



Exploring the Awareness and Performance of the
Local Food Branding Programs in Different
Communities of the U.S. South

Azita Varziri

Tim Woods

Introduction & Research Goals



Local food branding labels help consumers to recognize locally grown Products.

We developed a survey and analysis to:

- Measuring the awareness of local food branding programs and Identify factors that most influence the awareness of these programs in different communities.
- Identify key determinants that can affect the performance of various local food branding programs in different communities.



**Surveys
Methods &
Locations**

Measuring Awareness and Performance of Local Food Branding Programs:

- Residents rate functioning/performance of Local food branding programs
- Ratings on a 0 (Do Not Know) to 5 (Excellent) scale

Branding Components:

- Identifiable farm brand
- State Brand
- Local buying campaigns

Surveys Methods & Locations



Smaller Communities	Medium- Sized Communities	Larger Communities
Edgecombe County, NC	Upstate South Carolina	Nashville, TN
Boyd County, KY	Catawba, SC	Louisville, KY
Clark County, KY	Little Rock, AR	Raleigh, NC
	Knoxville, TN	Columbia, SC
	Montgomery, AL	Baton Rouge, LA
	Chapel Hill, NC	
	Durham, NC	

- 13537 surveys were sent to residents through mail and online recruitment
- We received 4537 usable responses



Methods & Analysis

Probit Model:

- Dividing responses to [Do not know]=0 and [(Very Poor=1) to (Excellent=5) scale]=1
 - Awareness of local food branding program = $f(\text{demographic variables})$

Generalized Ordered Logistic Regression

- Leaving out [Do not know] responses and considering [1-5] responses in the model
 - Performance of local food branding program = $f(\text{demographic variables})$

Results

	Smaller Communities (N=970)	Medium-Sized Communities (N=1265)	Larger Communities (N=2183)
Male	33%	30%	33%
Age	53.5	47.0	47.0
Income (* \$1,000.00)	66.5	72.1	79.4
Under 50K	45%	43%	35%
50-99K	36%	34%	39%
100-149K	13%	15%	15%
150-199K	4%	5%	6%
Over 200K	2%	3%	4%
Education			
Less than high school	4%	4%	3%
High school	28%	25%	25%
2-year degree	24%	18%	19%
4-year degree	23%	28%	30%
Graduate or professional degree	21%	24%	23%
Years of residence	18.6	15.8	17.1
Renter-Owner			
Renter	23%	31%	32%
Interest Level			
High	43%	36%	29%
Awareness of Local Food Branding Programs			
Identifiable Farm Brand	78%	78%	79%
State Brand	78%	75%	81%
Local Buying Campaign Program	66%	66%	67%

Results

Probit Model	Identifiable Farm Brand		State Brand		Local Buying Campaign	
	Awareness	Marginal Effect	Awareness	Marginal Effect	Awareness	Marginal Effect
Age	-0.009*** (0.002)	-0.002*** (0.000)	-0.011*** (0.002)	-0.003*** (0.000)	-0.007*** (0.001)	-0.003*** (0.000)
Men	0.175*** (0.055)	0.046*** (0.014)	0.091 (0.055)	0.024* (0.014)	0.258*** (0.050)	0.087*** (0.016)
Income	0.001*** (0.000)	0.0003*** (0.0001)	0.001*** (0.000)	0.0003*** (0.0001)	0.001*** (0.000)	0.0004*** (0.000)
Local Food Interest (High)	0.543*** (0.056)	0.136*** (0.013)	0.420*** (0.055)	0.105*** (0.013)	0.259*** (0.048)	0.088*** (0.016)
Size						
Small	-0.077 (0.068)	-0.022 (0.019)	-0.222*** (0.069)	-0.059*** (0.019)	-0.052 (0.061)	-0.018 (0.021)
Medium	0.154** (0.076)	0.040** (0.019)	-0.196*** (0.071)	-0.052*** (0.019)	-0.095 (0.067)	-0.032 (0.022)
Race (White)	-0.088 (0.060)	-0.023 (0.016)	0.037 (0.060)	-0.010 (0.016)	-0.282*** (0.055)	-0.095*** (0.018)
Years of Residency	0.010*** (0.003)	0.003*** (0.001)	0.009*** (0.003)	0.002*** (0.001)	0.010*** (0.002)	0.004*** (0.001)
Renter	-0.144** (0.059)	-0.040** (0.017)	-0.218*** (0.059)	-0.060*** (0.017)	-0.095* (0.054)	-0.033* (0.019)
States (Louisiana=Base)						
Arkansas	-0.438*** (0.144)	-0.124*** (0.042)	-0.064 (0.149)	-0.014 (0.032)	-0.476*** (0.132)	-0.162*** (0.045)
South Carolina	-0.231** (0.101)	-0.061** (0.026)	-0.236** (0.106)	-0.024** (0.106)	-0.369*** (0.093)	-0.123*** (0.298)
North Carolina	-0.084 (0.101)	-0.021 (0.025)	-0.299*** (0.104)	-0.072*** (0.024)	-0.316*** (0.092)	-0.104*** (0.029)
Tennessee	-0.097 (0.105)	-0.024 (0.046)	-0.516*** (0.107)	-0.135*** (0.026)	-0.194** (0.096)	-0.062** (0.030)
Alabama	-0.356** (0.159)	-0.356** (0.159)	-0.426*** (0.156)	-0.108*** (0.042)	-0.283** (0.146)	-0.092* (0.049)
Kentucky	-0.119 (0.102)	-0.030 (0.025)	-0.140 (0.108)	-0.031 (0.023)	-0.261*** (0.093)	-0.084*** (0.029)
Constant	1.009*** (0.134)		1.376*** (0.138)		0.858*** (0.122)	

***, **, * indicate significance at 1%, 5%, and 10% levels. Reference variables: local food interest low, large communities, other races, and Louisiana

Results

Brant Test	Identifiable Farm Brand	State Brand	Campaign
All	215.82***	196.67***	234.98***
Age	18.92***	3.24	20.96***
Men	1.99	2.26	1.44
Income	5.42	0.34	0.59
Local Food Interest (High)	94.12***	96.61***	127.86***
Small Communities	14.24***	15.93***	6.52*
Medium Communities	7.39*	4.36	4.10
Race (White)	5.44	2.76	11.61***
Renter	0.28	3.97	2.07
Arkansas	15.21***	2.74	4.52
South Carolina	15.71***	0.43	3.73
North Carolina	17.78***	10.36**	9.43**
Tennessee	12.04***	4.86	7.18*
Alabama	12.18***	2.1	1.81
Kentucky	9.53**	3.89	3.19

