

10-2005

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## Recommended Citation

DeCarlo, Thomas E.; Franck, Veronica Jean; and Pirog, Richard S., "Consumer perceptions of place-based foods, food chain profit distribution and family farms" (2005). *Leopold Center Pubs and Papers*. 158.  
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# Consumer perceptions of place-based foods, food chain profit distribution and family farms

## **Abstract**

Consumers who participated in this Internet survey would like to see farmers receive a higher share of the profits for retail food products. See related grant project 2004-MSP05.

## **Keywords**

Agritourism and place-based food

## **Disciplines**

Agribusiness | Agriculture | Entrepreneurial and Small Business Operations | International and Community Nutrition | Marketing



## **Consumer perceptions of place-based foods, food chain profit distribution, and family farms (MSP04-05)**

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## **Background and Scope**

The companies that operate most efficiently – and thus are able to offer their products at the lowest prices – dominate most modern commoditized food markets. Historically, this reality has prompted many companies to emphasize lower costs and higher volumes. Such an approach clearly tilts the playing field in favor of the biggest producers who are able to capitalize on economies of scale, and simultaneously places small and mid-size agricultural producers at a significant competitive disadvantage.

However, an alternative strategy that is increasingly popular as a means of differentiating products involves positioning offerings in a way that creates favorable attitudinal and behavioral (e.g., purchase) consequences. One possible differentiating factor examined in the present study is whether consumers perceive place-based foods from regional producers differently than foods from conventional producers. Place-based foods have unique taste and quality characteristics that are influenced by the ecology, culture, and traditions of a specific geographic region.

Specifically, this research is designed to determine how much value consumers ascribe to place-based fruit and vegetables produced by locally owned and operated companies that share a majority of the economic benefits with the rural communities and local farmers who grow the produce. The study focuses on determining the price premiums consumers are willing to pay for such products, as compared to products from large companies which are located in another area of the country outside of a respondent's state, and where the majority of the economic benefit from the sale of the produce goes to the company and its shareholders rather than the farmers and rural communities.

A secondary study objective is to examine two potential factors (i.e., moderators) that might alter consumers' willingness to pay. The first is whether consumers will cognitively adhere to the initial product price they see in a grocery store and use that price to adjust (or fail to adjust) their decision making in evaluating the price of a similar product from another company. Hence, we manipulate which product the consumer sees first in the on-line experimental "shopping experience."

The second study factor is the involvement level of the decision. This relates to the level of importance the purchase decision has in the consumer's world. The specific research question asked is: Would the importance, or consumer involvement, of purchasing a particular food group alter consumer decision strategies and "willingness to pay" perceptions for the local place-based product? Thus, we examine whether higher (relative to lower) involvement affects consumers' purchasing decisions. Answers to these research questions could provide important information to guide regional food producers' marketing strategies.

In addition to the experimental aspect of this study, an additional set of questions was designed and posed to gain insight into consumer perceptions about food value chain profit distribution and family farms, and understanding of the value of and willingness to pay for place-based foods.

## **Method**

The proposed study employed a 2 (involvement: higher vs. lower) X 2 (order of presentation: conventional first vs. regional first) between-subjects factorial design (see Appendix 1 for manipulations of involvement and order of presentation). The survey was distributed via e-mail through a third-party company to a randomly selected sample population of consumers in the United States. The initial sample of approximately 3,500 consumers generated a final sample size of 851 partially or fully completed surveys (or approximately 24 percent). The last step in the process was the collection of data by SurveyMonkey.com which allowed for review of individual responses for each question. The results are discussed in the order in which the questions were asked in the survey. Demographic results for the survey can be found in Appendix 2.

