Consumers of Local Foods:

Civic Minded or Seeking Assurances?

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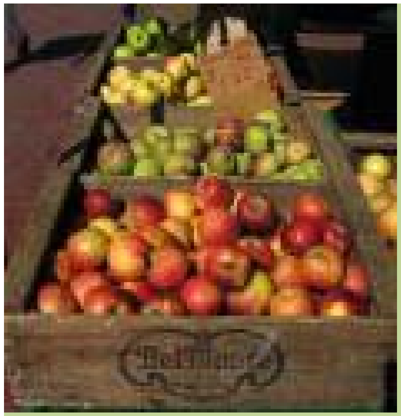
Overview

- Local food system gaining grounds
  - Increase number of farmers markets and CSAs
  - Locavores
- Conscious Consumers
  - Consumers making social statements with their purchase decisions
- Consumer studies and literature
  - Consumer perceptions, motivations and behavior
- Projects
  - Local produce consumer study (2006 to 2008)
  - Local, organic, and environment study (current)
- Summary and future research directions



Locavores: An Overview

- Local foods in the public eye
  - Locavores in literature and media
- Many potential factors driving consumer trends
  - Desire to reconnect with their food system
  - Better quality produce
  - Support for the local economy
- More broadly, what are private and public attributes consumers seek?

Conscious Consumer Research

- Strongly favorable responses to:
  - – Biodegradable (48% strongly favorable),
  - – Cruelty free (46%)
  - – Locally grown (45%),
    - Measure that falls dramatically for USDA Organic (26%).
- "Enlighteneds"
  - – the 10% of adult consumers who are most likely to purchase from companies that engage in socially responsible behaviors

BBMG Conscious Consumer Report, http://www.csrwire.com/News/12381.html

Enlighteneds

- Three times more likely than the average consumer to be early adopters
  - signaling that eco-friendly and local products will continue to gain an edge.
- Compared to average consumers, Enlighteneds expressed nearly double the strongly favorable responses for eco-labels:
  - Biodegradable (88% strongly favorable)
  - Cruelty free (87%)
  - Locally grown (85%) and USDA Organic (67%)

Consumer Behavior

- Product and site attributes are both important in the context of local
- Consumers are more savvy in using their money to make a public statement of activism and pursue “sustainable” consumption
  - Vermeir and Verbeke (2006), among others
- Farmers Markets role in enhancing “perceived consumer effectiveness” (PCE)
  - Introduced from consumer behavior psychology

Consumer Research Studies Overview

- Clusters of Fresh Produce Consumers (2008)
  - Little interest found on local
- Empirical Model of Produce Buyers who Buy Direct
  - Updated survey from Fall 2008
- Exploration of motivations to pay a premium for local, organic (or both)
- New project focused on dynamics between organic and local foods, consumer perceptions

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2006 CSU Organic Produce Study

Summary

- National Survey in May 2006
  - Conducted by NFO/My Survey, n=1549
  - Demographics fairly well aligned, dominated by female as directed to primary food shopper
- Cluster Consumers by Similar Buying Behavior and Motivations (1549 respondents)
  - Two clusters, Quality Assurance and Quality and Safety Consumers may be local buyers…
  - Local more highly valued than organic in all groups especially among these two cluster

Locavores Who Buy Direct

- *Direct occasionally* -50% of this survey's sample
  - *Direct always* accounts for up to 30%
- How are they defined?
  - Consumers who value vitamin content and freshness, with less concern for packaging are **more likely** to frequent farmers' markets and roadside stands.
  - Locally grown claims and relationships with producers also highly valued by *direct always*
  - Most demographics (income) were not important factors
    - Whites and those in the Mountain region buy more direct

