0.0.1 Appendix A: Additional Institutional Information

Third-Party Certification

In 2006, Whole Foods Market created the Animal Compassion Fund, a non-profit organization that developed a strict code of animal husbandry standards. The intent of the organization is to act as a third-party certifier for farms that want their products to carry the "Animal Compassion" label. The company has since enacted strict standards similar to those outlined in the label. In 2008, Humane Farm Animal Care, a national non-profit organization dedicated to the humane treatment of animals raised for human consumption, released 40 pages of guidelines defining humane treatment of broiler chickens. The USDA has mentioned demand for a similar labeling program, but because the Humane Farm Animal Care guidelines are better developed, we will use this "charitable organization" approach, rather than a legislation/tax model, to motivate our study (see http://www.certifiedhumane.org/).

0.0.2 Appendix B: Survey Design and Development; Data

Choice Set Design

In our survey, respondents were presented with six choice scenarios in which they were asked to consider whether to purchase a given quantity and type of meat as though they were on a typical food shopping trip. In this paper, we concentrate on the first and second choice scenarios, which concern opportunities to purchase a package of chicken breasts. Figure 1 in the paper illustrates one randomized instance of the survey questions concerning chicken purchases.[1]

Choice Set Template

Our survey used MS Word's "mailmerge" utility to generate unique versions of the survey, one hundred versions at a time. Choice sets like the one in Figure 1 in the paper used the variables in an Excel spreadsheet to fill the fields in the survey template. Thus the introduction to the choice set, and the choice table, read as follows:

Suppose you have come to your usual food store. You are considering whether to buy a «wt1»-pound package of chicken breasts. The store offers three brands of chicken breasts that look the same. The color, size and fat content of each brand are very similar. The only visible difference is that one brand is marked "«labela1»," one brand is marked "«labelb1»," and the third brand is marked "«labelc1»." The prices are also different.

Keeping in mind your household budget, which would you choose? (check ONE)

	A	B	C	None
Type	«labela1»	«labelb1»	«labelc1»	
Package size	«wt1» lbs	«wt1» lbs	«wt1» lbs	
Price	$ «dupa1»/lb	$ «dupb1»/lb	$«dupc1»/lb	
Total cost	$«dtpa1»	$ «dtpb1»	$ «dtpc1»	$ 0
I prefer:	☐	☐	☐	☐

We were careful to randomize, across respondents, the order in which we presented the three types of products. In half of the surveys, the order was "Conventional, Free-Range, Humane and None." In the other half, it was "Humane, Free-Range, Conventional and None." In pre-tests it did not seem natural ever to list "None" as the first option, or to place "Conventional" in the middle.

Table B-1 contains additional information about the randomized design of the survey, showing the marginal distributions of total and per-unit prices for each product used in our choice scenarios, as well as the package weights. While the quantities of meat were kept constant within any single choice set, they were varied randomly across choice sets at half-pound intervals ranging from 1.5 to 3.0 pounds. We worried that the WTP premium for the humanely raised product might be per package, rather than per pound, but this turned out not to be the case.

[1] The third and fourth choice scenarios consider top-sirloin beef and ground beef, respectively. In all scenarios, respondents were also given the option to choose "none." The fifth and sixth choice scenarios asked respondents to choose one of six types of meat, either chicken raised in one of the three manners or top-sirloin beef raised in one of the three manners and then again for chicken versus ground beef.

For each choice, the per-pound base price of conventional meat was varied randomly among eight possible values, as was the price premium for the free-range and the humanely raised products (again, among eight possible values for each). For each scenario, the premium on the humanely raised product was always higher than that of the free-range product. This strategy guards against strict dominance in the choice set, since the standards for humanely raised products were described as being much more stringent than for free-range products.[2]

Optimal Design

Our survey instrument was developed with a very short lead time during the winter quarter of 2006. Since that time, a number of papers have emerged to help researchers develop more efficient designs for conjoint choice sets. A variety of criteria have been explained and advocated, some of which rely upon the researcher's priors (or preliminary pre-test results) for the key parameters of the choice model. One such criterion is D-optimality, where the mix of attributes in the choice sets is designed to minimize the determinant of the variance-covariance matrix of the parameter estimates, conditional on an assumption about which model will be estimated. Some newer research directed at improving estimation efficiency through choice set design (which was not published as of the time our survey was being put together) includes Hensher (2006a), Hensher (2006b), Ferrini and Scarpa (2007), Toubia and Hauser (2007), Scarpa et al. (2007), Scarpa and Rose (2008), Street and Burgess (2008), Rose and Bliemer (2009), Bliemer et al. (2009), Li and Wang (2009), Johnson et al. (2010), and Goos et al. (2010). Of course, were we to repeat a survey of this type with more lead time for survey development, we would certainly exploit to the extent possible the insights in these papers as well as those in earlier papers by Kanninen (2002), Carlsson and Martinsson (2003), Burgess and Street (2005), Caussade et al. (2005), and Sandor and Wedel (2005).

As noted by Rose and Bliemer (2009), however, simple orthogonal designs such as the one used in this study have been traditional for practitioners. Many researchers now try to exploit the fact that so-called "efficient" designs are able to produce greater precision in parameter estimates with smaller sample sizes. Some estimation efficiency has undoubtedly been sacrificed by our reliance on an orthogonal design, but little if any bias is expected as a result. Fortunately, we are able to discern many interesting and statistically significant effects even with our simple orthogonal design and relatively small sample.

By building random combinations for the prices of the three products in each of our choice scenarios, we also missed out on a possible opportunity to used formally blocked designs that would have allowed us to have the same consumer face the same choice set on more than one occasion, or to have different consumers fact the same choice set on multiple occasions. When choice sets are designed with such repetitions, there can be an opportunity to look for evidence of choice consistency. However, we did not anticipate having enough respondents to make this sort of test-retest analysis very informative, so we opted for simple random draws.

[2]The right to left orderings of the types of products (either conventional/free-range/humanely raised or humanely raised/free-range/conventional) were also randomized across respondents.

Survey Development

Our initial drafts of our survey instrument were tested over time on sixteen different individuals and revised extensively before being fielded to a test sample of 50 general-population respondents (42 of whom completed the questionnaire). Changes made following this preliminary analysis included:

1. Random variation of package sizes, rather than only presenting one pound packages of each type.

2. A question asking the price the respondent currently pays for conventional chicken was expanded to include free-range chicken and conventional and free-range steak and ground beef to increase our ability to incorporate revealed preferences.

3. The first 50 surveys asked respondents if they thought the prices were realistic, too high or too low. The results of from this question led us to decrease the baseline price range of chicken and the question was eliminated thereafter.

4. Wording changes were also made in the introductory sections in an attempt to decrease the perception of researcher bias in favor of the humanely raised certification program.

The revised survey was then fielded to a second test sample of 50 respondents. These results were pooled with the results from the first pre-test and subjected to preliminary econometric analysis. These first two pre-tests framed the product choice in each Choice Scenario as essentially a "forced choice" by asking respondents to assume that they had come to their usual food store "to buy 1.5 pounds of chicken breasts." This phrasing in the instructions appeared to create unexpectedly large disutility if the individual selected the "none" alternative. For example, the indirect utility from paying the price of at least one brand of chicken would have to be low enough to exceed the disappointment of having to leave this store empty-handed. The revised wording of the survey states only that the individual should assume that they have come to their usual food store and that they "are considering whether to buy 1.5 pounds of chicken breasts." Since the purchase in question is no longer being described as the purpose of the shopping trip, we anticipate that it should produce less disutility associated with the "none" alternative. This utility is the negative of the "lump" of utility associated with at least one of the products being purchased, independent of its attributes. We are interested in the marginal utilities of income and of each type of meat, not the total utility of a choice, which would include any disembodied utility associated with merely "some purchase" versus "no purchase." Evidence of any such disembodied lump of utility is no longer present in the estimating sample.