Results

Generalized Ordered Logit Model (Performance)	1	2	3	4
Identifiable Farm Brand	Coefficient	Coefficient	Coefficient	Coefficient
Age	0.007 (0.004)	0.004 (0.003)	0.001 (0.002)	-0.015*** (0.004)
Men	0.035 (0.075)	0.035 (0.075)	0.035 (0.075)	0.035 (0.075)
Income	-0.001** (0.001)	-0.001** (0.001)	-0.001** (0.001)	-0.001** (0.001)
Local Food Interest (High)	-0.210 (0.147)	0.142 (0.091)	0.742*** (.080)	1.379*** (0.128)
Community Size (Large=Base)				
Small	-1.231*** (0.185)	-1.188*** (0.114)	-0.813*** (0.119)	-0.557*** (0.188)
Medium	-0.535** (0.255)	-0.022 (0.142)	0.074 (0.115)	0.071 (0.166)
Race (White)	0.039 (0.082)	0.039 (0.082)	0.039 (0.082)	0.039 (0.082)
Renter	0.188** (0.083)	0.188** (0.083)	0.188** (0.083)	0.188** (0.083)
Louisiana (Base)				
Arkansas	1.529*** (0.429)	0.102 (0.242)	-0.125 (0.242)	-0.540 (0.505)
South Carolina	1.420*** (0.228)	0.875*** (0.160)	0.544*** (0.170)	1.002*** (0.324)
North Carolina	2.139*** (0.283)	1.274*** (0.164)	0.914*** (0.163)	1.117*** (0.314)
Tennessee	1.463*** (0.283)	0.735*** (0.168)	0.528** (0.166)	0.825*** (0.315)
Alabama	1.722*** (0.488)	0.372 (0.269)	0.271 (0.256)	0.787* (0.424)
Kentucky	1.139*** (0.223)	0.730*** (0.014)	0.438*** (0.165)	0.830*** (0.316)
Constant	1.517*** (0.307)	0.354* (0.201)	-1.238*** (0.199)	-2.830*** (0.345)

Identifiable Farm Brand (Marginal Effects)					
	1	2	3	4	5
Age	-0.0005	-0.0002	0.0005	0.0016***	-0.0014***
Men	-0.002	-0.004	-0.001	0.004	0.003
Income	.0001**	0.0002**	0.0000**	-0.0002**	-0.0001**
Local Food Interest (High)	0.0144	-0.0400***	-0.1406***	0.0327**	0.1336***
Small	0.0955***	0.1547***	-0.0523***	-0.1217***	-0.0433***
Medium	0.0310*	-0.0273	-0.0207	0.0102	0.0068
Race (White)	-0.0027	-0.0045	-0.0013	0.0051	0.0035
Renter	-0.0124**	-0.0214**	-0.0076**	0.0243**	0.0171**
Arkansas	- 0.1582***	0.1350***	0.0459	-0.0018	-0.0210
South Carolina	- 0.1519***	-0.0278	0.0674**	0.0384	0.0739***
North Carolina	- 0.1843***	-0.0582*	0.0447	0.1116***	0.0862***
Tennessee	- 0.1544***	0.0000	0.0457	0.0522*	0.0566***
Alabama	- 0.1680***	0.0856	0.0289	0.0004	0.0531*
Kentucky	- 0.1328***	-0.0209	0.0646**	0.0321	0.0570**

***, **, * indicate significance at 1%, 5%, and 10% levels. Reference variables: local food interest low, large communities, other races, and Louisiana

Results

Generalized Ordered Logit Model (Performance)	1	2	3	4
State Brand	Coefficient	Coefficient	Coefficient	Coefficient
Age	-0.004* (0.002)	-0.004* (0.002)	-0.004* (0.002)	-0.004* (0.002)
Men	-0.089 (0.075)	-0.089 (0.075)	-0.089 (0.075)	-0.089 (0.075)
Income	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
Local Food Interest (High)	-0.395** (0.166)	0.008 (0.102)	0.546*** (0.081)	1.217*** (0.103)
Community Size (Large=Base)				
Small	-1.615*** (0.175)	-1.410*** (0.117)	-1.019*** (0.107)	-0.845*** (0.145)
Medium	-0.389*** (0.107)	-0.389*** (0.107)	-0.389*** (0.107)	-0.389*** (0.107)
Race (White)	0.232*** (0.083)	0.232*** (0.083)	0.232*** (0.083)	0.232*** (0.083)
Renter	0.146* (0.084)	0.146* (0.084)	0.146* (0.084)	0.146* (0.084)
Louisiana				
Arkansas	0.380* (0.199)	0.380* (0.199)	0.380* (0.199)	0.380* (0.199)
South Carolina	1.009*** (0.136)	1.009*** (0.136)	1.009*** (0.136)	1.009*** (0.136)
North Carolina	1.731*** (0.306)	1.450*** (0.178)	0.949*** (0.143)	0.935*** (0.164)
Tennessee	0.477*** (0.141)	0.477*** (0.141)	0.477*** (0.141)	0.477*** (0.141)
Alabama	0.648*** (0.229)	0.648*** (0.229)	0.648*** (0.229)	0.648*** (0.229)
Kentucky	1.024*** (0.134)	1.024*** (0.134)	1.024*** (0.134)	1.024*** (0.134)
Constant	2.924*** (0.213)	1.242*** (0.179)	0.652*** (0.173)	-2.593*** (0.183)

State Brand (Marginal Effects)					
	1	2	3	4	5
Age	0.0002*	0.0003*	0.0004*	-0.0004*	-0.0005*
Men	0.0046	0.0077	0.0081	-0.0089	-0.0115
Income	0.0000	0.0000	0.0001	-0.0001	-0.0001
Local Food Interest (High)	0.0208**	-0.0219*	- 0.1250***	-0.0492***	0.1754***
Small	0.1040***	0.1287***	0.0015	-0.1326***	-0.1016***
Medium	0.0140***	0.0339***	0.0443***	-0.0390***	-0.0533***
Race (White)	-0.0123***	-0.0207***	- 0.0205***	0.0241***	0.0294***
Renter	-0.0073*	-0.0125*	-0.0140*	0.0143*	0.0195*
Arkansas	-0.0307**	-0.0403*	-0.0117	0.0478**	0.0350*
South Carolina	-0.0658***	-0.0989***	- 0.0655***	0.1144***	0.1158***
North Carolina	-0.0887***	-0.1236***	-0.0036	0.1112***	0.1047***
Tennessee	-0.0373***	-0.0502***	- 0.0175***	0.0595***	0.0455***
Alabama	-0.0679***	-0.0670***	-0.0302*	0.0793***	0.0658***
Kentucky	-0.0664***	-0.1001***	- 0.0671***	0.1156***	0.1180***

***, **, * indicate significance at 1%, 5%, and 10% levels. Reference variables: local food interest low, large communities, other races, and Louisiana