## **Results - Part One**

### **Experimental design questions and responses**

#### **1. We would like you to make a choice between the produce offered by Company A (out of state) and that offered by Company B (locally owned and operated), based on the information provided.**

This question was evaluated by comparing the number of respondents selecting produce from Company A or Company B under the various levels of involvement and order of presentation. A multinomial logistic regression model was used to make this comparison. The results suggest that neither the involvement level (i.e., importance of the decision was either high or low), nor the order in which the respondent saw the produce in the grocery store (whether Company A or B's produce was presented first) had an impact on consumer choice (chi square (d.f. = 3) = 2.26,  $F > .50$ ). As shown in Table 1 below, the vast majority of consumers (84 - 89 percent) selected the produce from the locally owned and operated company, regardless of when they saw the produce and the involvement level of the decision. Thus, it appears that a locally owned firm providing economic benefits to a community was *the* most important factor in respondents' decision making.

Table 1

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-----Experimental Factors-----

Order of Presenting the Produce to Consumer	Involvement Level of the Decision	Choice	
		Company A	Company B
Company A first	High	13%	87%
Company A first	Low	11%	89%
Company B first	High	16%	84%
Company B first	Low	14%	86%

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Additional open-ended measures asked the respondents why they chose that particular company's produce. These thoughts were coded into eight categories: beneficial to farmers, beneficial to community, fresher food, better price or bargain, first item seen, company provided everything needed, quality, and not sure why. A summary of the thoughts are shown in Table 2. The most interesting difference between the Company A and Company B results is that more than 20 percent of the respondents indicated they chose B's products because of the benefits to the community, while no respondents stated this a reason for choosing Company A's products. This finding appears to support the choice results in question #1.

Table 2

Reason Why Consumer Selected This Company's Produce	Percent of Total	
	Company A	Company B
Beneficial to farmers	5%	11%
Beneficial to community	0%	21%
Fresher food	4%	10%
Better price or bargain	29%	9%
First item seen	10%	9%
Company provided everything needed	16%	0%
Quality	5%	9%
Not sure why	31%	40%

For those consumers who selected Company B's produce, we asked the following additional question: "You have chosen to purchase Company B's produce. In making that decision which was more important?" The responses, summarized in Table 3, suggest that 56 percent of respondents chose Company B because of the economic benefits that stay in the local community, while 38 percent of respondents chose Company B because the economic benefits and the tradition/heritage were equally important. Only 6 percent felt that the company's association with the tradition and heritage of the respondent's state was important.

Table 3

You have chosen to purchase Company B's produce. In making that decision which was more important?	Percent of Total
The associate of Company B's produce with the tradition and heritage of my region and state.	6%
The economic benefits from Company B stay with the farmers and community members of my region and state.	56%
The economic benefits and tradition/heritage were equally important.	38%

**2. How much would you be willing to pay for the produce from this company? (Assuming a base price of \$2.00)**

The results, shown in Table 4, suggest that approximately 37 percent of consumers would pay more than the \$2.00 base price for Company A's produce (i.e., large out-of-state conglomerate) while 56 percent of consumers would pay more for Company B's produce (local company). Further, approximately 62 percent of consumers believe they would pay the base price or less for

Company A's produce while 40 percent of consumers would pay base price or less for Company B's produce. These results are important in that they suggest consumers appear to be willing to pay more for produce from local companies than from companies that operate out of state and provide little economic value to the local economy.

Table 4

	Percent of Total Company B	Percent of Total Company B
100% more (or \$4.00)	6.5%	4.0%
80% more (or \$3.60)	0.0	0.4%
60% more (or \$3.20)	3.9%	3.4%
40% more (or \$2.80)	9.1%	7.4%
20% more (or \$2.40)	13.0%	18.5%
10% more (or \$2.20)	5.2%	22.6%
\$2.00 base price	42.9%	31.5%
10% less (or \$1.80)	3.9%	6.2%
20% less (or \$1.60)	10.4%	2.4%
40% less (or \$1.20)	5.2%	3.6%

**3. What do you think the relative *price* of the produce offered by the two companies should be?**

To test the degree to which the consumer involvement and order of presentation had an effect on consumer normative perceptions of the relative price between Company A and Company B's products, an Analysis of Variance (ANOVA) procedure was conducted. ANOVA results indicate a significant main effect of order ( $F(1, 694) = 5.44, p < .05$ ). There were no other significant effects. Further analysis of the cell means indicates that respondents were more likely to believe Company B's prices (Mean = 5.00) should be higher than Company A's prices (Mean = 4.59) when respondents saw Company A's produce prior to Company B's produce. This finding provides additional support for the added value consumers place on locally owned producers.