Final Version

The final version of the survey also explores two possible levels of information provision. The earlier pre-test surveys described the criteria for "humanely raised" certification in great detail. A side-effect of this level of detail is that consumers may become alarmed at learning (or imputing) that these possible types of mistreatment of animals are followed in all conventional farming operations. In the final survey, we are careful to debrief individuals about the extent to which they think this certification will merely confirm the good practices of some proportion of conventional farms. The more they think the humanely raised certification is superfluous, the less likely they are to be willing

to pay a premium for meats with this certification.

Often, products labeled "free-range" are also certified organic and/or hormone-free. However, the label considered by this study targets animal welfare concerns only, and does not necessarily describe how pesticides, hormones or antibiotics are used in raising animals. This was also clarified in the final version of our survey instrument.

Sample Representativeness

The jury pool for a county courthouse represents perhaps the least-cost opportunity for bringing potential respondents from a wide variety of backgrounds to a central location where they must spend a lot of time waiting and may have nothing else to do. Portions of the county in question are relatively liberal, especially in the community where our university is located (which is home to 43% of the county's population). However, the adjacent community, which combines with the first to make up a larger metropolitan area, is considerably more conservative.

Table B-2 provides detailed descriptions of the variables we use in this paper to explain consumer preferences. To help assess the representativeness of our survey sample, Table B-3 compares some relevant characteristics of our survey respondents to the characteristics of the county, the state and the U.S. as a whole.

Table B-1: Randomized Design for Prices and weights*

Meat	Type	Obs	Mean	Std. Dev.	Min	Max
chicken	- conventional	480	$ 2.63	$ 0.48	$ 1.79	$ 3.49
	- free-range	480	3.20	0.71	1.84	5.19
	- humanely raised	480	3.85	0.88	1.94	6.09
weight		1440	2.24 lbs	0.57 lbs	1.50 lbs	3.00 lbs

*For the full set of choices and all available responses.

Table B-2: Descriptions of Variables

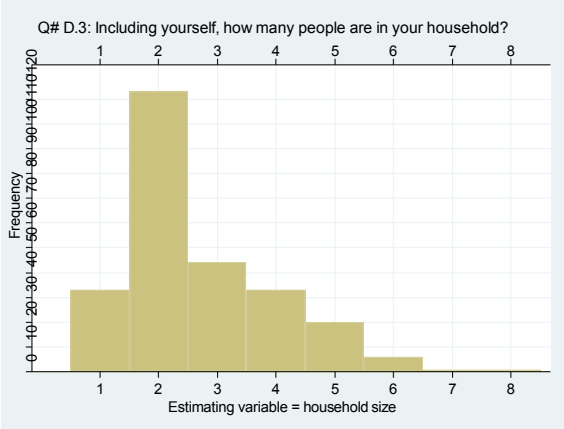
Variable name	**Brief description of survey question wording**
total price	Total price of package purchase (=$/pound x pounds)
pounds	package weight; constant across alternatives within a choice scenario; differs across choice scenarios. Can assume values of 0, 1.5, 2.0, 2.5, 3.0.
1(female)	=1 if respondent is female
household size	Number of people in household, including the respondent.
1(college grad)	=1 if respondent has attained at least a bachelor's degree
conservatism	Subjective conservatism rating "In terms of politics, how do do you consider yourself?" Options range from 1 = "Extremely liberal" to 4 = "Moderate" to 7 = "Extremely conservative"
H.healthiness	"Do you think humanely raised meats might be more or less healthy for people to eat than conventional meats?" Options range from 1 = "Much less healthy than conventional meats" to 4 = "Equally healthy" to 7 = "Much more healthy than conventional meats."
H. improves wellbeing	"How much do you think these [humanely raised] requirements would actually improve the well-being of livestock and poultry raised on certified farms?" Options range from 1 = "Not at all" to 7 = "A lot"
antibiotic concerns	"In choosing among different brands of chicken breasts, to what extent were you thinking about antibiotics, growth hormones, or genetic engineering and how these might affect chicken products?" Options range from 1 = "Not at all" to 7 = "A lot"

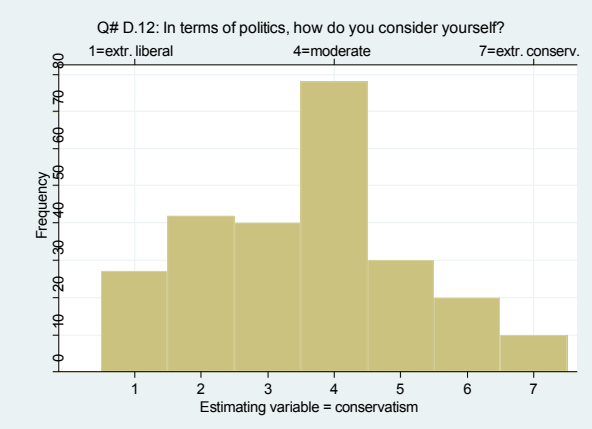
Table B-3: Descriptive Statistics for Survey Sample and Actual Population (Census year 2000)

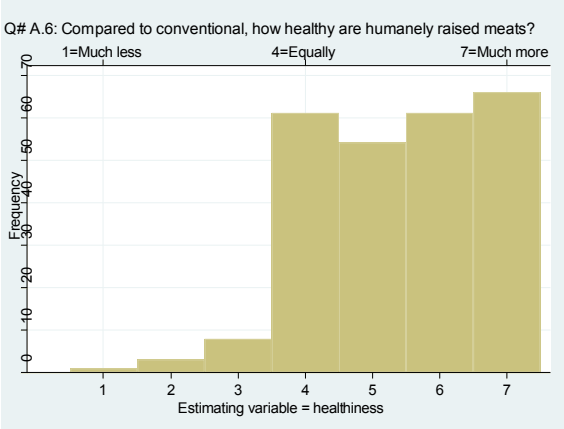
	Survey Sample	**Lane County**[a]	**Oregon**[a]	**United States**[a]
2005 Population (Estimate)		335,180	3,641,056	296,410,404
Sample size	240			
Female	65.2%	50.8 %	50.4 %	50.9 %
Racial distribution				
White alone or in combination	95.5%	93.7 %	89.3%	77.1%
Black alone or in combination	0.5%	1.3 %	2.1 %	12.9%
Asian alone or in combination	1.1%	2.8 %	3.7 %	4.2 %
Ethnicity -Hispanic or Latino	2.7%	4.6 %	8.0 %	12.5%
Age distribution (for 20 and above)				
20 to 24 years	8.8 %	11.6%	9.3%	9.4
25 to 34 years	18.1	17.7	19.0	19.9
35 to 44 years	17.1	19.7	21.3	22.5
45 to 54 years	20.2	20.8	20.5	18.8
55 to 59 years	14.2	7.0	7.0	6.7
60 to 64 years	10.4	5.3	5.3	5.4
65 to 74 years	9.2	8.9	8.9	9.2
75 to 84 years	0.0	6.8	6.5	6.2
85 years and over	0.0	2.3	2.3	2.1
Household income distribution				
<$10,000	5.0 %	11%	8.6 %	9.5 %
$10,000-$14,999	5.0	7.3	6.5	6.3
$15,000-$24,999	12.3	14.6	13.4	12.8
$25,000-$49,999	27.9	32.5	31.6	29.3
$50,000-$99,999	37.5	26.7	29.9	29.7
$100,000-$149,999	6.7	5.0	6.5	7.7
$150,000 - $199,999	2.1	1.3	1.7	2.2
$200,000+	2.1	1.5	1.8	2.4
Education, persons 25 and older				
Less than high-school	1.3%	12.5%	14.9%	19.6
High-school graduate	10.2	25.9	26.3	28.6
Some college, no degree	47.9	28.8	27.1	21.0
Associate degree	7.5	7.3	6.6	6.3
Bachelors degree	22.9	15.6	16.4	15.5
Graduate or prof. degree	17.3	9.9	8.7	8.9