Locavores and Information

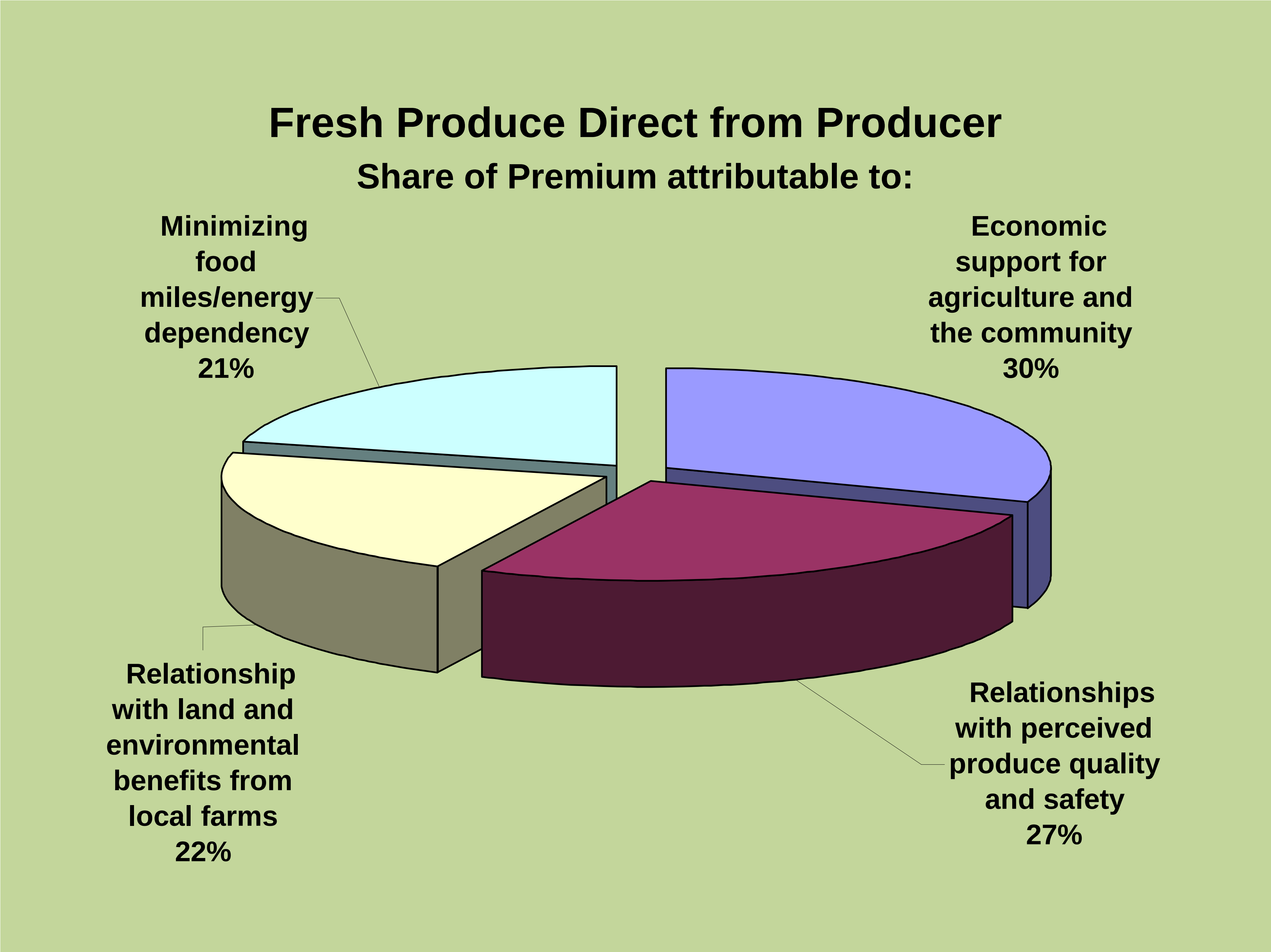
- Individuals who place greater importance on organic claims are **not more likely** to shop direct
  - May be due to the increasingly wide availability of organic produce in more traditional grocery stores
  - Relationships with producers may “proxy” for the information signal of 3rd party certification
- Sampling/demos, information booths, and electronic newsletters are the **preferred** promotion methods among direct buyers

Exploring Motivations

"You may not feel any healthier right away, but you'll definitely feel more smug."