**4. How important was this purchase decision to you?** This question was asked to determine if the experimental manipulation of involvement worked as intended (i.e., respondents would be



more likely to agree with the statement when they were shopping for groceries for an important dinner that night as compared to no information about shopping importance). ANOVA results revealed a significant interaction effect of involvement x order ( $F(1, 694) = 2.73, p < .10$ ) on importance of the decision measure. There were no other significant effects. An analysis of the cell means indicates that under high involvement, respondents felt the decision was more important when they saw Company A's produce first (Mean = 6.81) than when they saw Company B's produce first (Mean = 6.56). Under low involvement, an opposite pattern of results were found. Respondents felt the decision was more important when they saw Company B's produce first (Mean = 6.79) than when they saw Company A's produce first (Mean = 6.59). Thus, these findings suggest that the involvement manipulation did not work as intended.

**Results - Part Two**

**Additional survey questions on consumer perceptions of food value chain profit distribution, place-based foods, and family farms.**

In addition to the experimental aspect of the study, we asked a series of questions designed to gain more insights about consumer views on a variety of sustainable and local agricultural issues. The specific questions, along with a summary table of the results and brief discussion, are presented next.

**Assume that price, appearance, and quality of a meat or produce item you were considering buying were similar, and the only other information you had on this food was that it was grown and processed by a company in a specific geographic region in your state in which certain stakeholders had significant economic benefits. Please rank these three descriptions based on preference.**

Table 5

	Highest Preference	Medium Preference	Lowest Preference
The farmers and local investors in the company in the region and your state receive the most significant economic benefit from the sale of the product.	94.1%	4.1%	1.8%
The investors who live outside of the region and your state receive the most significant economic benefit from the sale of the product.	3.0%	28.5%	68.5%
It is unknown whether people in the region or people outside the region and your state receive the most significant economic benefit from the sale of the product.	3.0%	67.4%	29.6%

Respondents clearly preferred to buy meat or produce items that generated the most significant economic benefit for the farmers and local investors in their state. Not knowing who would receive the highest economic benefit was a higher preference for respondents than knowing that investors outside of their state and region would receive the highest economic benefit.

**Assume that the price, appearance, and quality of some meat or produce items are the same, and the only other information you had on the product was the percent of the retail food cost that each partner in the food chain received. Which division of profits would you choose? Assume that all of the partners are located in your state, or in a bordering state.**

Table 6

	Farmers receive 10% of the profits; Processors receive 30% of the profits Distributor receives 30% of the profits; Retailer receives 30%of the profits.	Farmers receive 25% of the profits; Processors receive 25% of the profits; Distributor receives 25% of the profits; Retailer receives 25% of the profits.	Farmers receive 40% of the profits; Processors receive 20% of the profits; Distributor receives 20% of the profits; Retailer receives 20% of the profits.
Percent of total	2.6%	32.7%	64.7%

More than two-thirds of respondents preferred to have farmers receiving a higher percentage of profits than the other partners in the food chain. Nearly a third of respondents wanted to see an equal distribution of profits across all partners in the food chain.

**In the grape and wine industry, it is accepted in most countries in the world that the quality and taste of the grapes which make the wine are influenced by the type of soil, slope, drainage and other natural resource characteristics of that particular region. Do you believe it is likely that these geographic characteristics influence the taste and quality of other foods, such as meat, produce, or dairy?**

Table 7

	Likely	Somewhat Likely	Uncertain	Somewhat Unlikely	Unlikely
Percent of total	33.6%	38.0%	20.2%	5.5%	2.7%

One third of respondents believed it is likely that natural resource characteristics of a particular region influence the taste and quality of foods such as meat, produce, and dairy. Nearly 72 percent of respondents believed this influence to be likely or somewhat likely. Less than 8 percent of respondents believed this influence to be somewhat unlikely, or unlikely.

