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SARE Sustainable Agriculture Research & Education

Southern Vegetable Buyers' Perceptions of the Social and Environmental Attributes Associated with Organic, Certified Naturally Grown and Locally Grown Labels

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Project title: Economic Benefits and Marketing Implications of Co-Labeling Strategies for Small Organic Producers

Acknowledgement of partners

Professional organizations:

- Athens Land Trust
- Augusta Locally Grown
- Georgia Organics

Growers:

- Crystal Organic Farm
- White Hills Farm
- Adderson Inc.
- Little Rose Farm
- Jones Creek Farms
- Lola's Organic Farm
- Brown's Place Farm
- J and L Farm and Stables
- Byne Blueberry Farms
- Rodgers Greens and Roots (RGR)
- Hearts of Harvest Farm

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Agenda

- Introduction
- Methodology
- Results
- Conclusion

Introduction

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Research objectives

- **To estimate consumers' perceptions, intention to purchase and willingness to pay** using several co-labeling strategies and to determine resulting market segments. These scenarios will serve as inputs for analytical approaches in the third objective.
- **To evaluate communication content effectiveness** in conveying sustainable values for various labels (i.e. Georgia Organics, Georgia Grown and other specific "locally grown" programs), to determine market coverage effectiveness in terms of direct marketing channels accessed (i.e. farmers' markets, CSAs, and online), and to gauge geographical reach (within Georgia and surrounding states).
- **To determine comparative net economic returns** that producers may realize under co-labeling strategies and for different produce (entreprise budget, projections and simulations).

Expected outcomes for Objective 1

1. A further understanding of consumers' perceptions and interpretation of the information conveyed by several co-labeling strategies.

2. Increased knowledge about consumers' intention to purchase attached to these co-labeling strategies.

3. The economic value and willingness to pay of consumers for various food labels will be determined.

4. Identification of relevant socio-demographic consumer profiles that Georgia producers, especially small organic farmers, could identify as their target market.

Literature background

- Buyers' preferences:
  - Certification of production practice, e.g., USDA certified organic
  - Origin, e.g., locally grown
  - Claims, e.g., naturally grown
- Background findings:
  - "No pesticides", "no fertilizer", and "non-GMO" associated with Organic
  - "No antibiotics", "no artificial additives, preservatives or artificial flavors, colors or sweeteners" associated with the "natural" claim.
  - "Locally grown" substitute for Organic
- Assumption:
  - These attributes (impacting preferences and purchase) are mainly the outcome of contextual considerations rather than a more objective and holistic understanding of certification standards.

Literature background

- Questions:
  - Actual and precise environmental and social outcomes expected from farmers following standards of certification?
  - Evaluation of co-labeling strategies?

- Main references

  - Bissinger, K., & Herrmann, R. (2021). Regional Origin Outperforms All Other Sustainability Characteristics in Consumer Price Premiums for Honey: Empirical Evidence for Germany. Journal of Economic Integration, 36(1), 162–184. https://www.jstor.org/stable/26985580
  - Van Anh Truong, Bodo Lang, Denise M. Conroy (2021). Are trust and consumption values important for buyers of organic food? A comparison of regular buyers, occasional buyers, and non-buyers. Appetite, Volume 161, 13 p. https://doi.org/10.1016/j.appet.2021.105123
  - Kia Ditlevsen, Sigrid Denver, Tove Christensen, Jesper Lassen (2020). A taste for locally produced food - Values, opinions and sociodemographic differences among 'organic' and 'conventional' consumers. Appetite, Volume 147, 11 p. https://doi.org/10.1016/j.appet.2019.104544

Methodology

Methodology

- Assessing buyers' **perceptions on attributes associated with** three labels: USDA Organic, Certified Naturally Grown and locally grown.

- **Online survey (Qualtrics panel) with 1817 respondents across six southern states** (Georgia, Alabama, Florida, N Carolina, S Carolina, Tennessee), Winter 2022-23.

