

PhD Dissertation
Department of Environmental Science and Policy
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Title: Antibiotic Usage in Poultry and Eggs: Perception of Risk and Willingness to Pay for Alternatives

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ABSTRACT

In recent years, many U.S. poultry and egg producers and retail food establishments have focused production and marketing on antibiotic-free versions of their products (ex. Perdue Farms Inc., Panera Bread, Chipotle Mexican Grill). This shift has been attributed, colloquially and in literature, to widespread concern that the use of antibiotics in livestock poses risks to human health. But how well do consumers understand this risk? Is it the only risk? And, does risk perception affect purchasing habits? This study examines consumers' perception of risk regarding the use of antibiotics in chicken and eggs and whether that risk perception has explanatory power on the decision to buy products bearing the "Raised Without Antibiotics" label.

The research method was a national online survey which collected consumer (respondent) characteristics and included a discrete choice experiment where those respondents indicated their preferences for chicken and egg products bearing credence labels like "Raised Without Antibiotics". The data was incorporated into a Mixed Logit model to estimate the utility derived from the labels, effects from the respondent characteristics, and willingness to pay for labeled products. The results revealed that consumers did indeed derive significant utility from the labels, with "Raised Without Antibiotics" having the highest coefficient for both chicken and egg products. Some respondents did perceive risk related to antibiotic usage, but that risk perception did not exert a significant effect on their buying behavior. Some demographic characteristics also appeared to exert abnormal effects, such as educational level, which was associated with inverse label utility in some cases.