Results

Generalized Ordered Logit Model (Performance)	1	2	3	4
Local Buying Campaign	Coefficient	Coefficient	Coefficient	Coefficient
Age	0.006 (0.004)	0.000 (0.003)	-0.008*** (0.003)	-0.020*** (0.005)
Men	0.061 (0.081)	0.061 (0.081)	0.061 (0.081)	0.061 (0.081)
Income	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Local Food Interest (High)	-0.336*** (0.128)	0.151 (0.092)	0.840*** (0.097)	1.775*** (0.173)
Size				
Small	-1.354*** (0.161)	-1.415*** (0.122)	-1.077*** (0.151)	-0.673*** (0.243)
Medium	-0.254 (0.183)	-0.388*** (0.126)	-0.181 (0.126)	-0.148 (0.186)
Race (White)	0.306** (0.139)	0.046 (0.102)	-0.167 (0.109)	0.342** (0.167)
Renter	0.079 (0.091)	0.079 (0.091)	0.079 (0.091)	0.079 (0.091)
Louisiana				
Arkansas	0.387* (0.218)	0.387* (0.218)	0.387* (0.218)	0.387* (0.218)
South Carolina	1.079*** (0.154)	1.079*** (0.154)	1.079*** (0.154)	1.079*** (0.154)
North Carolina	1.637*** (0.223)	1.379*** (0.165)	1.144*** (0.167)	0.879*** (0.225)
Tennessee	1.104*** (0.226)	0.615*** (0.163)	0.659*** (0.170)	0.536** (0.231)
Alabama	0.849*** (0.237)	0.849*** (0.237)	0.849*** (0.237)	0.849*** (0.237)
Kentucky	0.697*** (0.150)	0.697*** (0.150)	0.697*** (0.150)	0.697*** (0.150)
Constant	1.059*** (0.265)	-0.011 (0.205)	-1.512*** (0.212)	-2.958*** (0.300)

Local Buying Campaign (Marginal Effects)					
	1	2	3	4	5
Age	-0.0007	0.0007	0.0014***	-0.0001	-0.0013***
Men	-0.0063	-0.0066	0.0019	0.0071	0.0040
Income	-0.0001	-0.0001	0.0000	0.0001	0.0000
Local Food Interest (High)	0.0357***	- 0.0674***	-0.1272***	0.0350**	0.1239***
Small	0.1728***	0.1504***	-0.1529***	-0.1317***	-0.0385***
Medium	0.0221	0.0601***	-0.0469**	-0.0249	-0.0102
Race (White)	-0.0329**	0.0233	0.0401*	-0.0076	-0.0229*
Renter	-0.0081	-0.0085	0.0023	0.0091	0.0051
Arkansas	-0.0612*	-0.0289*	0.0376*	0.0353*	0.0171
South Carolina	- 0.1420***	- 0.0986***	0.0646***	0.1124***	0.0637***
North Carolina	- 0.1843***	- 0.1230***	0.1078***	0.1417***	0.4782***
Tennessee	- 0.1444***	0.0023	0.0455	0.0713***	0.0252**
Alabama	- 0.1191***	- 0.0743***	0.0624***	0.0854***	0.0456***
Kentucky	- 0.1018***	- 0.0586***	0.0571***	0.0681***	0.0351***

***, **, * indicate significance at 1%, 5%, and 10%levels. Reference variables: local food interest low, large communities, other races, and Louisiana

Conclusions

- Targeting different age groups once thinking about developing local food branding
- Try to satisfy other consumer categories expectations since these programs have already attracted the locavores attentions
- One of the local food interaction and advertising area can be local buying campaigns for involving more residents in the local food system
- Larger communities' residents are more sensitive to these programs and could be potential core consumers

Thank you!

Azita Varziri; Azita.Varziri@uky.edu
Tim Woods; Tawoods@uky.edu

Local Food Marketing as a Growth Opportunity for small food producers in Tennessee

**Blessing Chimezie Ajumobi*,
Enefiok Ekanem, and Mary Mafuyai**

**A Paper Presented at the Food Distribution Research Society
2020 Annual Meeting
October 13, 2020**



OUTLINE OF PRESENTATION

INTRODUCTION

- Objective

LITERATURE REVIEW

METHODOLOGY

RESULTS & DISCUSSION

REFERENCES

ACKNOWLEDGEMENTS

INTRODUCTION

Objectives:

This presentation
examines the
opportunities and
constraints for local
food producers
Tennessee



INTRODUCTION CONT'D.

Different methods have been used to understand different aspects of local food market system



Opportunities
and economic
contributions



[This Photo](#) by Unknown Author is licensed under [CC BY-SA](#)

Limitations

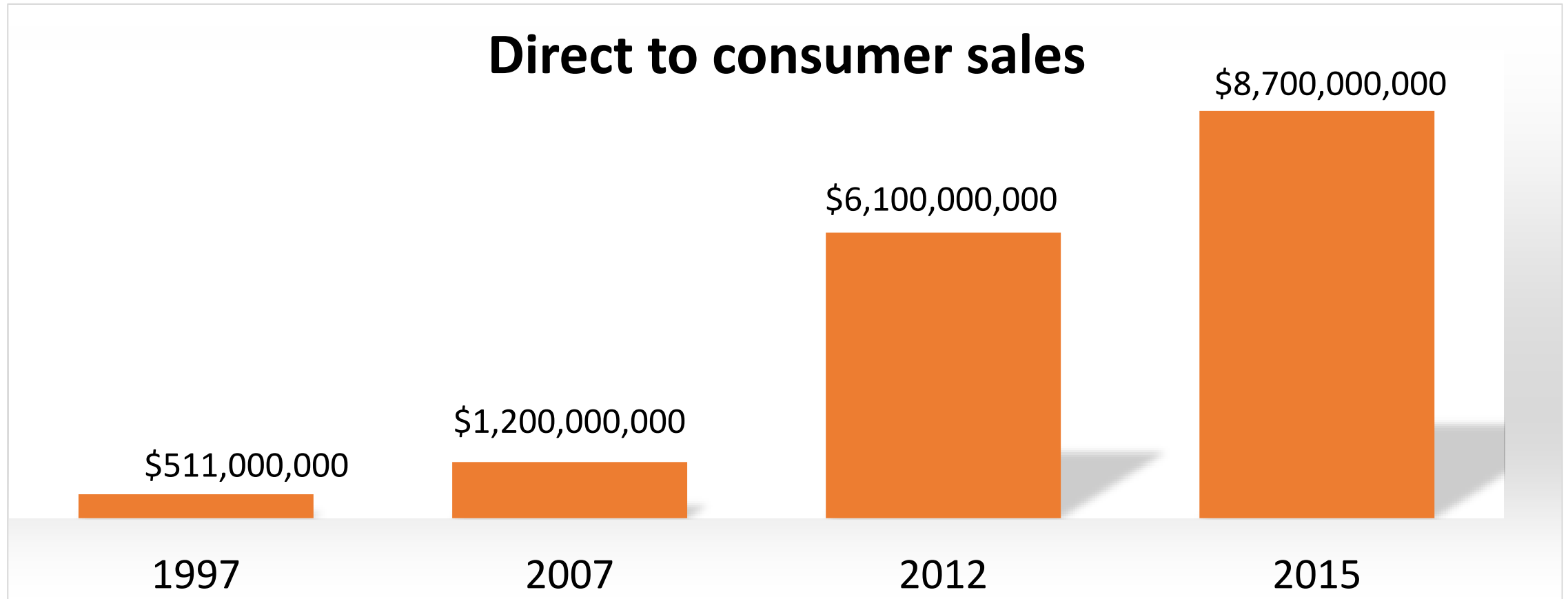


One sector of
the market



INTRODUCTION CONT'D.