- **Test 8 social and environmental attributes:**

Social	Better at providing fair wages and standard of living Better at supporting a community's economy by buying local and employing local Better at educating the public Better at increasing food access and security
Environmental	Better at preserving and managing soils Better at avoiding water and energy waste Better at preserving biodiversity Better at composting, recycling and upcycling

- **Likert scale 0 to 10**
- **3 blocks**
  - **Block 1: Individual label evaluation,** 24 questions (3 labels x 8 values), 6 questions randomly assigned to each respondent
  - **Block 2: Comparison of labels,** 24 questions (3 combination of labels x 8 values), 6 questions randomly assigned to each respondent
  - **Block 3: Combination of labels,** 16 questions (2 combination of labels x 8 values), 4 questions randomly assigned to each respondent
- **Statistical and cluster analysis**

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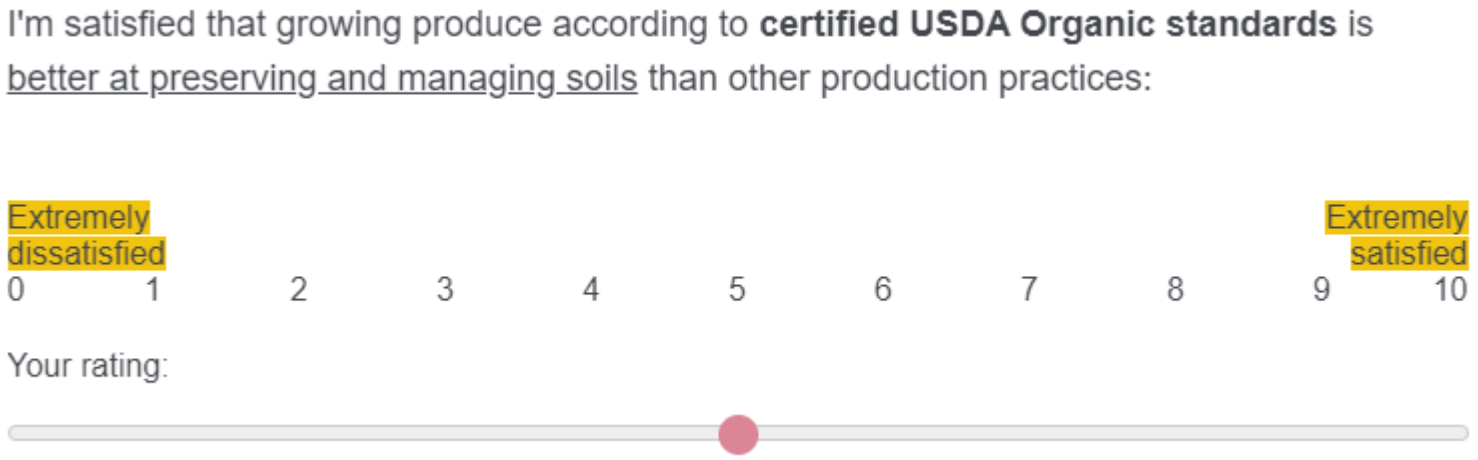
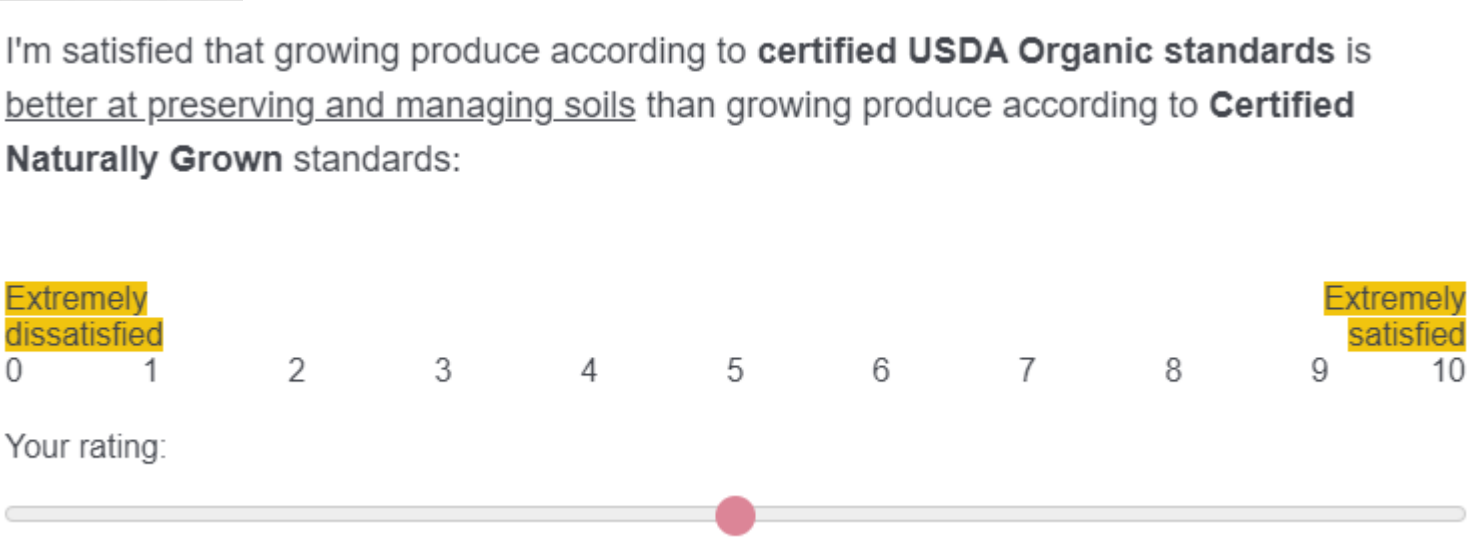
Methodology (2)