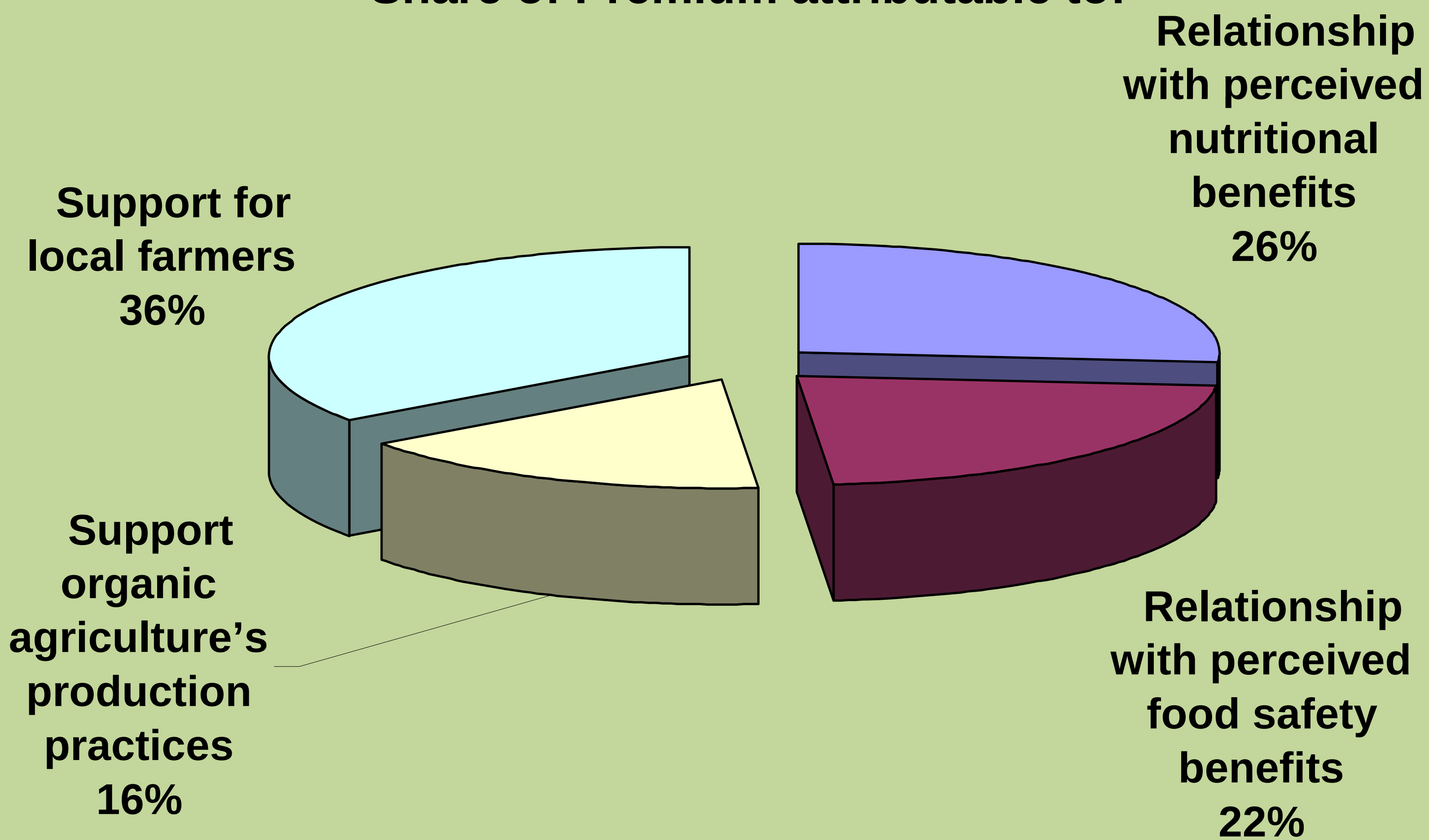
Motivators

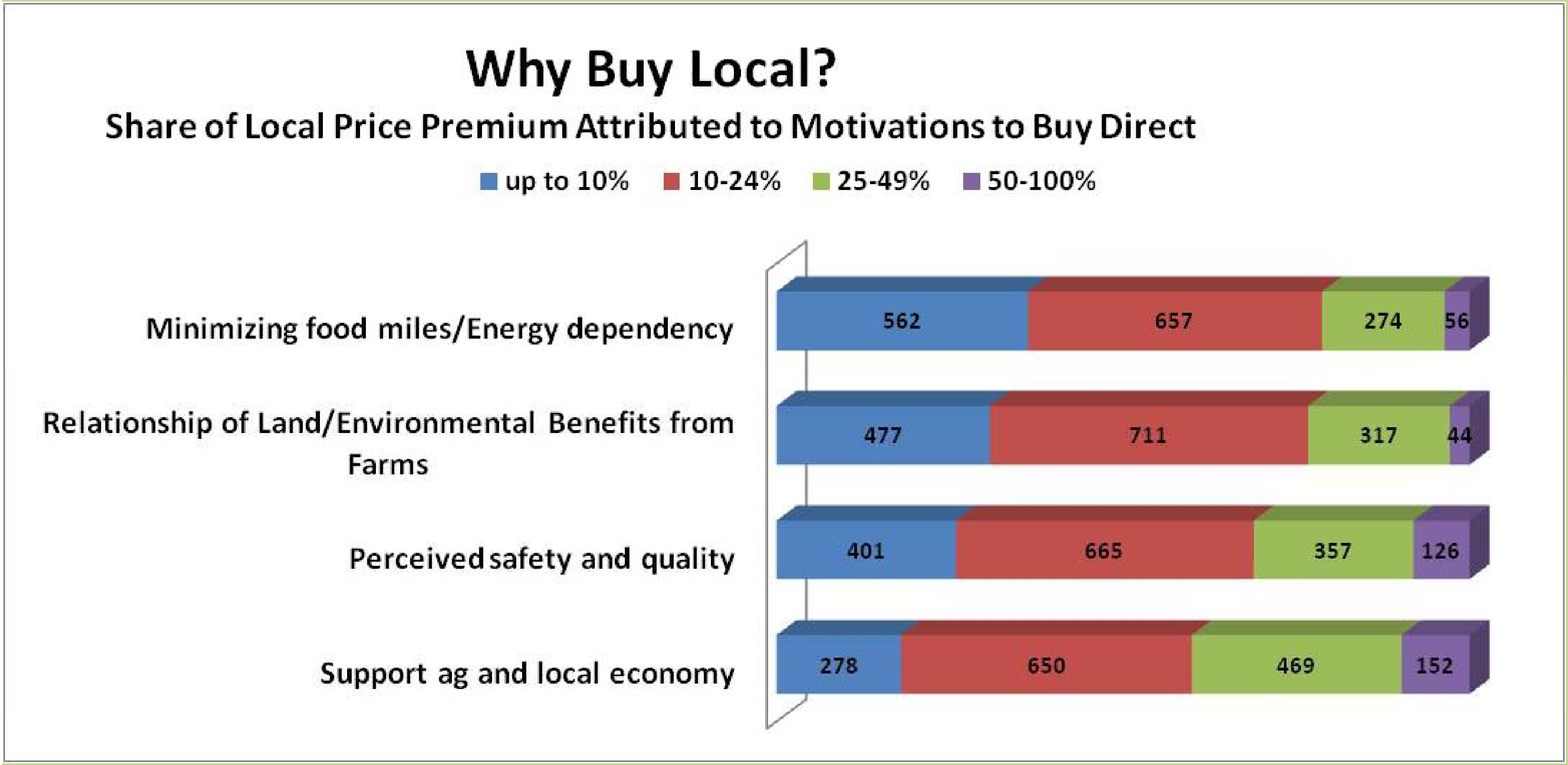
- Each consumer asked to assign share of premium attributable to various motivators
  - Local purchases as well as Organic & Produce with Unique Color
- There are both private and public good aspects presented as reasons they might pay a premium


