Hunters’ Perspectives on Animal Welfare and Meat Demand: 
An Application of Maximum Difference and Choice Experiment Methods

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INTRODUCTION

Consumers are increasingly concerned about how their food is produced. This concern extends to animal welfare (AW) practices and the social and environmental impacts of livestock production. Previous research has focused on:

- consumer willingness to pay (WTP) for animal welfare related production process attributes of food animal production,
- linking pet ownership to increased concern for livestock welfare, specifically pigs (McKenzie, Cronney, and Widmar, 2014),
- public acceptance of ethical management of wildlife and feral animals.

Relationships with animals, even those not raised for human consumption, can affect consumers’ concern for farm animal welfare. We seek to explore how:

- views of animals, both consumptive and non-consumptive, may influence demand for livestock AW attributes;
- outdoor enthusiasts’ underlying value systems inform meat purchasing decisions and WTP for AW attributes in pork chops and chicken breasts.

The population of hunters is substantial and the perceptions of hunters with regard to livestock AW are largely understudied. It has been found that farmers are less concerned about AW (Te Velde, Aarts, and Wan Woerkom, 2002) and may also have significantly different perceptions from those of consumptive wildlife managers (Tonsor, Wolf, and McKenzie, 2014).

Thus, the perceptions of hunters with regard to livestock treatment and meat production are the main focus of this analysis. Further, the paper will determine if individual-specific meat attribute preference shares and WTP estimates are positively correlated.

RESULTs AND DISCUSSION

Maximum Difference Results

Safety and taste were the most important attributes to outdoor enthusiasts from the best-worst experiment. Women, pet owners, and members of AW organizations were found to have a statistically higher preference share devoted to AW. Those who approved of hunting for food, regardless of their participation in hunting, had a lower preference share for AW as did those who have hunted in the past 10 years.

Attribute Non-Attendance (ANA)

WTP estimates for either pork chops or chicken breasts were not statistically different when inferred ANA was accounted for. Likewise, information on stated ANA was also collected and it was shown that accounting for stated ANA had no statistically significant effect on WTP estimates for either pork chops or chicken breasts. Those who passed the validation question had statistically significant and higher WTP for some attributes of pork chops and chicken breasts. The WTP estimates were not statistically different when passing the validation question was interacted with other inferred or stated ANA.

Safety and Taste were the most important attributes to outdoor enthusiasts when making meat purchasing decisions.

These respondents who have a higher preference share devoted to AW were generally willing to pay more for AW attributes in the choice experiment.

CONCLUSIONS

Respondents were presented with a choice experiment using a modified maximum difference scaling to assess preferences for AW value attributes associated with meat purchasing. The survey instrument also contained a simple validation question, to determine careless survey takers, and a question asking respondents which choice experiment attributes they ignored, or the respondents’ stated attribute non-attendance (ANA). To account for ANA, the method proposed by Hess and Hensher (2005) and employed by Widmar and Ortega (2014) utilizing the coefficient of variation (ratio of the standard deviation to the mean) calculated from individual-specific parameter estimates to infer which attributes have not been attended to is employed. Analysis is conducted to determine whether statistically significant differences in mean WTP exist based on passing or failing the validation question, and whether passing/failing the validation question and stated (and inferred) ANA yields statistically significant differences in WTP estimates.

REFERENCES


MAXIMUM DIFFERENCE METHODS

CHOICE EXPERIMENT METHODS

DATA

An online survey of 872 outdoor enthusiasts (self-reporting as regularly hunting, fishing, or participating in other outdoor activities) was conducted in May 2014 to obtain data regarding their activities, social demographic characteristics, and attitudes toward animal welfare and food safety of both domestic and wild animal species and meat purchasing habits.

Respondents were asked whether they regularly participated in fishing, hunting, or another outdoor activity such as hiking or camping (they were permitted to choose more than one activity).

In order to participate in the survey, respondents had to indicate they were 18 or older.

Respondent Summary Statistics

Gender: 50% Male
Average Age: 47 years
Mean HH Income: $59,495
Mean HH Size: 2.62
Graduated High School: 99%
Households with either Cat or Dog: 70%

Regular Participation in Outdoor Activities

Regularly Fish: 63%
Regularly Hunt: 27%
Regularly Camp/Hike: 79%
Hunter Status
Have Ever Hunted: 52%
Have Hunted in Past 5 years: 30%

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