- Example of questions
  - Individual evaluation:



  - Comparison:



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Profile of Respondents

Age	All 6 states
≤ 1945 (Traditionals) & 1946 - 1964 (Boomers)	23.4%
1965 - 1980 (Gen X)	23.9%
1981 - 1996 (Gen Y)	30.6%
≥ 1997 (Gen Z)	22.1%
Gender	
Male	42.9%
Female	55.9%
Non-binary, gender-fluid, agender…	0.7%
Prefer not to answer	0.5%
Ethnicity	
White/Caucasian	66.8%
African American	24.4%
Hispanic or Latino	6.4%
Asian	2.4%
Native American	2.7%
Native Hawaiian or Pacific Islander	0.4%
Other	1.7%

Education level	
Less than high school diploma	5.0%
High school diploma or GED	28.7%
Some college	23.9%
2-year college degree	12.5%
4-year college degree	18.2%
Master's degree	8.5%
Doctoral degree	1.4%
Professional degree (JD, MD)	1.7%
Income	
< $20,000	17.7%
$20,000 - $49,999	35.5%
$50,000 - $79,999	20.7%
$80,000 - $99,999	8.1%
$100,000 - $149,999	9.4%
$150,000 - $249,999	3.8%
≥ $250,000	0.6%
Prefer not to answer	4.1%
Living area	
Rural	36.9%
Suburban	43.9%
Urban	19.2%

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Profile of Respondents (2)

- **Place of purchase (produce) – Multiple choice**
  - 68.7% at a major supermarket
  - 60.0% at a local grocery store
  - 29.3% at a local farmers' market
  - 10.6% at a convenience store
  - 5.6% online farmers' market
  - 2.5% CSA
  - 12.6% grow their own produce
- **Responsibility of shopping**
  - 69.5% primary shoppers and 21.6% shared equally
- **Frequency and amount of purchase directly from farmers**
  - 10.7% purchase once or more than once a week, and 15.3% once or twice a month
  - 21.7% spend less than $50 per week and per household, and 9% spend between $50 and $100

- **Purchase and certifications**

	Organic	CNG
Once a week or more	10.0%	10.6%
Once or twice a month	11.4%	13.6%
Less than once a month	5.7%	4.8%
Never	5.7%	3.9%