Fresh Produce Direct from Producer
Share of Premium attributable to:
Minimizing food miles/energy dependency 21%
Economic support for agriculture and the community 30%
Relationship with land and environmental benefits from local farms 22%
Relationships with perceived produce quality and safety 27%

Fresh Produce production practices

Share of Premium attributable to:





Support for ag and local economy seems most important.
Food miles does not seem to be driving locavores.

Willingness to pay for melon

(base-priced at $0.59 per pound)

- One melon identified as “locally produced and sold direct by producer
  - Mean reported premium was 38.6%
- Importance of pesticide free & locally grown positively associated with local premia
  - But negative association with convenient location, packaging and value prices
  - The role of transaction costs: may alleviate credence information costs, but consumer may incur additional search costs

Why is Local Valued?

- Motivations/Perceived impacts:
  - Perceived economic support of agriculture
  - Relationship with land and environmental benefits
    - On average, willing to pay an extra 7.3% for the “local” attribute
- Some Heterogeneity among Direct Buyers
  - Value Country of Origin Labeling and Good Value
  - Might infer that Direct Buying lowers transaction costs for both these valued characteristics

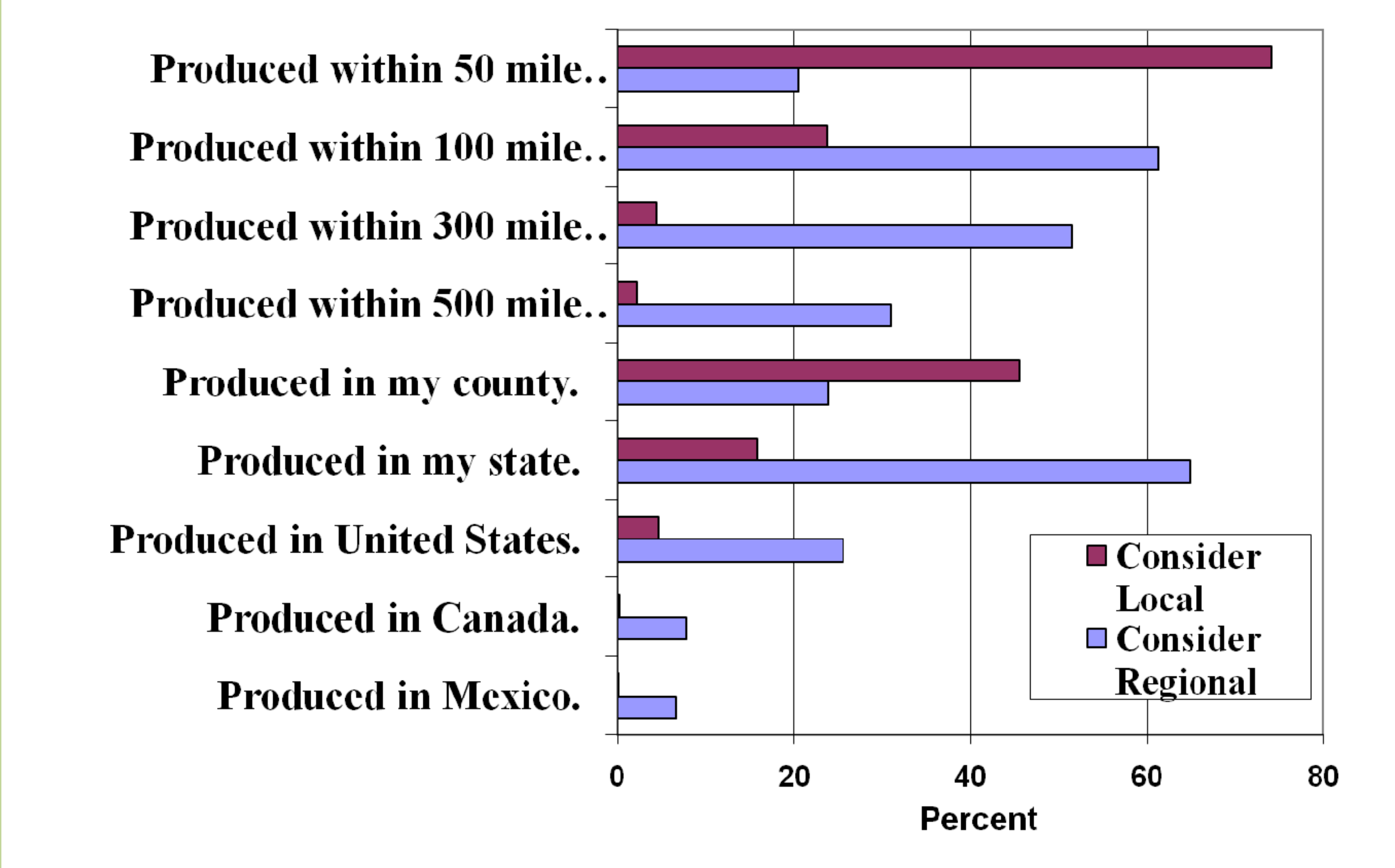
Organic, Locality, and Food Miles – Implications for Trade, Supply Chains, Environment, and Consumer Welfare