**How much would you be willing to pay for a food product if the taste and quality were linked to a specific geographic region in your state (in the U.S.)?**

Table 8

	Percent of Total
Up to 30% less than a similar product without the link	2.2%
Up to 20% less than a similar product without the link	1.9%
Up to 10% less than a similar product without the link	1.6%
Same as a similar product without the link	38.1%
Up to 10% more than a similar product without the link	29.9%
Up to 20% more than a similar product without the link	19.6%
Up to 30% more than a similar product without the link	6.1%
Another amount	0.6%

**How much would you be willing to pay for a food product if the quality and taste are linked to a specific geographic region in a state other than your home state (in the U.S.)?**

Table 9

	Percent of Total
Up to 30% less than a similar product without the link	3.5%
Up to 20% less than a similar product without the link	3.2%
Up to 10% less than a similar product without the link	5.6%
Same as a similar product without the link	54.6%
Up to 10% more than a similar product without the link	19.4%
Up to 20% more than a similar product without the link	9.4%
Up to 30% more than a similar product without the link	3.5%
Another amount	0.8%

More than 56 percent of respondents were willing to pay more for place-based foods grown in their states, while only 33 percent of respondents were willing to pay more for place-based foods if those foods were grown outside of their state.

**Based on your perception of what family farmer means, what kind of influence would a label or seal on food products signifying that they are produced by “family farmers” have on your purchase decision?**

Table 10

	Positive influence	Some positive influence	No influence	Some negative influence	Negative influence
Percent of total	33.7%	49.3%	16.3%	0.7%	0.0%

**Imagine that you are eating at a restaurant, and the menu claims that the meat and produce for the entree you are interested in ordering are "raised by family farmers." Please rate each of the following descriptions below as to how accurately they describe your perception of what "family farmers" means.**

Table 11

	Accurate	Somewhat Accurate	Uncertain	Somewhat Inaccurate	Inaccurate
Farms where family members provide at least part of the labor and make most of the management and operational decisions.	52.3%	32.6%	10.2%	3.3%	1.6%
Farms whose gross farm income is less than \$1,000,000.	13.1%	20.5%	42.1%	11.0%	13.3%
Farms whose revenue is the primary source of income for the family.	58.4%	27.8%	11.0%	1.6%	1.2%
Farms whose production practices conserve natural resources and have a positive economic impact on the rural community in which it operates.	30.5%	30.7%	27.8%	6.8%	4.2%
Farms that are small and whose gross farm income is less than \$25,000.	16.4%	20.7%	39.8%	11.8%	11.3%
Farms that sell directly to the restaurant.	22.6%	29.0%	29.3%	10.3%	8.8%
Farms that do not receive any government payments.	9.4%	14.4%	40.9%	14.7%	20.6%

Respondents were most likely to view family farms as those where family members provided labor and made management decisions, farms whose revenue was a primary source of income, and farms using conservation practices. There was uncertainty as to whether farms that do not receive government payments and farms with sales under \$1,000,000 are to be characterized as family farms.

## How concerned are you with healthy eating?

Table 12

	Concerned	Somewhat concerned	Neither concerned nor unconcerned	Somewhat unconcerned	Very unconcerned
Percent of total	42.7%	45.4%	7.9%	2.3%	1.7%

Nearly 90 percent of respondents were concerned or somewhat concerned about healthy eating. Only 4 percent were unconcerned.

### Conclusions

The following conclusions can be drawn from this study:

- Respondents are more likely to choose a local food product that offers clear economic benefits to the farmers who grew the product and the community that supported the farmer than a food product that does not deliver significant economic benefits to the local economy.
- A majority of respondents would like to see farmers receive a higher share of the profits for retail food products relative to other partners in the food chain (processors, distributors, and retailers).
- A majority of respondents believed it be at least somewhat likely that the taste and quality of meat, produce, and dairy products are influenced by the natural resource characteristics of the region where the products were grown.
- Respondents are more likely to pay amounts above the conventional price for place-based food products grown in their state than for those place-based food products grown outside of their state.
- Respondents were most likely to view family farms as those where family members provided labor and made management decisions, farms whose revenue was a primary source of income, and farms that used conservation practices.