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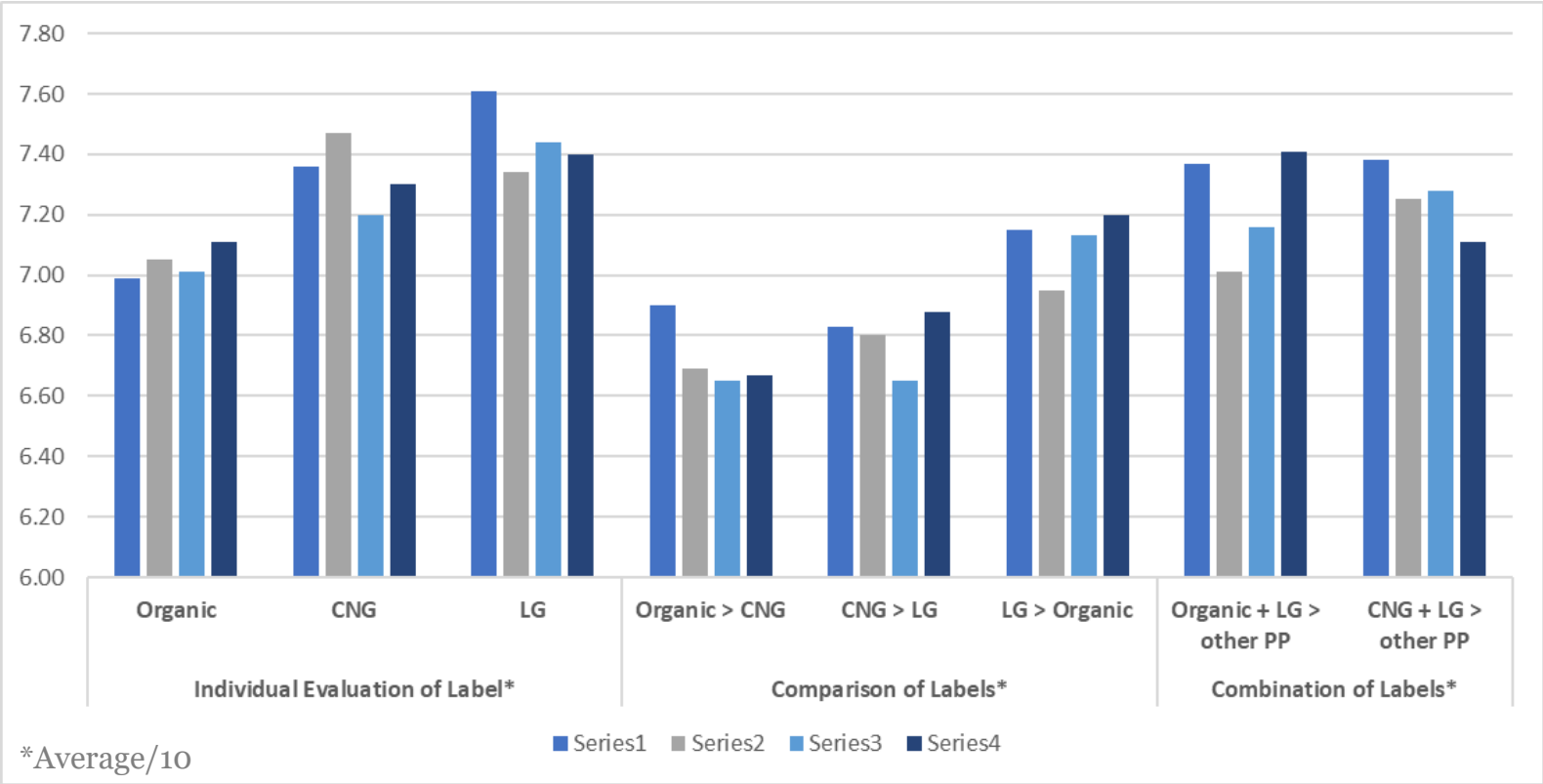
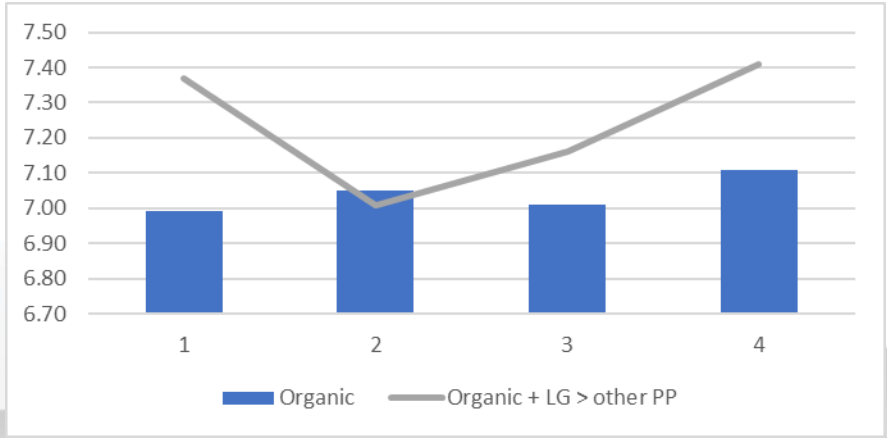
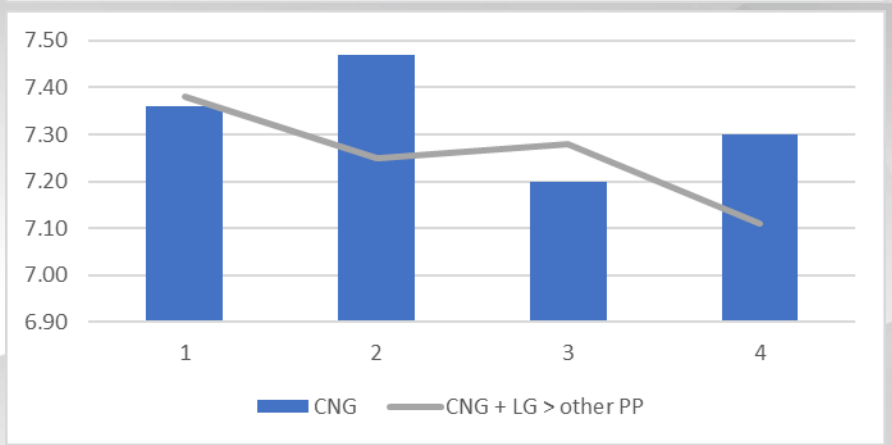
Results