Yuko Onozaka and Dawn Thilmany McFadden

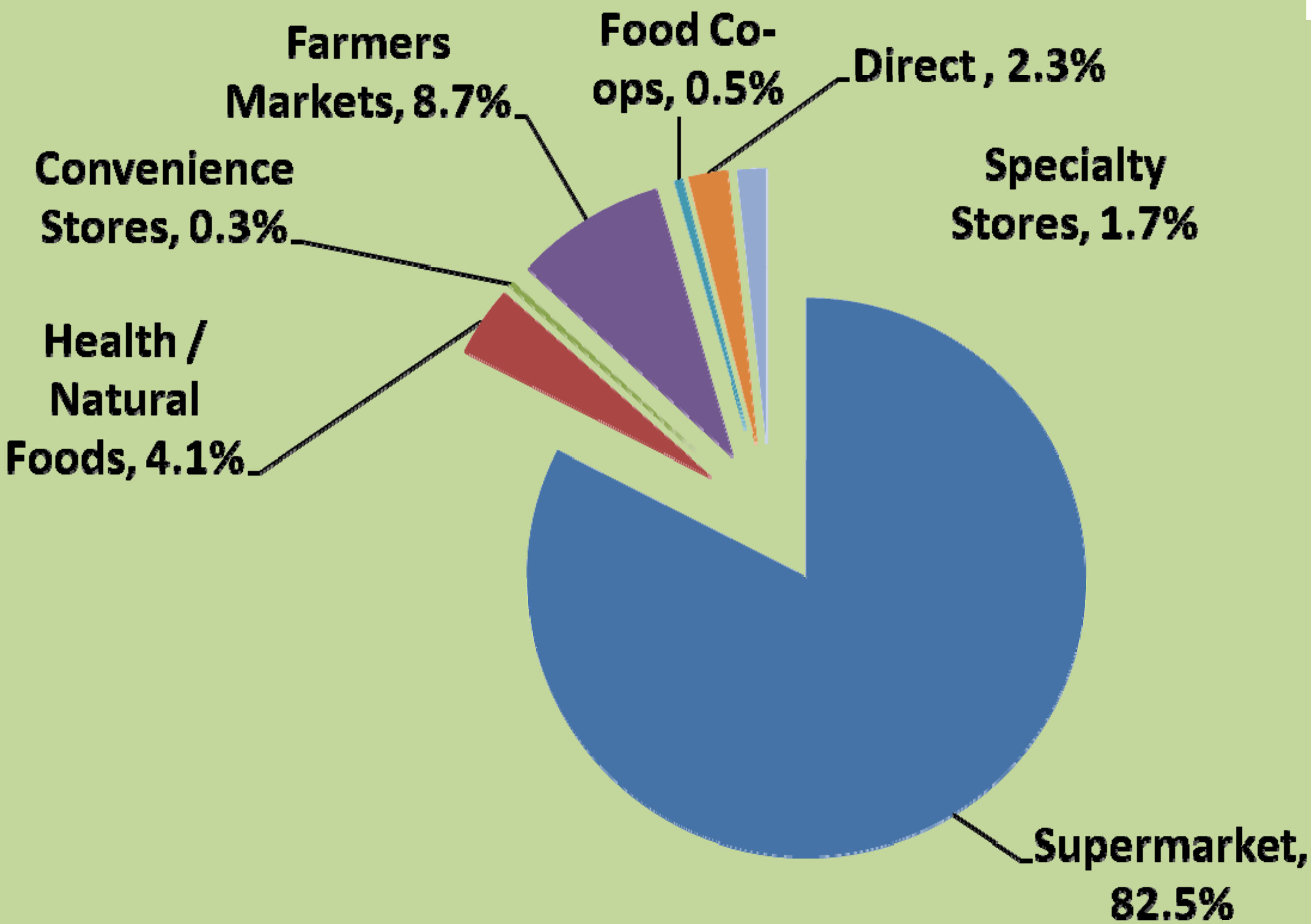
Initial Results for Fall 2008 Local Foods Survey

- Much higher penetration for local foods (over 80%), than organics (over 50%), with significant share buying both (over one-third)
- County and/or 100 mile radius seem to be majority perception of local
- Expense and availability as most commonly cited “barriers”