## Appendix 1

### **Background Information about Company A and Company B:**

Both Company A and Company B grow fresh, unprocessed produce (e.g., lettuce or other fruits and vegetables) that is sold on the market. In addition, both companies are involved in the sale of value-added fruits and vegetable products (fruit and vegetables that are further processed and packaged).

### **Information about Company A**

Company A is a firm whose headquarters is located in another area of the country outside of your state. The majority of the economic benefit from the sale of the produce goes to this company and its shareholders rather than the farmers and rural community residents (in your state) who grew and packaged the produce. Their produce items are standard varieties that are grown in many locations around the country.

### **Information about Company B**

Company B is a firm that is locally owned and operated within your state. The majority of the economic benefit from the sale of the produce is shared between this company and the farmers and rural community residents who grew and packaged the produce. The produce items are special varieties of fruits and vegetables that have a tradition and heritage connected with a specific geographic region within your state, or the entire state.

### **Involvement Manipulation:**

#### *High Involvement:*

Assume that you walked into your local grocery store with a list of items to buy. Also assume that you are planning a very important dinner party for family and friends and you want to make sure everything goes well, particularly with the meal that you are preparing.

#### *Low Involvement*

Assume that you walked into your local grocery store with a list of items to buy.

The first item on your list is to buy is fresh produce.

## **Appendix 1**

### **Order Manipulation (Company A's products appeared first vs. Company B's)**

The first item on your list is to buy is fresh produce. As you move your way up the produce aisle you see Company A's products (versus Company B's products).

You see one of the items on your list that is priced at \$2.00 per pound.



## Appendix 2

### Survey Demographics

What is your gender?

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	Female	Male
Percent of total	70.2%	29.8%

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What is your age?

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	Percent of Total
30 and under	28.7%
31-45	30.5%
46-60	35.5%
Over 60	5.3%

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Where do you live?

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	Percent of Total
Urban	23.2%
Suburban	36.2%
Small town	22.5%
Rural	18.1%

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Please indicate your state of residence.

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	Percent of Total
AL	2.0%
AK	0.0%
AZ	3.4%
AR	1.1%
CA	6.9%
CO	1.7%
CT	0.8%
DE	0.0%
FL	5.4%
GA	3.4%
HI	0.7%
ID	0.8%

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	Percent of Total
IL	3.3%
IN	2.1%
IA	2.5%
KS	2.0%
KY	1.4%
LA	1.3%
ME	0.3%
MD	1.8%
MA	1.4%
MI	4.2%
MN	1.3%
MS	0.7%
MO	3.1%
MT	0.7%
NE	0.8%
NV	1.1%
NH	0.6%
NJ	1.3%
NM	0.8%
NY	3.0%
NL	3.1%
ND	0.8%
OH	5.5%
OK	1.3%
OR	1.4%
PA	3.8%
RI	0.1%
SC	1.3%
SD	0.3%
TN	2.4%
TX	9.8%
UT	0.6%
VT	0.0%
VA	2.4%
WA	3.3%
DC	0.0%
WV	0.4%
WI	3.0%
WY	0.4%

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## Appendix 2 (continued)

What is your ethnicity?

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	Percent of total
Caucasian-American (Non-Hispanic)	83.7%
African American	6.5%
Hispanic or Latino American	2.1%
Asian American	2.3%
Native American	2.0%
Other	2.0%
Chose not to disclose	1.4%

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Please check the range that includes your household income.

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	Percent of total
Under \$20,000	13.3%
\$20,000 – \$39,999	29.4%
\$40,000 – \$59,999	23.9%
\$60,000 – \$79,999	16.7%
\$80,000 – \$99,999	8.9%
Over \$100,000	7.8%

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