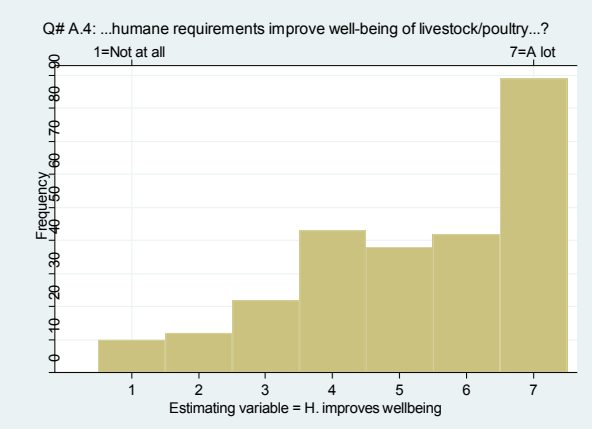
[a]Source: www.census.gov

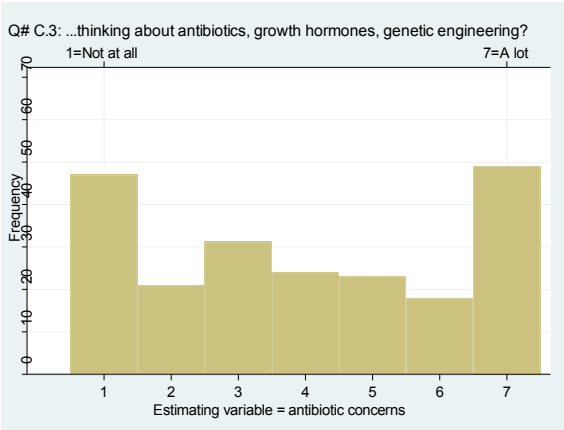
Figure B-1: Histograms for Household Size and Ratings Variables

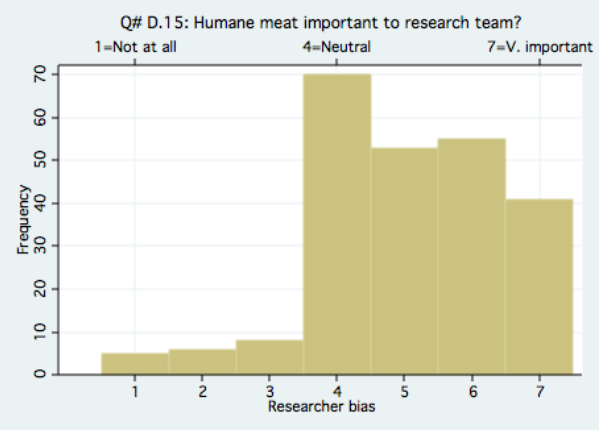












0.0.3 Appendix C: Issues in Modeling; Alternative Specifications

Perceptions of Researcher Bias

Our survey instrument asked respondents to rate their perception of the researchers' bias for or against the program so any perceived attempt by the research team to influence WTP from this quarter could also be controlled for. This question was worded as "Think about the way the information in this survey was presented. How important do you think it is to this research team for people to buy humanely raised meat products?" Figure B-1 in Appendix B shows that the modal perception was one of researcher neutrality. However, non-neutral perceptions were mostly that the research team favored the purchase of humanely raised products. (It could be argued, of course, that if we did not think that humane standards were a good thing, why were were studying the demand for such products?) If respondents perceive bias on the part of the research team, they may have two different responses. Some individuals will be induced to "go along" with this attitude and will choose what they believe the researcher team thinks they should choose. Other individuals may unconsciously attempt to compensate for researcher bias by choosing the opposite. We have no way of knowing which of these tendencies is present, or to what extent, but at least this rating variable, turned out to have no statistically discernible effects on any of the marginal utilities estimated in our models.

Ordinary Status Quo Bias

Another consideration concerning the structural model for utility concerns whether to include a "status quo" dummy variable in our specifications. When used, the estimated marginal utility associated with it conveys the net utility difference between buying no product and buying at least some product, independent of the price, quantity, or other features of the products included in the choice scenario. Sometimes, out of a desire to appear cooperative, respondents sometimes feel compelled to select at least one of the "products" presented to them. In other cases, they may object to something about the choice exercise, independent of the attributes of the alternative products, and may choose the "no purchase" option as a vote of protest. We are specifically interested in how differences in net income and differences in product attributes affect choices. The key tradeoffs can be identified, perhaps more accurately, if these other confounding effects have been controlled-for, at least implicitly, via a status quo dummy variable. We explored the use of a simple "no purchase" alternative-specific constant in our models, but it turns out to have no statistically significant effect on the utility index.

Mixed Logit Estmation

Our main specification is a conditional logit, which constrains each individual in the sample to have the same preferences, other than the systematic variation according to the individual characteristics and attitudes that we control for in our model. Since we observe two choices per person, it is reasonable to consider whether there may be unobserved heterogeneity across individuals that we do not capture with our specification.

We have explored estimates from a selection of alternative mixed logit specifications. These models reveal that after we control for the observed heterogeneity in our preferred specification in Table 3, there is little remaining random variation in the key coefficients in our model (i.e. the δ_F and δ_H coefficients) which capture the WTP premiums for free-range and humanely raised products. There is, however, some evidence of residual heterogeneity in the base coefficient for the conventional product.

The heterogeneity in the baseline coefficient for conventional chicken, β_C, suggests that there are still some unobserved factors not included in our model that differentiate the baseline marginal utility for a pound of chicken across individuals. Since we are primarily concerned with the per-pound premiums for free-range and humanely raised chicken, however, and since there appears to be no unobserved heterogeneity left after controlling for observed characteristics for those two coefficients, the unobserved heterogeneity on the conventional baseline premium is of less concern in this context.

Error Component Model

In our preferred specification in the paper, utilities from the no purchase alternative and the three purchase-related alternatives in each choice set are assumed to share a common error variance. However, Scarpa et al. (2005) suggest that since the error associated with the no purchase option could be fundamentally different, it may be beneficial to allow for two different error distributions by allowing the no-purchase option to have a separate (probably smaller) error variance compared to the error variance for the three purchase options.

The research of Scarpa et al. (2005) suggests that the stochastic portion of the no purchase option may be different than the error term associated with purchasing the different types of meat. When a status quo option is present in a survey, there are two kinds of effects. The systematic effect, which we determined was statistically insignificant, and the effect on the error term. Examination of Table C-1 shows that there is a statistically significant difference in the variance of the error terms between the status quo effect and the different purchase options. While this error difference appears to affect the baseline coefficient values for both conventionally raised chicken (by 10%) and the premium on humanely raised chicken (by 3%), it does not substantively alter the results for the coefficients on those variables which shift the baseline premiums. The shifter premiums associated with humanely raised chicken become somewhat more significant. Thus, we opt to feature the simpler model in Table 3 in the paper.