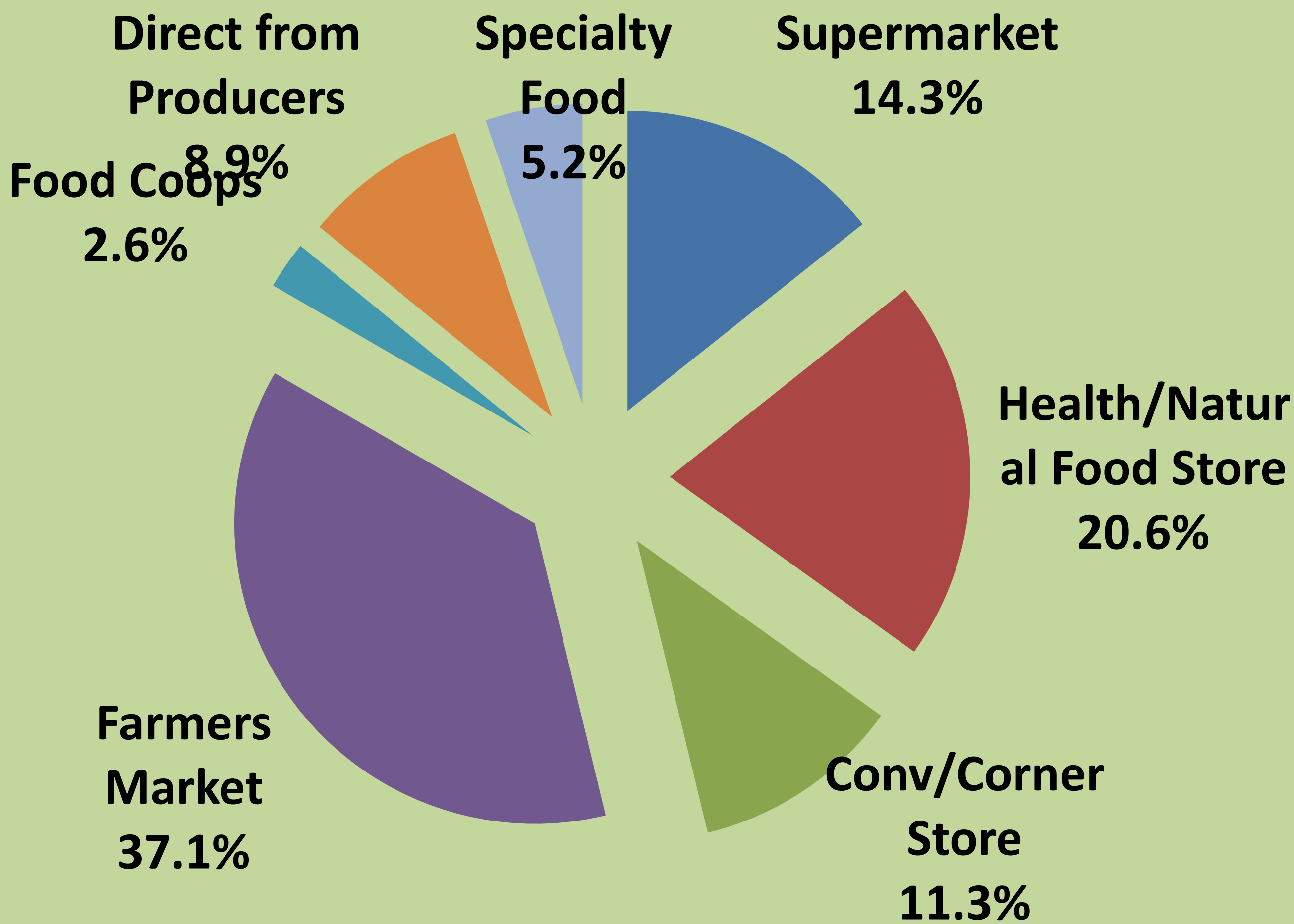
What is "Local"?