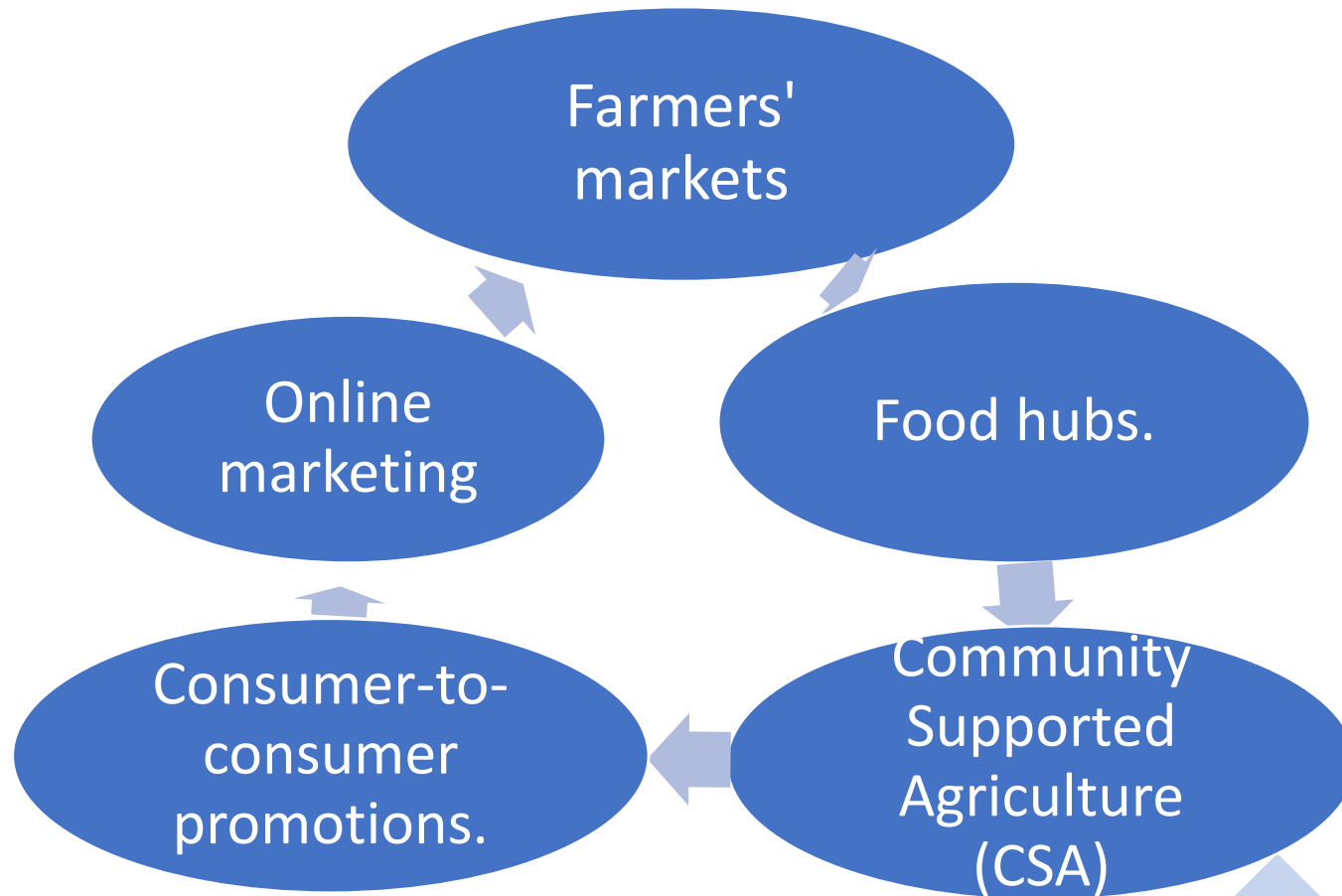
In United States, the demand for food produced in the same locality in which it is consumed has continued to increase.



Data Source: United States Department of Agriculture (2015)

INTRODUUCTION

Local food system has typically been promoted through direct strategic marketing opportunities in Tennessee



LITERATURE REVIEW

There is a wide variation in the definition of local food.

Oklahoma food policy (2008)

United States Department of Agriculture (2010)

Local market participants

LITERATURE REVIEW

Direct Farm Sales of Food in the U.S., by Type of Buyers, 2015.

Type of Buyers	\$ billions	%
Consumers	3.0	35
Retailers	2.4	27
Institutions and local Intermediary business	3.4	39
Total	8.7	100

Source: USDA NASS, 2015 Local Food Marketing Practices Survey

Examining Tennessee agricultural sector, Tennessee Department of Agriculture in 2016 reports that

LITERATURE REVIEW



the agriculture and forestry sectors contribute about \$74 billion to Tennessee's economy each year.



There are about 68,000 farms in Tennessee occupying about 9 million acres of land and



Responsible for over 349,000 jobs.



The average farm size in Tennessee is estimated to be about 160 acres

LITERATURE REVIEW

Local Food System is a core essential part of the Economy of Tennessee because over 93% of Tennessee Farms are Family Owned

Ownership	No. of Farms	%
Family Farms	63,175	93.51
Corporate Farms	963	1.43
Partnership Farms	3,419	5.04

LITERATURE REVIEW

The local food movement has grown in popularity over the past few years and now touches every part of the state of Tennessee.



LITERATURE REVIEW



This movement has helped to make healthy foods more accessible to all people and provide more options for those that are health conscience and even stimulate the economy.

According to Tennessee department of Health (TDH),
two out of three Tennesseans live in the urban area.



LITERATURE REVIEW

Primary agriculture in Knoxville employs 6,000 people and adds an additional \$82million to the economy

A study on Knoxville's regional food shed system revealed that growing and processing 20% of our food locally would generate \$500 million of additional economic activity, create nearly 5,000 new jobs, and generate \$5.8 million in local and state taxes



LITERATURE REVIEW

Tennessee Top Agricultural Products

Rank	Item	No. of Farms 68,983	Sales \$1,000	%
1	Grains, oilseed, dry beans, & Dry peas	5306	3,788,934	33.9
2	Cattles & Calves	30,462	719701	18.9
3	Poultry and eggs	5,706	639,750	16.8
7	Milk from cows	418	125,371	3.3
9	Vegetables & Potatoes	1,964	93,333	2.5
10	Hogs	1,429	66,393	1.7

LITERATURE REVIEW

Previous Literature show that the increase in consumers' demand for locally produced food impacts increase in the production and marketing of local food.



METHODOLOGY

Secondary and primary data sources are used to collect and analyze data to accomplish the objectives of this paper

Primary data

Online surveys of 300 local food producers in Tennessee was used in collecting the primary data needed to accomplish the objective of this paper

Secondary data

Secondary data from the U.S Census of Agriculture, USDA's ERS, NASS, TN Dept. of Agriculture are used to provide the background information needed for this paper.

