

# Price Premiums for Organic Food: The Education Effect

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## Abstract

Australian consumers (N=221) were surveyed to establish their valuations of food, based on country of origin, organic status and eco-labelling. The effect of consumer education level on the valuation of *Organic* and *Certified Organic* food is reported. Respondents who reported completing secondary or tertiary education had a similar response style, valuing *Certified Organic* at approximately twice the premium of *Organic*. The secondary education group valued *Organic* at a premium of 6.2%, and *Certified Organic* at a premium of 12.9%. The tertiary education group valued *Organic* at a premium 9.5%, and *Certified Organic* at premium of 17.9%, (i.e. approximately 50% higher than the secondary education group). Respondents who had completed only primary school, attributed no premium to either *Organic* or *Certified Organic*.

**Keywords:** certified organic, price premium, food labels, education level, primary, secondary, tertiary.

## Introduction

What is the effect of the level of education on the value of organic food? A prerequisite for purchasing something is to value it. To pay a price premium for an organic product requires the prospective purchaser to value the organic attribution. Previous reports have profiled organic consumers as better educated than non-organic consumers (Lockie & Donaghy, 2004; Schneider, 2005), although why this might be the case has not been identified.

The present study asked respondents to value various food scenarios, and reported here are the valuations of *Organic* and *Certified Organic*, based on the respondent's attained education level.

## Methodology

This study examined three food labelling variables, each at three levels. Using a factorial design this generates  $3 \times 3 \times 3 = 27$  treatments or food scenarios. The variables were provenance (China, Australia, Tasmania), organic status (*null*, *Organic*, *Certified Organic*) and eco-labelling (null, Natural, Eco). Each subject put a value, in each case in the range \$5.00 to \$10.00, stepped in 25 cent increments, on each of the 27 generic food scenarios, and answered eight demographic questions, and additionally there was an optional comments box. The instrument was presented on the World

Wide Web. Subjects were recruited via a press release, issued by the Media Office of the University of Tasmania, to Australian media, mostly newspapers, giving readers a web address, and inviting them to respond to a “survey about food labelling”; there was no mention of organics in the press release (e.g. Quick News, The Mercury, 2006).

## Results

221 respondents completed the survey, and the analysis reported here is based on N = 221. The demographics of the sample are as follows: 75% of respondents were female, 47% were aged 40 or under, 42% reported below average income, 96% were from Australia, 78% were the main food shopper in their household, 3% were affiliated with the organic industry, and 5% reported they never purchased organic food. For the education question, 159 (71.9%) completed tertiary education, 50 (22.6%) completed secondary education and 12 (5.5%) completed primary school. The average time to complete the survey was 6 minutes.

There is a statistically significant main effect of increasing valuations on the organic treatment variable, from *null* to *Organic* to *Certified Organic* ( $F(2,219) = 178.161$ ,  $p < 0.001$ ). Organic attracted a premium of 8.1%, and Certified Organic attracted a 15.6% premium. This indicates that half of the premium attributed to *Certified Organic* is due to “*Organic*” and half is due to “*Certified*”. In Australia, and many other jurisdictions, food producers can self-declare their produce as *Organic*, whereas *Certified Organic* universally implies there is a third party certifier. This result indicates that half of the premium value can be attributed to the certification.

Fig. 1

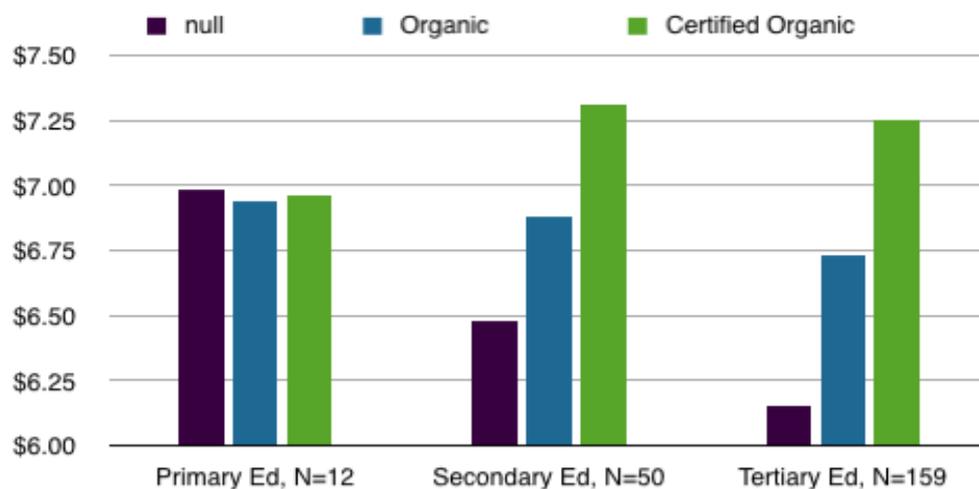


Figure 1: Organic x Education, mean values (N=221). The primary education group did not discriminate between null, Organic and Certified Organic.

There was a significant interaction between the organic treatment variable and education level ( $F(4,436)=7.674$ ,  $p<0.001$ ). There was no significant two way interaction between the organic treatment variable and gender, or between the organic treatment variable and income. The main organic treatment effect, of increasing valuations from *null* to *Organic* to *Certified Organic* did not hold for the primary education group (Figure 1).

