOL of food and meat*. <https://www.foodstandards.gov.au/code/proposals/documents/P1011%20CoOL%20AR%20SD2%20Lit%20Review.pdf>