RESULTS & DISCUSSION

Opportunities in local foods marketing

- Increased number of informed and health conscious consumers prefer the health benefits of local food over processed food
- Satisfy consumers' demand local and even high-end restaurants are utilizing services of local food vendors
- Conventional grocery stores are broadening their organic and local food aisles to accommodate locally produced food from local farmers
- Farm-to-school food programs.



SELECTED REFERENCES

- American Marketing Association. Definition of marketing. Marketing news. Jan 15. 2008: 28–29
- Brian, R. (2012). The Local Food Movement: Definitions, Benefits & resources. Journal of Utah University Extension Sustainability, Vol. 09 pages 1-7 <https://digitalcommons.usu.edu>
- Chen, L. A., Miranda, V. B., Parcell, L. J., & Chen, C. (2019). The Foundation of Institutional- based trust in farmers' markets. Journal of Agriculture and Human Values (AFkHVS) Vol 36(3) pages 395-410 Doi: 10.1007/s10460-019-09923-4 September
- Ekanem, E., Mafuyai M., and Clardy A. (2016)"Economic Importance of Local Food Markets: Evidence from the Literature," Journal of Food Distribution Research, Food Distribution Research Society, vol. 47(1), pages 1-8, March. <https://ideas.repec.org/a/ags/jlofdr/232302>
- Gaille Brandon (2018). 27 Retail Grocery Industry Statistics, Trends & Analysis. Retrieved on July 12, 2020. From: <https://brandongaille.com/27-retail-grocery-industry-statistics-trends-analysis/>
- Hansen, T., Sorenson, M. I., Eriksen, M. R. (2018). How the interplay between consumer motivations and values influence organic food identity and behavior. Food Policy, Vol. 74. U.S.D.A./ERS-Market Overview. Vol. 74, pp. 39-52. <http://dx.doi.org/10.1016/j.foodpol.2017.11.003>
- Hellwinckel C. and Valencia M. (2016). Knoxville Regional Food Hub Feasibility Study. University of Tennessee's Institute of Agriculture.
- Hughes, W. D., & Boys, A. K. (2015). What We Know and Don't Know About the Economic Development Benefits of Local Food Systems. Journal of Agricultural & Applied Economics Association. Vol 30(1) pages 1-7.
- Lamie, D. R., Dunning, R., Benfeldt, E., Lelekacs, M. J., & Veandia, M. (2013). Local Food Systems in the South: A Call for a Collaborative Approach to Assessment. Journal of Agricultural & Applied Economics Association, vol 28(4) pages 1-4.
- Jablonski, L. C., Stephens, B. B. R., & Joshi, A. (2018). Evaluating the Economic Impacts of Farm-to-school Procurement: An Approach for Primary and Secondary Financial Data Collection of Producers Selling to Schools. Journal of Agriculture, Food Systems, and Community Development, 8(C), 73-94. <https://doi.org/10.5304/jafscd.2019.08C.002>

SELECTED REFERENCES

- Jarosz, L. (2008). The city in the country: Growing alternative food networks in Metropolitan areas, Journal of Rural Studies, Vol. 28 (3) pages 231-244, ISSB 0743-0167, Retrieved from: <https://doi.org/10.1016/j.jrurstud.2007.10.002>.
- Vogel, S. and S. Low (2015). The Size and Scope of Locally Marketed Food Production USDA Economic Research Service Statistic: Farm Economy.
- Matson, J., Sullins, M., & Cook, C. (2013). The Role of Food Hubs in Local Food Marketing, ERR 73, U. S. Department of Agriculture, Rural Development. January.
- Rossi, J., Johnson, T., & Hendrickson, M. (2017). The Economic Impacts of Local And Conventional Food Sales. Journal of Agricultural and Applied Economics, 49(4), 555-570. doi:10.1017/aae.2017.14
- Slaton, K., Testa, D., Bakhshian, S., & Fiore, A. (2020). The small, inventory free retail format: The impact on consumer-based brand equity and purchase behavior, Journal of Retailing and Consumer Services, Vol. 57, 102246, ISSN 0969-6989, <https://doi.org/10.1016/j.jretconser.2020.102246>.
- United States Department of Agriculture (USDA), Economic Research Services (ERS). (2020). Food Pricing and Spending. Retrieved on August 12, 2020. From: <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/food-prices-and-spending/>
- Wills, B., & Arundel, A. (2017) Internet-enabled Access to Alternative Food Networks: A Comparison of online and offline food shoppers and their differing interpretations of quality. Journal of Agricultural Human Values (2017) 34: 701-712. Doi: 10.1007/s10460-017-9771-2.
- Wymer, W., & Mottner, S. (2009). Marketing Inclusion in the Curricula of U.S. Nonprofit Management Programs. Journal of Public Affairs Education, 15(2), 185-202. Retrieved August 10, 2020, from www.jstor.org/stable/40215849
- Zahaf, M. (2015). Alternative food - Marketing perspective on the production and distribution system.

SELECTED REFERENCES

- Jarosz, L. (2008). The city in the country: Growing alternative food networks in Metropolitan areas, Journal of Rural Studies, Vol. 28 (3) pages 231-244, ISSN 0743-0167, Retrieved from: <https://doi.org/10.1016/j.jrurstud.2007.10.002>.
-
- **Kotler, P. (2005). The Role Played by the Broadening of Marketing Movement in the History of Marketing Thought. Journal of Public Policy & Marketing, 24(1), 114-116. Retrieved August 10, 2020, from www.jstor.org/stable/30000565**
- Vogel, S. and S. Low (2015). The Size and Scope of Locally Marketed Food Production USDA Economic Research Service Statistic: Farm Economy.
- Matson, J., Sullins, M., & Cook, C. (2013). The Role of Food Hubs in Local Food Marketing, ERR 73, U. S. Department of Agriculture, Rural Development. January.
- Matondang, S. A., Rahma, S., & Haramain, T. (2020). Digital Food Marketing and Delivery of Ethnic Food Impacts on Culinary Business. *Talent Development & Excellence*, 12(2), 1231–1236.
- Rossi, J., Johnson, T., & Hendrickson, M. (2017). The Economic Impacts of Local And Conventional Food Sales. Journal of Agricultural and Applied Economics, 49(4), 555-570. doi:10.1017/aae.2017.14
- Slaton, K., Testa, D., Bakhshian, S., & Fiore, A. (2020). The small, inventory free retail format: The impact on consumer-based brand equity and purchase behavior, Journal of Retailing and Consumer Services, Vol. 57, 102246, ISSN 0969-6989, <https://doi.org/10.1016/j.jretconser.2020.102246>.
- United States Department of Agriculture (USDA), Economic Research Services (ERS). (2020). Food Pricing and Spending. Retrieved on August 12, 2020. From: <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/food-prices-and-spending/>
- Wills, B., & Arundel, A. (2017) Internet-enabled Access to Alternative Food Networks: A Comparison of online and offline food shoppers and their differing interpretations of quality. Journal of Agricultural Human Values (2017) 34: 701-712. Doi: 10.1007/s10460-017-9771-2.
- Wymer, W., & Mottner, S. (2009). Marketing Inclusion in the Curricula of U.S. Nonprofit Management Programs. Journal of Public Affairs Education, 15(2), 185-202. Retrieved August 10, 2020, from www.jstor.org/stable/40215849
- Zahaf, M. (2015). Alternative food - Marketing perspective on the production and distribution system. Retrieved on August 13, 2020. From: www.intechopen.com.