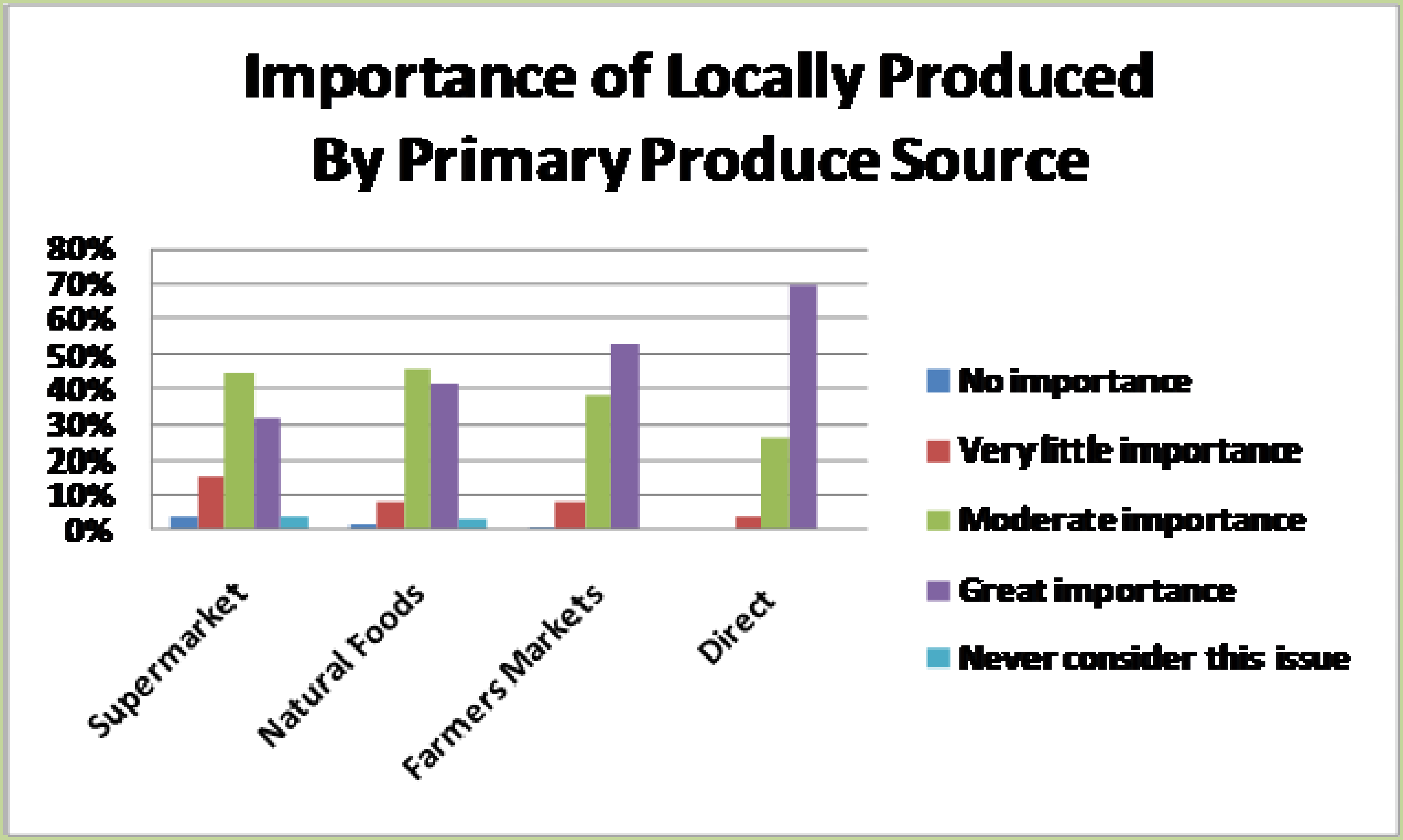


Primary Produce Source



Secondary Produce Source




Importance of Locally Produced
By Primary Produce Source
80%
70%
60%
50%
40%
30%
20%
10%
0%
Supermarket
Natural Foods
Farmers Markets
Direct
No importance
Very little importance
Moderate importance
Great importance
Never consider this issue

Perceived Consumer Effectiveness (PCE)

- Extent to which the consumer believes that their personal efforts can contribute to the solution of a problem.
  - Term from consumer psychology literature
  - May have an association with public goods (nonexclusivity and tragedy of the commons)
- High perceived consumer effectiveness is necessary to translate positive attitudes toward product into actual purchase.

(Vermeir & Verbeke, 2006)

PCE Measures across Outcomes

Dimension	Mean	SD
Health	5.43	1.40
Impact local economy	5.08	1.36
Positive effect on society	4.74	1.52
Positive impact on environment	4.33	1.56
Statement for social fairness	4.09	1.57

- Reliability to evaluate scale:
- Cronbach's alpha=.87
- Creating PCE from average on 5 dimensions

Relationship with Local and Direct Markets

- PCE score related to where a consumer shops for produce
  - Primary, secondary, seasonal, never shop
- We may expect that credibility or assurances inherent to the source of purchase would play a role in buying decisions
  - Mitigates some information asymmetry

Customer PCE score by Primary Source of Fruits and Veggies

Location	N	PCE Mean	S.D.
Food Co-op	**5**	**6.28**[a]	**1.03**
Specialty (gourmet)	16	5.44	1.24
Health/natural foods	**42**	**5.31**[a]	**1.15**
Farmers Market	**88**	**5.14**[a]	**1.10**
Convenience Store	3	5.13	.503
Direct from producer	22	4.92	1.87
Supermarket	**831**	**4.63**[b]	**1.14**

$F(1,6)=7.38$, $p<.01$, $eta^2=.042$

PCE level & seasonal fresh produce source

Location	*B* (SE)	t-statistic
Constant (NA)	4.39 (.072)	60.731**
Farmers Market	**.424 (.098)**	**4.33****
Direct from producer	**.407 (.098)**	**4.14****
Food Co-ops	**.633 (.162)**	**3.91****
Convenience Store	.333 (.137)	2.43*
Health/natural food	.261 (.118)	2.20*
Specialty (gourmet)	.315 (.159)	1.97
Supermarket	.381 (.273)	1.40

*p<.05, **p<.01

Valuing Local Foods

	LEVELS	
ATTRIBUTES	Gala Apples	Red Round Tomatoes
Product Origin	Locally Grown	Locally Grown
	Grown in Washington	Grown in CA/FL
	Product of Chile	Product of Canada
		Product of Mexico
Certified Organic	Uncertified	Uncertified
	USDA Organic	USDA Organic
Certified Fair Trade	Uncertified	Uncertified
	Certified Fair Trade	Certified Fair Trade
Carbon Footprint	60g/lb	100g/lb
	120g/lb	800g/lb
	180g/lb	1500g/lb
Unit Price	$1.49, $1.89, $2.29, $2.69, $3.09, $3.49	$1.49, $1.89, $2.29, $2.69, $3.09, $3.49

Sample Choice Set

Apple 1	Apple 2	
		
$2.69/lb	**$3.49/lb**	
Product of Chile	Locally Grown	
USDA ORGANIC; Carbon 60g/lb	Fair Trade; Carbon 120g/lb	
I will buy this apple. ☐	I will buy this apple. ☐	Neither. ☐