Other Specification Issues

In the main text of the paper, we briefly mention some of the variables which we expected might matter to people's choices, but which *do not* seem to have discernible effects (based on a large number of exploratory specifications that we do not report here). Although one might expect that humane treatment of farm animals might be a normal good, it proved very difficult to detect any role for household income in explaining choices among these products. The specification reported in Table 3 has been generalized with linear and quadratic forms in family income as a proxy for socioeconomic status, individually and simultaneously. Family income is thus treated as a factor that

might shift the marginal utility of net income, the marginal utility per pound of the conventional product, and the marginal utility differentials for the free-range and humanely raised products. The flexibility afforded by up to six of these additional parameters yielded one very marginally significant coefficient (on the quadratic-in-income term as a shifter of the humanely raised premium). However, this is not a robust result, so we leave family income out of the specification.

There is always a question as to whether an independent and additive "brand" effect (i.e. a simple indicator for the conventional, free-range, or humanely raised product) might matter to utility levels, independent of any other attributes of each product. We have included alternative-specific constants for each of the non-status-quo alternatives, but we find that there is no statistically significant separate linear-additive brand effect. These brands appear to act only via their influence on the marginal utilities associated with the quantity of each product.

Across individuals, ratings of the healthiness of humanely raised products are correlated with ratings of the taste of these products (0.67), and their tenderness (0.42). Perceived healthiness is also correlated with the rating of the extent to which humane treatment will improve the well-being of farm animals (0.55), and with the extent to which the respondent reports having thought about antibiotics, growth hormones, or genetic engineering and how these might affect chicken products (0.40). These correlations produce multicollinearity that can make it difficult to discern the independent contribution of each variable to respondents' choices. When any subset of these variables is omitted from an index, therefore, the remaining included variables may reflect some of their influence. In the specification in Table 3 in the paper, therefore, we must emphasize that the "H. (humanely raised) healthiness" attribute is undoubtedly picking up some of the influence of perceived tastiness and tenderness attributes as well.

In our preferred parsimonious specification, all of our attitudinal variables are entered as approximately continuous variables. We have explored the alternative of entering each variable as a set of indicators for the separate levels (other than the "neutral" or "same" option). We cannot reject the hypothesis that the utility index is linear in these ratings, however, so we revert to the linear specification to keep the parameter space small and to avoid the detrimental effects of many individually insignificant variables in the simulation of fitted WTP distributions and the variance of those distributions.

Finally, our survey provides data for a wide variety of questions which were included because of the ex ante expectation that the heterogeneity extracted from those questions might be important in understanding how consumer demand for humanely raised products varies across market segments. We have explored the influence of almost all of the variables available to us, individually and jointly. The individual characteristics which make robustly significant contributions to the problem of explaining consumer choice are included in our final parsimonious model. Where a survey variable is not discussed in this paper, it can be concluded that the variable in question was determined not to have any robustly significant effect in basic specifications with a sample of this size.

Table C-1: Error Components Model (240 respondents, 480 choices)

Variables[a]		**Coefficients**	
total price		-0.5279***	
		(0.099)	
total price		-0.1795**	
x 1(female)		(0.091)	
	1(Conventional) base coefficient	1(Free-range) differential	1(Humane) differential
pounds (q_i^j)	12.1827	-0.0591	-1.4489
	(97.147)	(0.722)	(0.986)
x household size	-0.5784**	-0.1065**	-0.1207**
	(0.243)	(0.047)	(0.054)
x 1(coll. grad)	-1.4812**	0.2729**	0.3082**
	(0.610)	(0.119)	(0.138)
x conservatism	-	-0.0897**	-0.1275***
		(0.040)	(0.048)
x H. healthiness	-		0.1589**
			(0.059)
x H. improves wellbeing	-	0.1780***	0.1678***
		(0.036)	(0.048)
x antibiotic concerns	-	0.1714***	0.2068***
		(0.032)	(0.037)
$\log(\sigma_\epsilon^2)^b$		3.3190***	
		(1.082)	
Log L		-429.444	

[a]Model also includes incidental controls in the form of indicators for the availability of data on household size and antibiotic concerns.

[b]Random coefficient, associated with an indicator that equals one for all alternatives except the no-purchase option, is assumed to be normally distributed with an expected value of zero but a non-zero variance. We adapt Kenneth Train's MXLMSL Matlab program to estimate the logarithm of the extra component of error variance associated with each alternative other than the no-purchase option. Additional parameter draws explanatory power away from the baseline variable for the weight of the conventional product.

0.0.4 Appendix D: Full Simulation Results

Table D-1: Heterogeneity in WTP premiums for free-range and humane products

Derivative with respect to:	**Derivative for free-range product**	**Derivative for humanely raised product**
X_s^k, $k = F, H$	$\frac{\delta^2 TWTP_i^j/lb}{\delta X_{ji}^F \delta F_i} = \left(\frac{\beta_{F1}}{(\beta_{Y0}+\beta_{Y1}Z_i)}\right)$	$\frac{\delta^2 TWTP_i^j/lb}{\delta X_{si}^H \delta H_i} = \left(\frac{\beta_{H1}}{(\beta_{Y0}+\beta_{Y1}Z_i)}\right)$
Females:		
household size	-$0.17	-$0.19
(# of persons)	(-$0.36, $0.00)	(-$0.42, $0.01)
1(college grad)	$0.39	$0.45
(0,1)	(-$0.05, $0.91)	(-$0.04, $1.05)
conservatism	-	-$0.18
(1 to 7)		(-$0.36, $0.00)
H. healthiness	-	$0.24
(1 to 7)		($0.04, $0.47)
H. improves wellbeing	$0.26	$0.25
(1 to 7)	($0.14, $0.41)	($0.06, $0.43)
antibiotic concerns	$0.25	$0.30
(1 to 7)	($0.14, $0.38)	($0.15, $0.47)
Males:		
household size	-$0.22	-$0.25
(# of persons)	(-$0.52, $0.00)	(-$0.62, $0.02)
1(college grad)	$0.53	$0.61
(0,1)	(-$0.06, $1.42)	(-$0.05, $1.49)
conservatism	-	-$0.24
(1 to 7)		(-$0.53, $0.00)
H. healthiness	-	$0.33
(1 to 7)		($0.05, $0.73)
H. improves wellbeing	$0.35	$0.33
(1 to 7)	($0.18, $0.63)	($0.08, $0.70)
antibiotic concerns	$0.34	$0.41
(1 to 7)	($0.18, $0.66)	($0.20, $0.74)

Cell contain median, 2.5^{th} and 97.5^{th} percentiles of the distribution of the calculated derivative, based on 1000 draws from the assumed joint normally distributed maximum likelihood parameter estimates. Intervals thus reflect the precision of parameter estimates.

Table D-2: Selected counterfactual simulations of premium for humanely raised product (calculated at the means of the variables, except as specified)

	Median	(2.5^{th}, 97.5^{th})
At marginal means of the variables:	$ 0.70	($0.33; $1.02)*
Simulations for "H. healthiness" (versus mean = 5.38):		
...set H. healthiness=3	$ 0.05	(-.71; .73)
...set H. healthiness=4 "Equally healthy"	0.32	(-.24; .80)
...set H. healthiness=5	0.60	(.19; .94)*
...set H. healthiness=6	0.85	(.50; 1.22)*
Simulations for "antibiotic concerns" (mean = 3.86):		
...set antibiotic concerns =2	$ 0.04	(-.49; .47)
...set antibiotic concerns =3	0.37	(-0.05; .72)
...set antibiotic concerns =4 (midway "Not at all" to "A lot")	0.72	(.35; 1.05)*
...set antibiotic concerns =5	1.03	(.64; 1.45)*
Simulations for "H. improves wellbeing" (mean = 5.20):		
...set H. improves wellbeing =1 "Not at all"	-$ 0.45	(-1.44; .51)
...set H. improves wellbeing =2	-0.17	(-.97; .57)
...set H. improves wellbeing =3	0.10	(-.55; .66)
...set H. improves wellbeing =4	0.36	(-.12; .79)
...set H. improves wellbeing =5	0.64	(.26; .98)*
...set H. improves wellbeing =6	0.91	(.52; 1.27)*
...set H. improves wellbeing =7 "A lot"	1.17	(.73; 1.67)*
Simulations for "H. healthiness" and "antibiotic concerns"		
...set H. healthiness=4 & antibiotic concerns=1	-$ 0.67	(-1.54; -.04)
...set H. healthiness=4 & antibiotic concerns=2	-0.33	(-1.05; .21)
...set H. healthiness=4 & antibiotic concerns=3	0.00	(-.60; .49)
...set H. healthiness=4 & antibiotic concerns=4	**0.34**	**(-.23; .82)**
...set H. healthiness=4 & antibiotic concerns=5	0.67	(.10; 1.24)*