ACKNOWLEDGEMENTS

Financial Support from Thanks to

- Department Agricultural Sciences,
College of agriculture
- Tennessee State University
- United States Department of Agriculture
- Evans-Allen Project

? QUESTIONS?



shutterstock.com • 1498939670

Measuring Food System
Performance and Development in South Carolina

The Local Food System Vitality Index (LFSVI)

Problem



Identifying successful development priorities for local food systems (LFS) is a challenge for producers, LFS advocates, Extension agents, and policymakers.



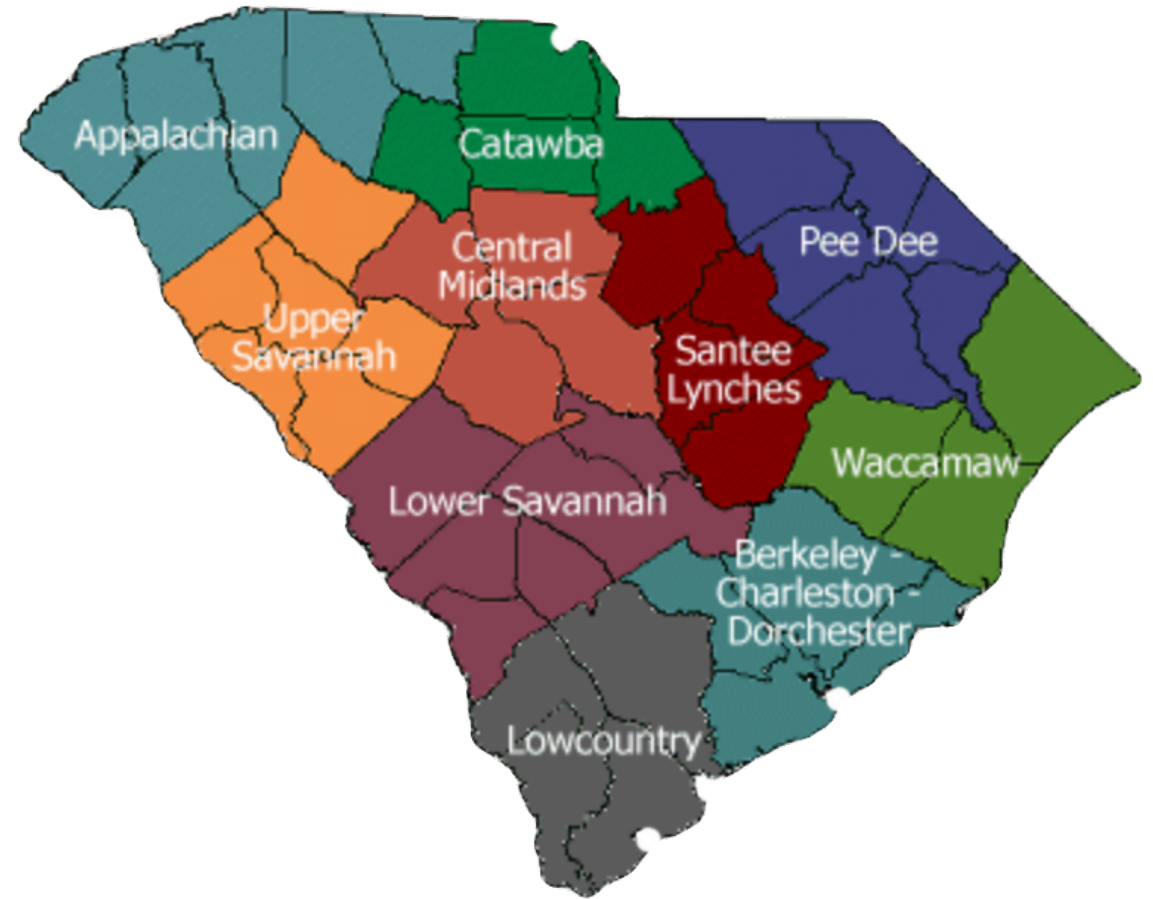
Regional and local community organizations need a rapid performance assessment tool related to LFS.

Project Overview

- Local Food System Vitality Index (LFSVI)
 - USDA Grant funded project
 - Focuses on the perceptions of resident food consumers
- LFSVI can provide a baseline of LFS dynamics over time such as:
 1. Understanding potential areas of strength and weakness in a LFS,
 2. Evaluating policies, institutions, and infrastructure that are integral to the vitality of place-specific LFS.
- This project was funded by USDA Grant Funding

South Carolina Council of Government (COG) Regions

- Councils of Government (COGs) are partnerships of the local counties, cities, towns, and federal and state agencies in their regions.
 - Obtain and administer grants for a variety of community-based programs and economic development initiatives.
- This report focuses on three primary COG regions in South Carolina
 - Appalachian COG
 - Catawba COG
 - Central Midlands COG



Survey

- LFS components were identified through a series of focus groups
 - Refined down to 20 distinct measures
 - Organized in three broad groups
 - Food Market Performance
 - Community Engagement Performance
 - Local Food Promotion Performance
- Survey participants were asked to evaluate 20 LFS components in SC for performance on a 5-point Likert scale

Survey Question

Figure 1. Individual LFS Component Rating Questions

How would you rate the functioning of the following aspects of your local food scene?						
	Very Poor	Poor	Avg.	Good	Excellent	Don't Know
Element	1	2	3	4	5	0
FOOD MARKET PERFORMANCE						
Farmers markets quality	0	0	0	0	0	0
Retail cooperative food stores offer food from local farms	0	0	0	0	0	0
Grocery stores offer food from local farms	0	0	0	0	0	0
Restaurants serve local food	0	0	0	0	0	0
Community supported agriculture (CSA) program quality	0	0	0	0	0	0
Schools engage with local farms	0	0	0	0	0	0
Food trucks use local ingredients	0	0	0	0	0	0

Survey Distribution

- Sent a blended mail and web-based survey to a randomized sample of 1,500 SC residents with a total sample size of 912 SC residents
 - Approx. 858 online respondents
 - Approx. 54 online
- Utilized the residential property transaction database in 2019
 - Prior to random selection, individuals were segmented by property value within each zip-code

Analysis

- Mean performance of each component for SC residents
- Index the mean scores of the Appalachian COG against the performance of scores of residents in other SC COG regions
 - Comparison of means for statistical significance by using a combination of ANOVA and Tukey tests
 - Identifies how consumer perceptions of performance are influenced by their geographical location within SC
 - Scores higher than 100 represent areas where that community
- Ordered Logistic Regression (OLS)
 - To understand the relationship of each component to overall vitality