Initial WTP Estimates
($ per lb)

		Certified Organic	Certified Fair Trade	Carbon Footprint	Locally Grown	Imported
Gala Apples	**Mean**	**0.14**	**0.17**	**-2.85**	**0.16**	**-0.67**
	Median	0.07	0.19	-3.04	0.14	-0.63
	St. Dev.	0.40	0.18	1.82	0.25	0.72
	Maximum	1.52	0.60	2.25	0.85	0.72
	Minimum	-1.13	-0.26	-8.95	-0.46	-2.27
	N	527	527	527	527	527
Red Round Tomatoes	**Mean**	**0.29**	**0.13**	**-0.37**	**0.17**	**-0.56**
	Median	0.28	0.14	-0.33	0.15	-0.55
	St. Dev.	0.29	0.21	0.34	0.37	0.44
	Maximum	1.21	0.68	0.40	1.19	0.51
	Minimum	-0.66	-0.35	-1.42	-0.84	-2.01
	N	554	554	554	554	554

More Survey Results

- Food miles is not commonly known term (less than 20%) while carbon footprint and climate change well known (over 60%)
- Assurances on “outcomes” (preserving farmland, fair returns to producers, supporting local economy) were of greater interest than broader claims (organic, local)
- Local does well in perceptions on support of local economy, but fairly ambiguous in terms of carbon footprint

Marketing and Policy Implications

- Diverse consumer perspectives and buying behavior within local, direct markets
  - Not closely aligned with organic movement
  - 3rd party vs. Direct from source verification?
  - Support for ag and local economy and perceived environmental benefits
- Will farmers markets grow or will conventional supply chains try to emulate their culture of producer interactions?

Future Directions for Local Foods Research

- Exploring the mixed public and private good aspects of food products and shopping venues
  - A new perspective on search, experience and credence attributes
- What role do farmers markets and other direct venues have in the dynamics of the food supply chain?
  - Food safety, energy prices and traceability are all very hot topics in the food industry currently
- How could future marketing/certification effectively leverage and verify these consumer perceptions to secure value?

Appendix

Fall 2008 Survey

- Administered October 17 to November 20, 2008 by Knowledge Network Inc., a contracted third party.
  - 1,269 people in consumer panel solicited; 1052 usable responses. Oversampled people in intermountain region (CO, AZ, UT)

	Supermarket	Health/Natural Foods	Farmers Markets	Direct	Overall
$0 - $20	67%	42%	63%	74%	65%
$21 -$40	23%	27%	24%	17%	23%
$41 - $60	7%	15%	5%	9%	7%
$61 - $80	3%	8%	3%	0%	3%
$81 - $100	0%	2%	0%	0%	0%
> $100	1%	6%	4%	0%	1%

Income by Primary Produce Source

	Supermarket	Natural Foods	Farmers Markets	Direct
<$25,000	19.0%	12.5%	26.1%	21.7%
$25,000-$39,999	18.2%	21.9%	20.7%	8.7%
$40,000-$74,999	35.3%	20.3%	32.6%	39.1%
$75,000-$124,999	19.8%	31.3%	13.0%	17.4%
>$125,000	7.9%	14.1%	7.6%	13.0%

Data and Methods

- 2006 National Consumer Survey conducted by National Family Opinion (NFO)
  - – 1549 responses, 48.86% response rate
  - – May 2006, may be some seasonal bias
- Demographic data as well as purchasing habits and attribute preferences for food and produce
  - Fairly representative, low on Hispanic buyers

Summary Statistics for the 2006 Survey

Table 1. Summary Statistics for the Demographic Variables (n = 1549)

Variable Name	Description (Coding)	Mean	Standard Deviation
Age	In years	51.07	14.70
Gender	1 if female, 0 if male	0.74	0.44
Weekly Grocery Expenditures	1 = < \$50, 2 = \$50 - \$99 3 = \$100 - \$149 4 = \$150 - \$199 5 = \$200 - \$299 6 = \$300 or more	2.36	1.01
Market Size (persons)	1 = Under 100,000 2 = 100,000 - 499,999 3 = 500,000 - 1,999,999 4 = 2,000,000 and over	3.03	1.08
Household Income	1 = < Under \$30,000 2 = \$30,000 - \$49,999 3 = \$50,000 - \$74,999 4 = \$75,000 and Over	2.49	1.17
Race	1 if Caucasian, 0 if otherwise	0.90	0.30
Spanish Origin	1 if Spanish Origin, 0 if otherwise	0.03	0.16
Household Size	Actual number in household, range: 1 to 7 members	2.41	1.34
Life Stage	1 if single, no children, 0 otherwise	0.26	0.44
	1 if couple, no children, 0 otherwise	0.40	0.49
	1 if couple, at least one child in household	0.32	0.47

Label Descriptions

Label	Name	Current Status
	Certified Organic What does it mean?	Exists
	Certified Fair Trade What does it mean?	*International*: Exists *Domestic*: Under consideration
	Carbon Footprint Carbon emission level (grams of carbon emissions per pound of product) **Larger number means *more damages* to the environment** What does it mean?	Under consideration