* The 95% interval for this simulation is bounded away from zero

Table D-3: Derivatives of marginal WTP premium for humane product (based on parameters from the alternative error components model in Table C-1)

With respect to:	*For Females:*	*For Males:*
household size (# of persons)	-$0.17	-$0.23
	(-$0.35, -$0.02)	(-$0.50, -$0.02)
1(college grad) (0,1)	$0.44	$0.59
	($0.05, $0.86)	($0.07, $1.28)
conservatism (1 to 7)	-$0.18	-$0.24
	(-$0.33, -$0.05)	(-$0.48, -$0.07)
H. healthiness (1 to 7)	$0.22	$0.30
	($0.07, $0.42)	($0.08, $0.60)
H. improves Wellbeing (1 to 7)	$0.23	$0.31
	($0.11, $0.40)	($0.13, $0.59)
antibiotic concerns (1 to 7)	$0.29	$0.39
	($0.19, $0.42)	($0.23, $0.67)

We report medians and 2.5^{th} and 97.5^{th} percentiles of the distribution of the calculated derivative, based on 1000 draws from the assumed joint normally distributed maximum likelihood parameter estimates. Intervals thus reflect the precision of parameter estimates. For full results, see Appendix Table D-1.

0.0.5 Appendix E: Alternative Specifications

Table E-1: Consumption and "Don't Know price"

	(1)	(2)	(3)
LABELS	Preferred Model	Partial control for consumption, and known prices	Full control for consumption and known prices
Coefficient on package price: MU(income)			
-(total price)	0.4927***	0.5439***	0.5844***
	0.102	0.105	0.144
1(female) * -(total price)	0.1691**	0.1235	0.1142
	0.079	0.086	0.085
1(have data: eat conv, d_know price) * -(total price)			-0.2029
			-0.196
1(have data: eat FR, d_know price) * -(total price)			0.1994
			0.217
1(eat conv, d_know price) * -(total price)			0.0705
			0.25
1(eat FR, d_know price) * -(total price)			0.0631
			0.3
Indirect utility per pound			
lbs chicken	10.7029***	11.0683***	11.1390***
	-0.56	-0.782	-0.847
1(have data: hhld size) * lbs chicken	-6.5457***	-5.9287***	-5.8784***
	-0.612	-0.978	-0.989
household size * lbs chicken	-0.2479***	-0.4103***	-0.4176***
	-0.093	-0.153	-0.152
1(college grad) * lbs chicken	-0.8934**	-1.0272***	-1.0405***
	-0.362	-0.396	-0.402
1(have data: eat conv, d_know price) * lbs chicken		0.1728	-0.416
		-0.399	-0.748
1(have data: eat FR, d_know price) * lbs chicken		-1.0878**	-0.5079
		-0.509	-0.888
1(eat conv, d_know price) * lbs chicken		2.0822***	2.3125**
		-0.651	-0.985
1(eat FR, d_know price) * lbs chicken		-0.8607*	-0.6508
		-0.51	-1.029
Utility differential for free-range (FR)			
lbs chicken * FR	-0.076	-0.4854	-0.4425
	-0.502	-0.536	-0.546
1(have data: hhld size) * lbs chicken * FR	0.164	0.4549	0.4828
	-0.39	-0.404	-0.413
household size * lbs chicken * FR	-0.1108**	-0.0797	-0.083
	-0.056	-0.056	-0.056
1(college grad) * lbs chicken * FR	0.2566*	0.3284**	0.3162**
	-0.146	-0.157	-0.156
conservatism * lbs chicken * FR	-0.0855*	-0.0705	-0.0759
	-0.047	-0.05	-0.051
H. improves wellbeing * lbs chicken * FR	0.1719***	0.1665***	0.1647***
	-0.038	-0.04	-0.041
1(have data: antibio) * lbs chicken * FR	-0.8837***	-0.4933	-0.4819
	-0.215	-0.306	-0.313
antibiotic concerns * lbs chicken * FR	0.1670***	0.1575***	0.1550***
	-0.039	-0.041	-0.041
1(have data: eat conv, know price) * lbs chicken * FR		-0.3194	-0.4397
		-0.244	-0.28
1(have data: eat FR, d_know price) * lbs chicken * FR		-0.2665	-0.1605
		-0.183	-0.228
1(eat conv, d_know price) * lbs chicken * FR		-0.1984	-0.1604
		-0.203	-0.228
1(eat FR, d_know price) * lbs chicken * FR		0.7502***	0.7804**

		-0.26	-0.307
Utility differential for humanely raised			
lbs chicken * humane	-1.4942**	-1.8581**	-1.7818**
	-0.712	-0.73	-0.737
1(have data: hhld size) * lbs chicken * humane	1.0618**	1.3153***	1.3270***
	-0.445	-0.438	-0.442
household size * lbs chicken * humane	-0.1278*	-0.1094*	-0.1124*
	-0.069	-0.066	-0.066
1(college grad) * lbs chicken * humane	0.2930*	0.3478**	0.3337*
	-0.164	-0.176	-0.176
conservatism * lbs chicken * humane	-0.1194*	-0.1005	-0.1072
	-0.061	-0.065	-0.066
H. healthiness * lbs chicken * humane	0.1606**	0.1660**	0.1684**
	-0.068	-0.07	-0.071
H. improves wellbeing * lbs chicken * humane	0.1615***	0.1570***	0.1540***
	-0.056	-0.057	-0.057
1(have data: antibio) * lbs chicken * humane	-0.9981***	-0.7744*	-0.7665*
	-0.299	-0.414	-0.423
antibiotic concerns * lbs chicken * humane	0.1988***	0.1966***	0.1933***
	-0.052	-0.054	-0.054
1(have data: eat conv, d_know price) * lbs chicken * humane		-0.0524	-0.2913
		-0.311	-0.383
1(have data: eat FR, d_know price) * lbs chicken * humane		-0.1815	0.0428
		-0.213	-0.322
1(eat conv, d_know price) * lbs chicken * humane		-0.3938*	-0.3112
		-0.233	-0.323
1(eat FR d_know price) * lbs chicken * humane		0.5040*	0.5586
		-0.294	-0.42
Observations	1920	1920	1920
Log L	-436.718	-413.752	-412.804
Base WTP	-0.34	-0.23	-0.2
Robust standard errors below estimates			
*** p<0.01, ** p<0.05, * p<0.1			