Results – Environmental attributes



*Average/10





Series1	Better at preserving and managing soils
Series2	Better at avoiding water and energy waste
Series3	Better at preserving biodiversity
Series4	Better at composting, recycling and upcycling

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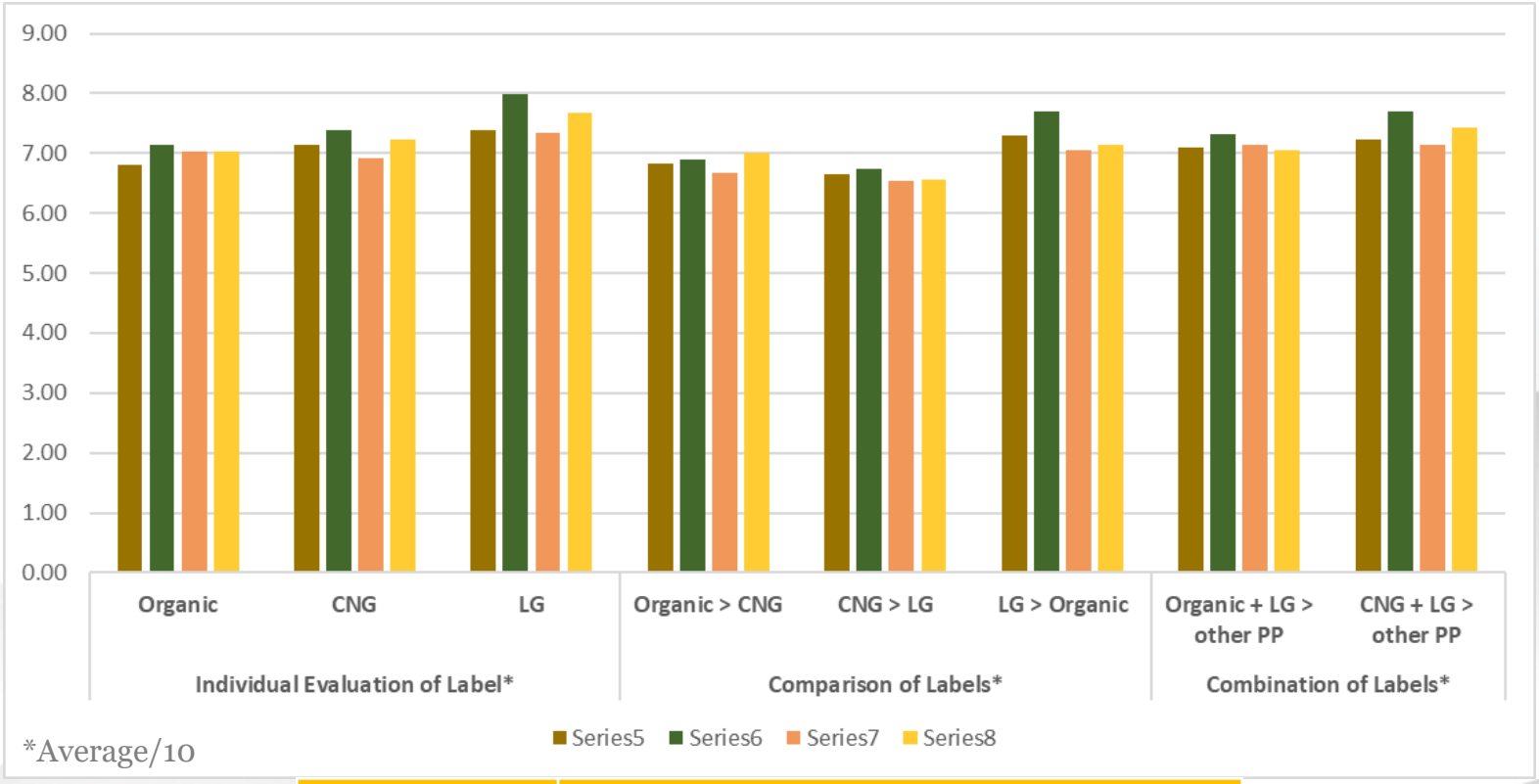
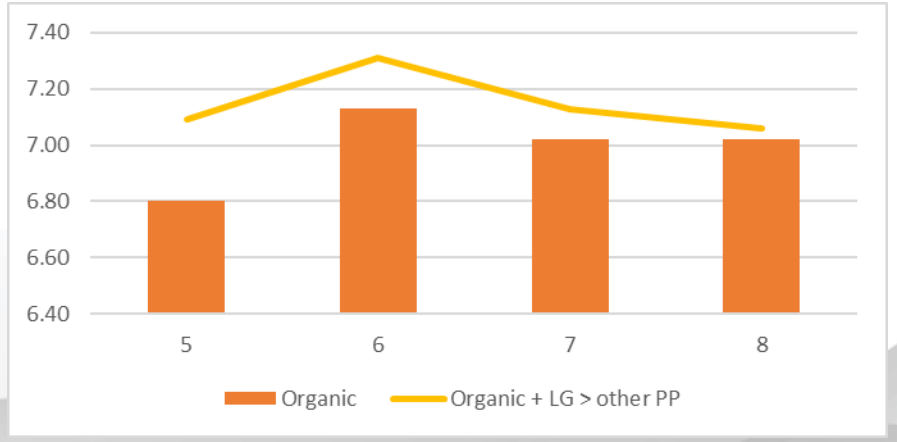
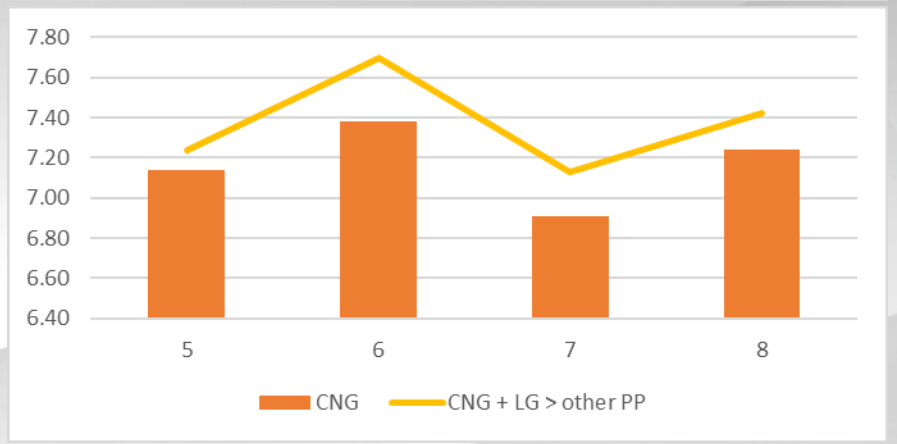
Results – Social attributes