Results



Demographics

Survey Summary Statistics by Region			
Variables	Appalachian	Central Midlands	Catawba
Age	50	50	52
Female	66%	65%	56%
Income	\$70,000	\$76,000	\$82,000
Education			
High School or Less	33%	28%	28%
2 Year Degree	23%	17%	19%
4 Year Degree	28%	28%	34%
Professional Degree	16%	27%	19%
Race			
African American	12%	21%	8%
Caucasian	83%	70%	87%
Multiracial	2%	4%	4%
All Other Categories	3%	5%	1%

General Performance Evaluations

Regional Results by Performance Type

Food Market Performance Ratings by Region						
	Appalachian		Central Midlands		Catawba	
		Don't Know		Don't Know		Don't Know
Variables	Mean	(%)	Mean	(%)	Mean	(%)
Farmers Markets	3.7	0.1	3.7	0.11	3.4	0.16
Specialty Retail	3.4	0.24	3.6	0.25	3.1	0.29
Retail	3.9	0.01	3.8	0.02	3.9	0.05
Restaurants	3.9	0.03	3.8	0.04	3.6	0.05
CSA	3.3	0.47	3.4	0.49	3.2	0.48
Food Truck	3.1	0.36	3.3	0.38	3.1	0.29
Ethnic Grocery	3.1	0.36	3.1	0.45	2.7	0.47
Roadside Stand	3.3	0.18	3.2	0.2	3.2	0.19
Brewery, Distillery, etc.	3.5	0.33	3.4	0.38	3.4	0.36
Farm-to-School	3	0.54	3	0.59	2.7	0.56
Institutional Buying	3.6	0.19	3.5	0.21	3.4	0.26

General Performance Evaluations

Regional Results by Performance Type

Local Product Characteristics						
	Appalachian		Central Midlands		Catawba	
Variables	Don't		Don't		Don't	
	Mean	Know (%)	Mean	Know (%)	Mean	Know (%)
Food Quality	3.7	0.12	3.8	0.12	3.7	0.13
Healthy	3.5	0.13	3.4	0.12	3.3	0.19
Diversity of Products	3.4	0.16	3.4	0.13	3.2	0.15
State Branding	3.4	0.24	3.7	0.16	3.2	0.27
Price Competitive	3.3	0.13	3.5	0.14	3.4	0.17
Farm Brands	3.2	0.28	3.2	0.24	3	0.25
Local Food Label	3.2	0.19	3.3	0.23	3.2	0.23

General Performance Evaluations

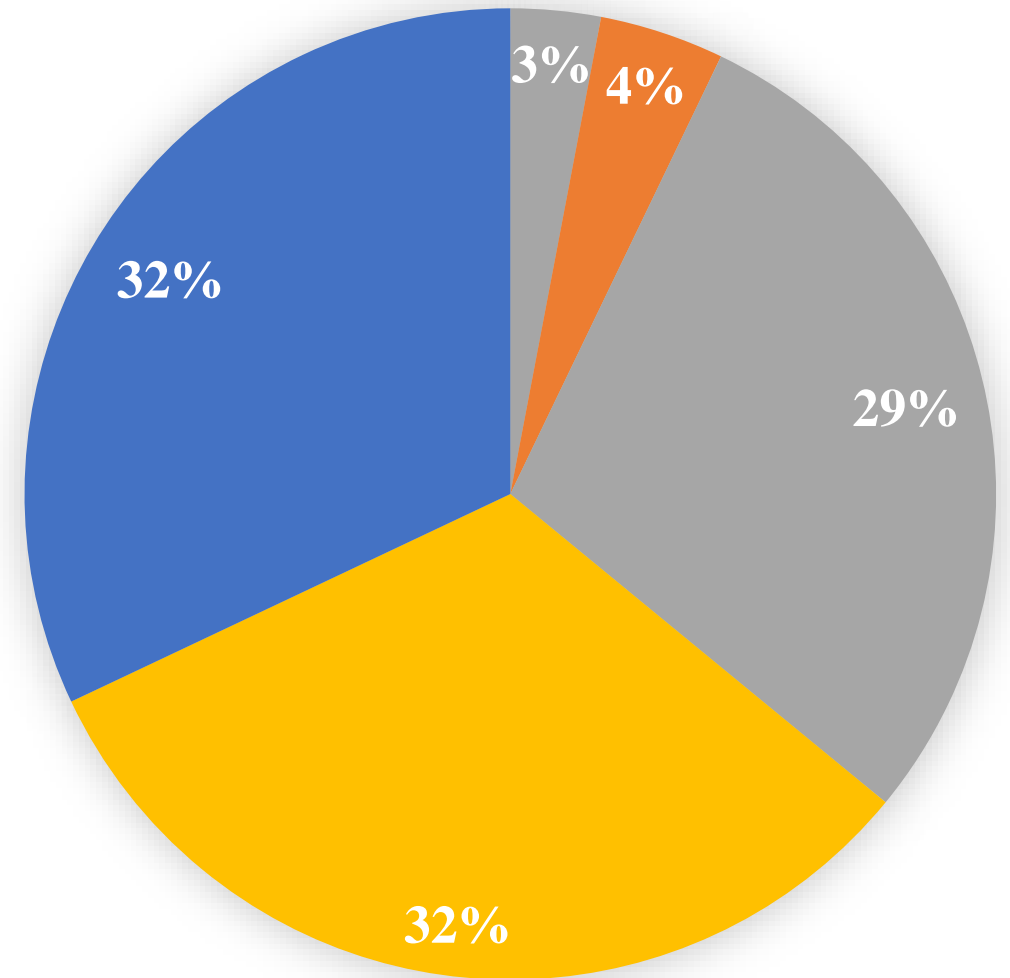
Regional Results by Performance Type

Local Food Programs and Activities						
	Appalachian		Central Midlands		Catawba	
Variables	Mean	Don't Know (%)	Mean	Don't Know (%)	Mean	Don't Know (%)
Food Festivals	3.5	0.14	3.4	0.13	3.1	0.16
Food Banks & Pantries	3.3	0.2	3.4	0.16	3.2	0.23
On Farm Events	3.2	0.31	3.1	0.32	3.2	0.3
Home/Community Gardens	3.1	0.28	2.9	0.3	3	0.23
Food Education	3	0.32	2.9	0.32	2.8	0.34
Fresh Food in Low Income Neighborhoods	2.7	0.41	2.6	0.37	2.6	0.36

General Interest Ratings

Appalachian COG Interest Ratings (%)