Table E-2: Vegetarians

	(1)	(2)
LABELS	Preferred Model	Vegetarians
Coefficient on package price: MU(income)		
-(total price)	0.4927***	0.5028***
	0.102	0.104
1(female) * -(total price)	0.1691**	0.1654**
	0.079	0.084
Indirect utility per pound		
lbs chicken	10.7029***	11.0804***
	-0.56	-0.547
1(have data: hhld size) * lbs chicken	-6.5457***	-6.9305***
	-0.612	-0.651
household size * lbs chicken	-0.2479***	-0.1963*
	-0.093	-0.113
1(college grad) * lbs chicken	-0.8934**	-0.7973**
	-0.362	-0.391
1(vegetarian in HH) * lbs chicken		-1.1998***
		-0.457
Utility differential for free-range (FR)		
lbs chicken * FR	-0.076	-0.1123
	-0.502	-0.519
1(have data: hhld size) * lbs chicken * FR	0.164	0.1863
	-0.39	-0.406
household size * lbs chicken * FR	-0.1108**	-0.1147**
	-0.056	-0.058
1(college grad) * lbs chicken * FR	0.2566*	0.2635*
	-0.146	-0.148
conservatism * lbs chicken * FR	-0.0855*	-0.0808*
	-0.047	-0.047
H. improves wellbeing * lbs chicken * FR	0.1719***	0.1704***
	-0.038	-0.039
1(have data: antibio) * lbs chicken * FR	-0.8837***	-0.9126***
	-0.215	-0.221
antibiotic concerns * lbs chicken * FR	0.1670***	0.1757***
	-0.039	-0.041
1(vegetarian in HH) * lbs chicken * FR		0.2538
		-0.231
Utility differential for humane		

lbs chicken * humane	-1.4942**	-1.6726**
	-0.712	-0.712
1(have data: hhld size) * lbs chicken * humane	1.0618**	1.2976***
	-0.445	-0.435
household size * lbs chicken * humane	-0.1278*	-0.1512**
	-0.069	-0.073
1(college grad) * lbs chicken * humane	0.2930*	0.2982*
	-0.164	-0.167
conservatism * lbs chicken * humane	-0.1194*	-0.1075*
	-0.061	-0.062
H. healthiness * lbs chicken * humane	0.1606**	0.1449**
	-0.068	-0.068
H. improves wellbeing * lbs chicken * humane	0.1615***	0.1664***
	-0.056	-0.058
1(have data: antibio) * lbs chicken * humane	-0.9981***	-1.0995***
	-0.299	-0.311
antibiotic concerns * lbs chicken * humane	0.1988***	0.2171***
	-0.052	-0.054
1(vegetarian in HH) * lbs chicken * humane		0.5756**
		-0.286
Observations	1920	1920
Log L	-436.718	-428.575
Base WTP	-0.34	-0.33
Robust standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

Bibliography

Bliemer, M.C.J., J.M. Rose, and D.A. Hensher. 2009. "Efficient stated choice experiments for estimating nested logit models." *Transportation Research Part B-Methodological* 43:19–35.

Burgess, L., and D.J. Street. 2005. "Optimal designs for choice experiments with asymmetric attributes." *Journal of Statistical Planning and Inference* 134:288–301.

Carlsson, F., and P. Martinsson. 2003. "Design techniques for stated preference methods in health economics." *Health Economics* 12:281–294.

Caussade, S., J.D. Ortuzar, L.I. Rizzi, and D.A. Hensher. 2005. "Assessing the influence of design dimensions on stated choice experiment estimates." *Transportation Research Part B-Methodological* 39:621–640.

Ferrini, S., and R. Scarpa. 2007. "Designs with a priori information for nonmarket valuation with choice experiments: A Monte Carlo study." *Journal of Environmental Economics and Management* 53(3):342–363.

Goos, P., B. Vermeulen, and M. Vandebroek. 2010. "D-optimal conjoint choice designs with no-choice options for a nested logit model." *Journal of Statistical Planning and Inference* 140:851–861.

Hensher, D.A. 2006a. "How do respondents process stated choice experiments? Attribute consideration under varying information load." *Journal of Applied Econometrics* 21:861–878.

—. 2006b. "Revealing differences in willingness to pay due to the dimensionality of stated choice designs: An initial assessment." *Environmental & Resource Economics* 34:7–44.

Johnson, F.R., S. Ozdemir, and K.A. Phillips. 2010. "Effects of simplifying choice tasks on estimates of taste heterogeneity in stated-choice surveys." *Social Science & Medicine* 70:183–190.

Kanninen, B.J. 2002. "Optimal design for multinomial choice experiments." *Journal of Marketing Research* 39:214–227.

Li, P.F., and D.G. Wang. 2009. "Numerical Analysis of the Statistical Properties of Uniform Design in Stated Choice Modelling." *Transport Reviews* 29:619–634.

Rose, J., and M. Bliemer. 2009. "Constructing efficient stated choice experimental designs." *Transport Reviews* 29:587–617.

Sandor, Z., and M. Wedel. 2005. "Heterogeneous conjoint choice designs." *Journal of Marketing Research* 42:210–218.

Scarpa, R., D. Campbell, and W.G. Hutchinson. 2007. "Benefit estimates for landscape improvements: Sequential Bayesian design and respondents' rationality in a choice experiment." *Land Economics* 83:617–634.

Scarpa, R., S. Ferrini, and K. Willis. 2005. "Performance of error component models for status-quo effects in choice experiments." In *Applications of Simulation Methods in Environmental Resource Economics*. Springer Netherlands, vol. 6 of *The Economics of Non-Market Goods and Resources*, chap. 13, pp. 247–273.

Scarpa, R., and J.M. Rose. 2008. "Design efficiency for non-market valuation with choice modelling: how to measure it, what to report and why." *Australian Journal of Agricultural and Resource Economics* 52:253–282.

Street, D.J., and L. Burgess. 2008. "Some open combinatorial problems in the design of stated choice experiments." *Discrete Mathematics* 308:2781–2788.

Toubia, O., and J.R. Hauser. 2007. "On managerially efficient experimental designs." *Marketing Science* 26:851–858.

Food Shopping Preferences

We would appreciate your assistance with this research project on food preferences. We are Claire Tonry and Trudy Cameron. Claire is a 2006 graduate of the University of Oregon and this project began as her honors thesis. Trudy is a professor in the Department of Economics at the University of Oregon. The Lane County Circuit Court is in no way responsible for the development or content of this project. This is educational research with potential policy relevance. We plan to make a summary of our general findings available to policy-makers, grocery stores, and non-profit charitable organizations. The results from our study may help them better understand consumers' tastes.

All you need to do is complete this short questionnaire, which should take approximately 15 minutes. Your participation is voluntary. If you do not wish to participate, simply return the unmarked questionnaire for someone else to use (or discard it if you have marked it in any way). Responses will be completely anonymous; your name will not appear anywhere on the survey. Completing and returning the questionnaire constitutes your consent to participate.

Keep this letter for your records. If you have any questions regarding the research, contact the project's faculty collaborator, Dr. Trudy Cameron at the University of Oregon's Department of Economics, at (541) 346-1242. If you have any questions regarding your rights as a research subject, please contact the Office for Protection of Human Subjects at the University of Oregon at (541) 346-2510. After September 30, 2006, a brief summary of average responses to this survey will be posted on the web at http://darkwing.uoregon.edu/~cameron/foodsurvey. No individual responses will be revealed. Thank you again for your help.

Food Shopping Preferences

Introduction

Many people don't think too much about the foods they buy. However, animal rights groups are concerned about the treatment of livestock and poultry on modern farms. Some groups have proposed raising money from their members to broaden an official program to certify farms that produce "humanely raised" animals. With such a certification, consumers who wish to support better treatment of animals can look for products with this label. They will know that the higher price reflects the higher standards of animal care that the label would guarantee.

However, the funds that people would donate to pay for expanding this certification program could be spent for other causes—for example, children's health or elder care or poverty programs. Consumers may not be sufficiently willing to pay higher prices for humanely raised meats. In that case, this larger-scale certification program would be a bad idea. The effort and money used to develop the program might be better spent on other things.

