Consumers Willingness-to-Pay for Organic Apples

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Introduction

- Total organic food sales have grown 20% annually (Organic Trade Association, 2006).
- Demand for organic food exceeds supply despite:
  - Increase in United States and Washington States certified acreage and supply
  - Increase in foreign imports of organic food
- Organic food premiums remain at both the farm gate and retail levels.

Methodology

- We utilize a combination of revealed preference and stated preference mechanisms to elicit and model WTP.
  - WTP defined as: the maximum amount a consumer is willing to pay at that time, on that given day
  - Accurate WTP estimates will help the organic sector develop: 1) marketing and management strategies, 2) Production adoption or improvement
- The dependent variable is individual consumer's (WTP) bid on organic apples. Two sets of variables are used to explain the variation in bids:
  - Participant attributes including shopping habits, consumers' attitudes, and socio-demographics
  - Design variables denoted by y, and interaction between design variables and individual attributes: zi.

Model

- The econometric model for participant's WTP for apples is specified as follows:
  \[ WTP = \beta_0 + \beta_1 y + \beta_2 z + \epsilon \]
- The interaction between (knowledge of) compensation and belief that organics taste better than conventional was negative and significant, suggesting that taste had positive impact on all participants' WTP, but the impact was greater for uncompensated individuals.

Results

- Consumers were WTP more for organic apples if they:
  - Believe that organic apples taste better and are more environmentally friendly
  - Were in either of the two oldest age classification, with those 55 years old and above bidding significantly less than the other age classes.
  - Were in education levels edu3 (some college), edu4 (Associate degree), and edu6 (graduate or professional degree), in which case their WTP was lower than HS graduates.

Conclusions

- An in-store auction experiment was used to assess consumer’s WTP for organically produced apples.
- The compensation used to entice shoppers to participate in experiment led individuals to reveal higher WTP.
- WTP for organic apples tended to decrease with education, and decrease for individuals over age 55.