*Average/10





Series5	Better at providing fair wages and standard of living
Series6	Better at supporting a community's economy by buying local and employing local
Series7	Better at educating the public
Series8	Better at increasing food access and security

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Results – Cluster analysis

- **Dependant variables**: Average of the 8 attributes for co-labeling: 1. Organic + LG, and 2. CNG + LG
- **Explanatory variables**: Age, Income, # of children, and area of living.

- **Importance of X variables** for each cluster analysis:

Organic + LG		CNG + LG	
Income	85.4%	Age	85.4%
Area	14.9%	# of children	39.8%
# of children	10.7%	Area	15.4%
Age	10.6%	Income	9.8%

Results – Cluster analysis

Organic+LG All attributes	Cluster 1: Higher rating		Cluster 2: Lower rating	
< $20,000	ΛΛΛ	28.9%	VVV	0.0%
$20,000 - $49,999	VVV	0.0%	ΛΛΛ	100.0%
$50,000 - $79,999	ΛΛΛ	34.2%	VVV	0.0%
$80,000 - $99,999	ΛΛΛ	13.4%	VVV	0.0%
$100,000 - $149,999	ΛΛΛ	15.7%	VVV	0.0%
$150,000 - $249,999	ΛΛΛ	6.7%	VVV	0.0%
≥ $250,000	Λ	1.1%	V	0.0%
Rural	VV	32.8%	ΛΛ	40.7%
Suburban	ΛΛ	48.2%	VV	40.5%
Urban		19.0%		18.8%
0 children		58.4%		63.1%
1-2 children		32.3%		30.7%
3-6+ children	Λ	9.2%	V	6.2%
≤ 1945 (Traditionals)		2.0%		3.4%
1946 - 1964 (Boomers		21.7%		21.3%
1965 - 1980 (Gen X)		25.5%		22.8%
1981 - 1996 (Gen Y)		30.3%		29.0%
≥ 1997 (Gen Z)		20.7%		23.5%

CNG+LG All attributes	Cluster 1: Lower rating		Cluster 2: Higher rating	
≤ 1945 (Traditionals)	ΛΛΛ	3.6%	VVV	0.0%
1946 - 1964 (Boomers)	ΛΛΛ	30.0%	VVV	0.0%
1965 - 1980 (Gen X)	ΛΛΛ	34.7%	VVV	0.0%
1981 - 1996 (Gen Y)	VVV	0.0%	ΛΛΛ	100.0%
≥ 1997 (Gen Z)	ΛΛΛ	31.7%	VVV	0.0%
0 children	ΛΛΛ	70.3%	VVV	37.6%
1-2 children	VVV	24.0%	ΛΛΛ	48.6%
3-6+ children	VVV	5.7%	ΛΛΛ	13.8%
Rural		36.6%		36.2%
Suburban	Λ	46.9%	V	40.3%
Urban	VV	16.5%	ΛΛ	23.5%
< $20,000		18.4%		18.0%
$20,000 - $49,999		36.5%		35.5%
$50,000 - $79,999		22.1%		20.3%
$80,000 - $99,999		8.1%		9.9%
$100,000 - $149,999		9.4%		11.8%
$150,000 - $249,999		4.8%		3.7%
≥ $250,000		0.7%		0.9%

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Conclusion

On-going discussion: **role of information through labeling/co-labeling strategies**:

- Overall, **"locally Grown" gets better rating** for the 8 social and environmental attributes tested compared to USDA Organic and Certified Naturally Grown.
- A **combination of indication** of "local" origin and a well-known production practice certification such as CNG or USDA Organic seem to translate into higher rating than individual labels.
- **Higher quality of information on production practices** is recommended to increase the buyers' knowledge and trust of these practices.

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Questions?

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