This survey is designed to gather information about likely consumer demand for certified humanely raised meats. You will be asked to consider a number of food-shopping scenarios. In each case, we want you to indicate what choices you would probably make on a real shopping trip, given your food budget and all the other things you normally need to buy.

It is important for our research that we collect the opinions of many different types of people. Regardless of your food preferences (**and even if you do not buy meat**) we hope you will participate in our study. The better our participants reflect the mix of opinions in the overall population, the better the advice we can provide to policy-makers, animal rights groups, and their potential donors.

This is a completely anonymous survey. It should take about 15 minutes to complete.

Section A. Different approaches to raising livestock and poultry

First, we will describe in more detail some different approaches to raising farm animals, like livestock and poultry, for food. Then we will ask you to consider some possible food shopping scenarios and what products you would prefer. Next we will ask you a few questions about your choices, and then we will follow up with some questions about you. These will allow us to combine your answers with those of other people like you.

Conventionally raised meats Federal laws already require farms, ranches and slaughterhouses to meet certain standards when they raise and process animals for meat:

a. Animals must have plenty of food and water
b. Animals must be made unconscious before they are slaughtered

A.1. Were you previously aware of these existing requirements?

- ☐ Yes
- ☐ No
- ☐ Not Sure

Free-range meats Some farms already choose to go beyond the conventional standards to raise what is sometimes called “free-range” meat. There are no specific laws about what farming practices can or cannot be called free-range, but these animals should spend at least some time outdoors.

A.2. Have you ever noticed free-range farm products for sale in the grocery stores where you shop?

- ☐ Yes
- ☐ No
- ☐ Not Sure

Humanely raised meats These products are not yet widely available. An independent certifying organization would supervise specific animal husbandry standards that individual farmers could choose to follow if they wish.

These standards would concern veterinary care, healthy feeds, shelter/shade, ample space, pasture/rangeland/outdoor access, comfortable indoor protection during extreme weather, proper weaning, no unnecessary physical alterations, no electric shocks, natural cycles of light and dark, and continuous access to food.

A farm that can meet these detailed requirements, after inspection by the certifying organization, would be able to label its meat products as "Humanely Raised" (or "Humane").

Important: this label does NOT necessarily mean that these products are "Organically Grown." It refers only to the way farm animals are treated.

A.3. Prior to now, have you heard or read anything about these humane practices for raising livestock and poultry?

- ☐ Yes
- ☐ No
- ☐ Not Sure

A.4. How much do you think these requirements would actually improve the well-being of livestock and poultry raised on certified farms?

☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
Not at all						A lot

A.5. Roughly what fraction of "conventional" farms do you think **already** make sure that their livestock and/or poultry meet most of these requirements:

☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7
none	few	25%	50%	75%	most	Don't Know

A.6. Do you think that humanely raised meats might be more or less healthy for people to eat than conventional meats?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

Much less healthy than conventional meats — Equally healthy — Much more healthy than conventional meats

A.7. Do you think that humanely raised meats might have a different taste than conventional meats?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

Much worse taste than conventional meats — Same — Much better taste than conventional meats

A.8. Do you think that humanely raised meats might be tougher or more tender than conventional meats?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

Much tougher than conventional meats — Same — Much more tender than conventional meats

A.9. Roughly what price would your household normally have to pay for each of these products? (enter price and/or check a box)

Product	$ per pound	Eat this, but don't know price	Don't eat this
Conventional chicken breasts	____	☐	☐
Conventional top sirloin steak	____	☐	☐
Conventional ground beef (15% fat)	____	☐	☐
Free-range chicken breasts	____	☐	☐
Free-range top sirloin steak	____	☐	☐
Free-range ground beef (15% fat)	____	☐	☐

A.10. If you checked "Eat this, but don't know price" in at least one case above, please check the reason(s) why:

☐ Somebody else in my household usually does the shopping
☐ I just buy my usual brand in a package that is the size I need.
☐ I just buy whatever looks good.
☐ Other _____

Section B. Product Choices

Next, we will ask you to consider some product choices like those you might actually face when you shop for food. These choices will concern conventional, free-range, and humanely raised ("humane") meat products. **There are no right or wrong answers to these questions.**

Some reminders:

Conventional farming methods are often the **cheapest methods** for farmers. Lower costs mean that farmers can price their products competitively. Consumers can use the money they save to pay for other things that are also important to them or their families. Some consumers with tight budgets simply cannot afford to pay extra for humanely raised meat products, even though they would like to see better treatment of farm animals.

On the other hand, some people feel a strong moral obligation, in a survey like this one, to **say** that they would choose the humanely raised product. However, if the prices of humanely raised products are too high, these products will not be affordable for many people. We need you to be as realistic as possible about your likely shopping choices.

If the purchase intentions that people state in this survey are **overly optimistic**, it is possible that the "humanely raised" certification program will be expanded by mistake. The money and time used to further develop it would be better spent on some other socially valuable program.

Instructions:

Please consider each of the following six choice scenarios **separately**. Assume that each scenario concerns a typical shopping trip where you have only the usual amount of time to compare products.

(Note: If *someone else* in your household normally shops for food, please answer the choice questions on behalf of that person (to the best of your ability). If you live in a college dormitory or other institutional setting, please answer as if you were currently shopping for yourself.)

- If every product in a choice scenario seems too expensive, choose “None.”
- If you would look for something else instead, choose “None.”
- If you never buy the meat product(s) being described, choose “None.”

Choice Scenario # 1 (Chicken Breasts)

Suppose you have come to your usual food store. You are considering whether to buy a 2-pound package of chicken breasts. The store offers three brands of chicken breasts that look the same. The color, size and fat content of each brand are very similar. The only visible difference is that one brand is marked “Humane,” one brand is marked “Free-range,” and the third brand is marked “Conventional”. The prices are also different.

Keeping in mind your household budget, which would you choose? (check ONE)

	A	B	C	None
Type	Humane	Free-range	Conventional	
Package size	2 lbs	2 lbs	2 lbs	
Price	$ 3.59/lb	$ 3.54/lb	$ 3.49/lb	
Total cost	$ 7.18	$ 7.08	$ 6.98	$ 0
I prefer:	☐	☐	☐	☐

Now consider a different shopping trip, and a different choice scenario.

Choice Scenario # 2 (Chicken Breasts)

Now suppose that you are considering whether to buy a 3-pound package of chicken breasts. This time, the prices are different.

Keeping in mind your household budget, which would you choose? (check ONE)

	A	B	C	None
Type	Humane	Free-range	Conventional	
Package size	3 lbs	3 lbs	3 lbs	
Price	$ 4.14/lb	$ 3.39/lb	$ 2.89/lb	
Total cost	$ 12.42	$ 10.17	$ 8.67	$ 0
I prefer:	☐	☐	☐	☐

Now we will ask you to consider some other possible food shopping trips. Please consider each choice task separately from the others.

Choice Scenario # 3 (Top Sirloin Beef Steak)

Suppose you are considering whether to buy 2.5 pounds of beef steak (top sirloin). At the store there are three brands of beef that look the same. The cut, color, size and fat content are very similar. However, one brand is marked "Humane," one brand is marked "Free-range," and the third brand is marked "Conventional". The prices are also different.

Keeping in mind your household budget, which would you choose? (check ONE)

	A	B	C	None
Type	Humane	Free-range	Conventional	
Package size	2.5 lbs	2.5 lbs	2.5 lbs	
Price	$ 8.49/lb	$ 7.99/lb	$ 6.49/lb	
Total cost	$ 21.22	$ 19.97	$ 16.22	$ 0
I prefer:	☐	☐	☐	☐

Choice Scenario # 4 (Ground Beef)

Suppose that you are considering whether to buy a 2.5-pound package of ground beef (15% fat). At the store, there are three brands of beef that look the same. However, one brand is marked "Humane," one brand is marked "Free-range," and the third is marked "Conventional". The prices are also different.