The education level of respondents was a significant determinant of the value placed on organic produce. Those who had completed secondary or tertiary education attributed a premium value to *Organic* (6.2% and 9.5% respectively), and twice that premium to *Certified Organic* (12.9% and 17.9% respectively). The primary education group however did not attribute a value premium to either *Organic* or *Certified Organic* (Figure 2).

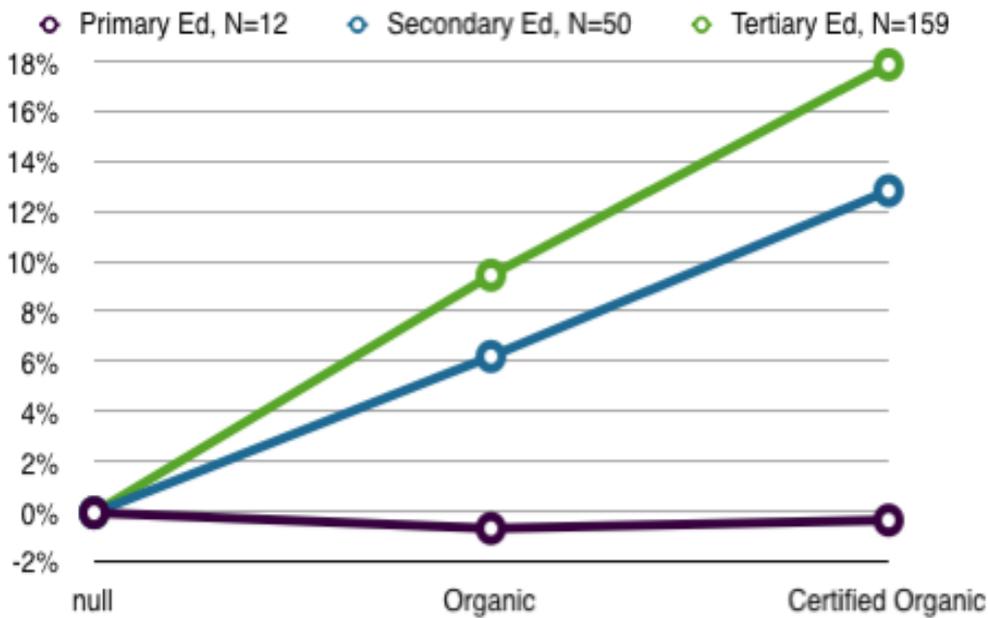


Figure 2: Organic x Education, percentage increments. The Primary Education group does not attribute a premium to Organic or Certified Organic.

## Discussion & Conclusions

It has previously been reported that the profile of organic consumers is those with a greater education. The result reported here that the lower educated group places no value on organic labelling has not previously been reported. This result goes a long way to explaining why this group is unlikely to be high level consumers of organic food. Organic and non-organic food are visually indistinguishable, and, as a consequence, the premium valuation by consumers of organic produce is a prerequisite, a precondition, for consumers paying a premium price.

Price premiums for *Certified Organic* reward farmers for the additional care taken, and reimburse the costs of the certification process, and some, including Giovannucci (2005), regard premiums as essential. Retail price premiums for organic food have been reported in Australia for a variety of food items as ranging from -12% to +633% and averaging 80% (Halpin, 2004).

What the present study does not resolve is, why the primary education group places no premium value on organics. Is it a case of “don’t know” or “don’t care”? This question warrants further investigation since how organics might be marketed to this demographic hinges on the answer. Is it that the lower education group does not understand the organic points of difference, or is it that they do understand the difference but “don’t care”? The result does suggest that the valuing of “organic” may be achieved after primary school.

The British Heart Foundation reported that 36% of school children did not know the main ingredient of chips was potato, and 37% were unaware that cheese is made from milk (Homeyard, 2005), and while 99% could use a DVD player, only 58% could use a vegetable peeler and 43% could boil an egg (Slattery, 2006). This indicates an opportunity for increasing the awareness of food within schools.

The German supermarket ALDI, new to Australia, have adopted the strategy of defining organic on all the labels of their broadening range of organic food. They have developed their own organic brand “Just Organic”, and, prominently on the front label of each product, define organic as “grown as nature intended with no chemicals or additives, altogether a better way to eat”. Similarly, Organic Wholesalers supply their own produce bags to supermarkets with each bag posing two questions “What does organic mean?” and “Why should I buy organic?” and then answering these questions, each in four dot points. These commendable education strategies serve two purposes, firstly to educate non-organic consumers who are inquisitive enough to read them, and secondly, to reinforce the choice for organics consumers.

One of the four principles of organic agriculture is *the principle of care* (IFOAM, 2005). For producers who have taken this additional care required to produce organic food, it makes sense to proclaim this unequivocally on the product labelling, and not just rely on a certifier logo and number perhaps tucked away in the corner of a rear label.

The present study reports a clear effect: higher education means higher values attributed to organic produce. This study indicates that it is a mistake to assume that consumers already appreciate the organic difference, and that they simply make their purchase decisions based on price, availability and other issues. It establishes that there is a group of consumers who place a zero value on organic labelling. Until they attribute a value premium to organic produce, it is a vain hope that they will pay a price premium for organics.

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