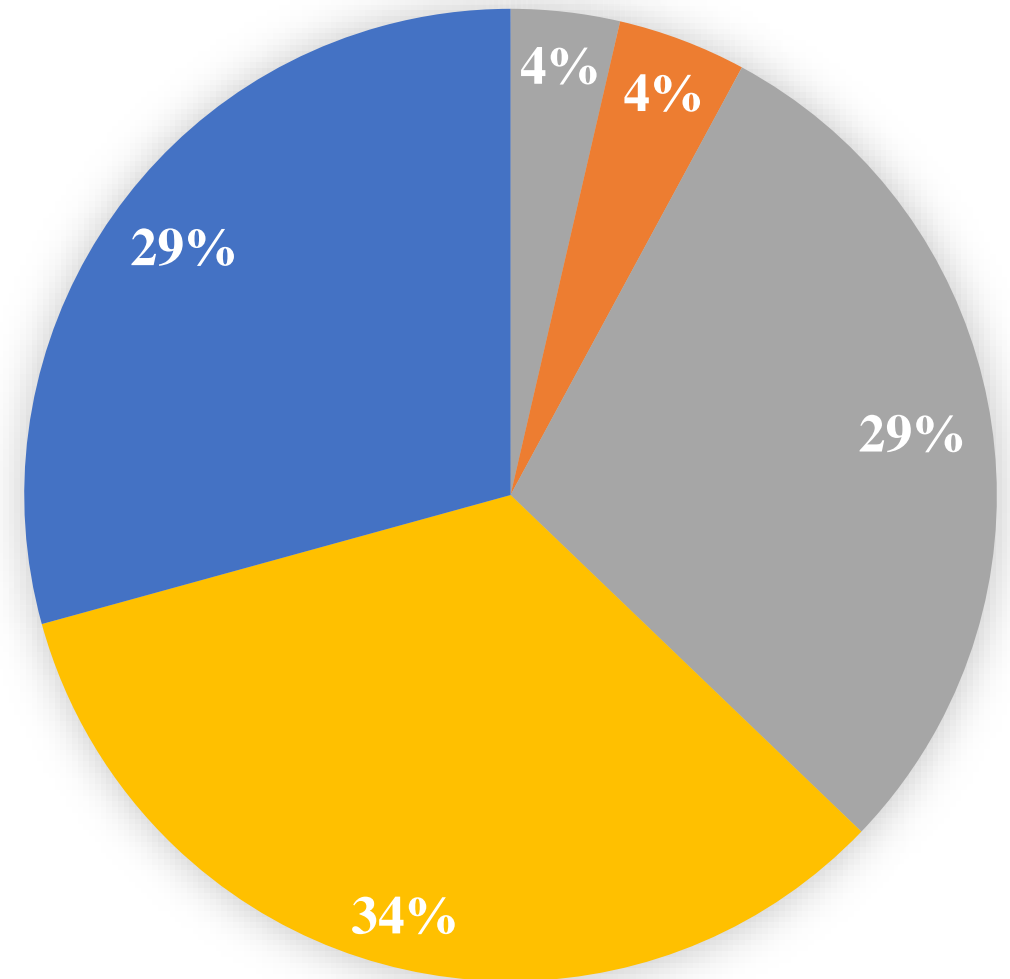
- Not Interested
- Not/Somewhat Interested
- Somewhat Interested
- Somewhat/Very Interested
- Very Interested



General Interest Ratings

Central Midlands COG Interest Ratings (%)

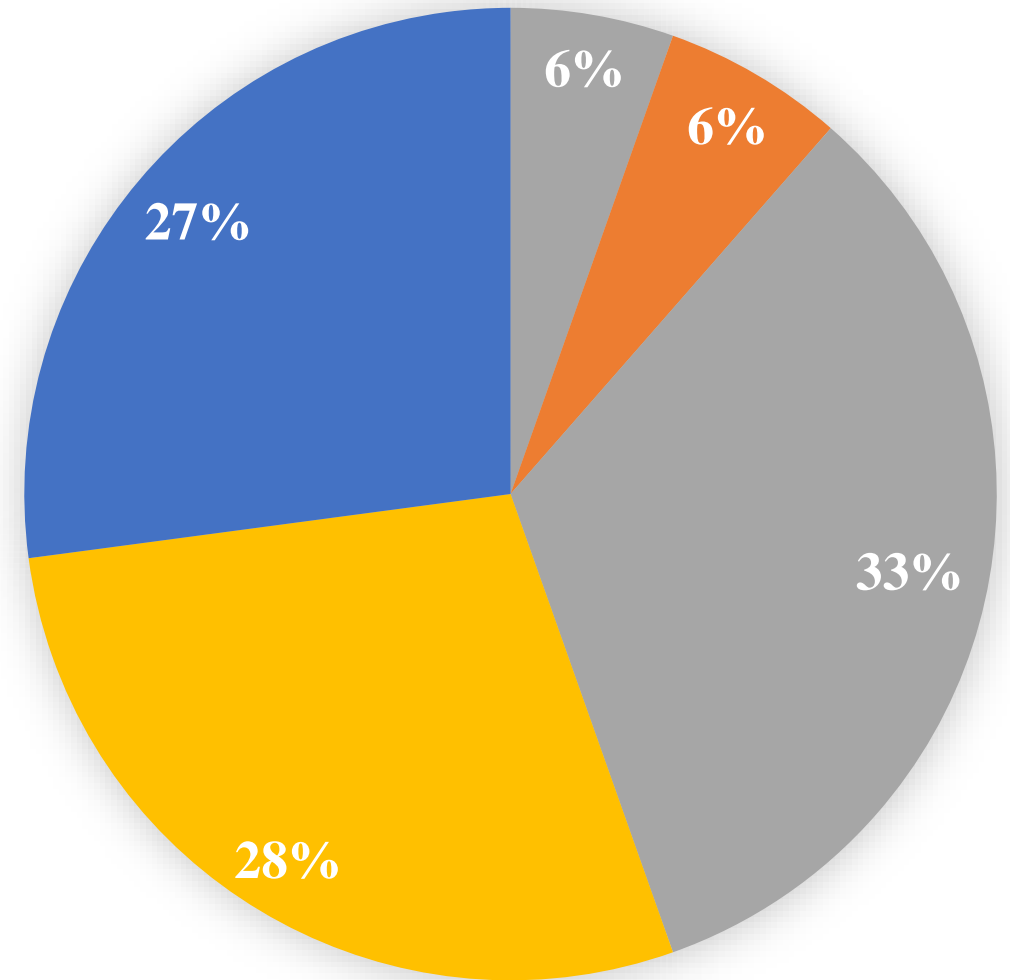
- Not Interested
- Not/Somewhat Interested
- Somewhat Interested
- Somewhat/Very Interested
- Very Interested



General Interest Ratings

Catawba COG Interest Ratings (%)

- Not Interested
- Not/Somewhat Interested
- Somewhat Interested
- Somewhat/Very Interested
- Very Interested



Concluding Remarks

- Food Market Performance
 - High rates of “Don’t Know” scores for CSA and Farm-to-School food markets
 - Retail, restaurants, and farmers markets had the highest scores
 - Food trucks, Farm-to-School programs, and ethnic grocery had the lowest rated components
- Product Characteristics
 - All communities score each aspect as above average in performance
 - Food quality is the highest among components
 - Residents also rate local foods as being both healthy and price competitive
- Local Food Programs and Activities
 - Fresh food in low income neighborhoods scored more than 0.2 points below average
 - Food festivals and banks are well above average for both the Appalachian and Central Midlands COG



Next Steps

- OLS regressions
- Special focus on role and effectiveness of state branding programs
- Presenting to COGs
- Development of indicators for integration into quality of life indicators systems