Keeping in mind your household budget, which would you choose? (check ONE)

	A	B	C	None
Type	Humane	Free-range	Conventional	
Package size	2.5 lbs	2.5 lbs	2.5 lbs	
Price	$ 6.19/lb	$ 4.69/lb	$ 3.69/lb	
Total cost	$ 15.48	$ 11.73	$ 9.23	$ 0
I prefer:	☐	☐	☐	☐

The final two choice scenarios appear on the next page. They will describe six products, rather than three. Please continue to check JUST ONE box for each choice scenario.

Choice Scenario # 5 (Chicken Breasts or Top Sirloin Beef Steak)

Suppose you are considering whether to buy a 1.5-pound package of meat. It can be *either* chicken or beef steak (top sirloin). You have a choice between three kinds of chicken that look the same, and three kinds of beef top sirloin steak that look the same. However, as before, the brands are marked differently.

Keeping in mind your usual household budget, which would you choose? (check **JUST ONE** of the seven boxes)

	A	B	C	D	E	F	None
Product	Chicken	Chicken	Chicken	Steak	Steak	Steak	
Type	Humane.	Free-range	Conven.	Humane.	Free-range	Conven.	
Size	1.5 lbs	1.5 lbs	1.5 lbs	1.5 lbs	1.5 lbs	1.5 lbs	
Price	$4.99/lb	$4.79/lb	$3.29/lb	$6.24/lb	$5.74/lb	$4.99/lb	
Cost	$ 7.48	$ 7.18	$ 4.93	$ 9.36	$ 8.61	$ 7.48	$ 0
I *most* prefer:	☐	☐	☐	☐	☐	☐	☐

Choice Scenario # 6 (Chicken Breasts or Ground Beef)

Suppose you are considering whether to buy a 3-pound package of meat. It can be *either* chicken or ground beef (15% fat). Again, you are faced with a choice between three kinds of chicken that look the same, and three kinds of ground beef that look the same. However, as before, the brands are marked differently.

Keeping in mind your usual household budget, which would you choose? (check **JUST ONE** of the seven boxes)

	A	B	C	D	E	F	None
Product	Chicken	Chicken	Chicken	Ground beef	Ground beef	Ground beef	
Type	Humane.	Free-range	Conven.	Humane.	Free-range	Conven.	
Size	3 lbs	3 lbs	3 lbs	3 lbs	3 lbs	3 lbs	
Price	$3.74/lb	$2.74/lb	$2.69/lb	$5.99/lb	$5.49/lb	$3.49/lb	
Cost	$ 11.22	$ 8.22	$ 8.07	$ 17.97	$ 16.47	$ 10.47	$ 0
I *most* prefer:	☐	☐	☐	☐	☐	☐	☐

Section C. Questions related to your choices

C.1. How confident are you that you would always make the same six choices you indicated above, if you were actually shopping under those same conditions?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

Not at all confident Very Confident

C.2. In choosing among different brands of chicken breasts, to what extent were you thinking about "bird flu" and how it might affect chicken products?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

Not at all A lot

C.3. In choosing among different brands of chicken breasts, to what extent were you thinking about antibiotics, growth hormones, or genetic engineering and how these might affect chicken products?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

Not at all A lot

C.4. In choosing among different brands of beef, to what extent were you thinking about "mad cow disease" and how it might affect beef products?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

Not at all A lot

C.5. In choosing among different brands of beef, to what extent were you thinking about antibiotics, growth hormones, or genetic engineering and how these might affect beef products?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7

Not at all A lot

Section D. How can you be described?

D.1. What is your age? ___

D.2. What is your gender?

- ☐ Male
- ☐ Female

D.3. Including yourself, how many people are in your household? ___

D.4. Including yourself, how many members of your household consider themselves to be vegetarians or vegans (i.e. choose to eat no meat products)? ___

D.5. If you (or other household members) are vegetarian, please indicate why (mark all that apply):

- ☐ Health
- ☐ Religion
- ☐ Environmental concerns
- ☐ Ethical reasons (animal rights)
- ☐ Do not like meat
- ☐ Other (please describe) _____

D.6. Does your household regularly purchase these products? (mark all that apply)

- ☐ Chicken
- ☐ Beef
- ☐ Pork
- ☐ Fish
- ☐ Lamb
- ☐ Other meat-based proteins
- ☐ Tofu or other non-meat proteins

D.7. Are you the primary grocery shopper (or one of the primary shoppers) for your household?

- ☐ Yes
- ☐ No

D.8. For how many people, including you, does the shopper normally buy food?

_____ people

- ☐ Does not apply (I live in a dormitory or similar institutional setting)

D.9. When they are available where you happen to be shopping, do you buy "free-range" brands of the following? (check one in each row)

	Always	Sometimes	Never
Chicken	☐	☐	☐
Beef	☐	☐	☐
Pork	☐	☐	☐
Lamb	☐	☐	☐
Eggs	☐	☐	☐
Other proteins	☐	☐	☐

D.10. Where do you usually buy meat?

☐ Grocery store (major national chain, such as Safeway, Albertson's, etc.)
☐ Discount food store (such as Costco, etc.)
☐ Grocery with some natural foods (such as Market of Choice, etc.)
☐ Butcher shop
☐ Farm or farmer's market
☐ Other (please describe) _____
☐ Do not usually buy any meat

D.11. How often do you use coupons when you shop for groceries?

☐ Often
☐ Sometimes
☐ Rarely or never

D.12. In terms of politics, how do you consider yourself?

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7

Extremely liberal — Moderate — Extremely conservative

D.13. Have you ever lived on a farm that raised livestock or poultry for food?

☐ Yes
☐ No

D.14. Do you belong to any animal rights organizations?

- ☐ Yes
- ☐ No

D.15. Think about the way the information in this survey was presented. How important do you think it is *to this research team* for people to buy humanely raised meat products?

☐	☐	☐	☐	☐	☐	☐
1	2	3	4	5	6	7

Not at all important Neutral Extremely important

D.16. What is your highest level of education?

- ☐ Less than high school
- ☐ High school graduate
- ☐ Some college, no degree
- ☐ Degree (occupational)
- ☐ Associate degree (academic)
- ☐ Bachelor's degree
- ☐ Master's degree
- ☐ Professional degree
- ☐ Doctorate degree

D.17. Consumer choices often depend upon income levels. In our research, we need to group your answers with those of other people who have similar household incomes. What is your approximate annual household income—from work, investments, pensions, social security, public assistance and all other sources? (Remember, no one will be able to link the information on this survey to your identity.)

- ☐ Less than $5,000
- ☐ $ 5,000 – $ 9,999
- ☐ $ 10,000 – $ 14,999
- ☐ $ 15,000 – $ 19,999
- ☐ $ 20,000 – $ 24,999
- ☐ $ 25,000 – $ 29,999
- ☐ $ 30,000 – $ 39,999
- ☐ $ 40,000 – $ 49,999
- ☐ $ 50,000 – $ 59,999
- ☐ $ 60,000 – $ 79,999
- ☐ $ 80,000 – $ 99,999
- ☐ $100,000 – $149,999
- ☐ $150,000 – $199,999
- ☐ $200,000 or more

D.18. We need to know how well the different people who have taken this survey represent the actual population of Lane County. Please tell us how you would identify yourself using the standard U.S. Census categories for:

a. Race

- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White

b. Ethnicity

- ☐ Hispanic or Latino
- ☐ Not Hispanic or Latino

D.19. Comments or feedback?

Thank you for participating in this survey.

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[For data entry only: Meat prices = version 201]