Food Distribution Research Society

Journal of Food Distribution Research
Volume 50, Issue 2

Factors Influencing Consumers Familiarity with State Branded Programs: A Case Study for South Carolina

Bailee N. Hawkins,[a] Michael Vassalos,[bΦ] and Marzieh Motallebi[c]

[a]*MSc Student, Department of Applied Economics and Statistics,*
Clemson University, 146 McAdams Hall,
Clemson, SC, 29634-0310 USA

[b]*Associate Professor, Department of Agricultural Sciences,*
Clemson University, 233 McAdams Hall,
Clemson, SC, 29634-0310 USA

[c]*Assistant Professor, Forestry and Environmental Conservation Department,*
Clemson University, Baruch Institute of Coastal Ecology & Forest Science, P.O. Box 596,
Georgetown, SC, 29442, USA

Abstract

Previous studies often highlight that consumers are willing to pay price premiums for products with state brands. However, limited research exists regarding the factors influencing consumers' level of familiarity with state-branded logos. This study evaluates the impact of South Carolinians' demographic characteristics and food shopping behaviors on their degree of familiarity with the "Certified South Carolina Product" logo. Data were obtained from an online survey. Results reveal that respondents who purchase fresh products from direct marketing outlets and have lived longer in South Carolina are more likely to be familiar with the logo. Marketing recommendations are also discussed.

Keywords: familiarity with local labels, local foods, South Carolina Certified Product, state-branding campaigns

ΦCorresponding author: Tel: (864) 656-2439
Email: mvassal@clemson.edu

Introduction

Growing consumer concerns about the viability of local farms, food safety, carbon footprint, food origins, and agricultural production practices has stimulated a resurgence of interest for local food products in the United States after the second half of the twentieth century (Hinrichs, 2000; Giovannucci, Barham, and Pirog, 2010; Feldmann and Hamm, 2015). Subsequently, the popularity of local food products has steadily increased (Meas et al., 2014; Printezis and Grebitus, 2018; Aprile, Caputo, and Nayga, 2016). The substantial growth in the number of direct marketing outlets and the supply of local foods in major grocery stores over the last two decades are often cited as indicators of increased consumer interest in local food products (Ahearn, Liang, and Goetz, 2018; Printezis and Grebitus, 2018). This trend has attracted considerable attention from scholars, who have identified numerous reasons that can potentially explain consumers' preferences for local foods (Onozaka and McFadden, 2011). Feldmann and Hamm (2015) and Bogomolova et al. (2016) review related contemporary research endeavors.

Concurrently, government agencies across the European Union (EU), United States, and Canada actively support the local food movement through different programs (Ahearn, Liang, and Goetz, 2018; Printezis and Grebitus, 2018; Hughes and Massa, 2015; O'Hara and Coleman, 2017; Knight, 2013; Campbell, Lesschave, and Bowen, 2010). Among the most prominent of these policies are regional and state promotion campaigns (Hughes and Massa, 2015; Onken and Bernard, 2010; Campbell, Lesschave, and Bowen, 2010). State-based branding campaigns were initially introduced in the United States during the 1980s with the "Vermont Seal of Quality" (1980) and the "Jersey Fresh" (1983) logos (Onken and Bernard, 2010; Campbell and Bickle, 2017). At some point over the last four decades, every state had a similar promotion program (Hughes and Massa, 2015; Onken and Bernard, 2010; Katz, Campbell, and Liu, 2019; Naasz, Jablonski, and Thilmany, 2018).

Potential positive contributions to the local economy, through income and employment growth, are commonly used to justify the popularity and widespread adoption of state branding programs (Hughes and Massa, 2015; O'Hara and Coleman, 2017; Feldmann and Hamm, 2015; Mugera, Burton, and Downsborough, 2017). Although a number of studies have evaluated the multiplier effect of those campaigns on local economies, divergences exist (McCaffrey and Kurland, 2015; Knight, 2013; Hughes and Massa, 2015; Tootelian, Liebich, and Thompson, 2007). For instance, Govindasamy et al. (2004), Otto and Varner (2005), and Rossi, Johnson, and Hendrickson (2017) estimate positive economic effects, but Hughes and Massa (2015) indicate that the Certified South Carolina (SC) campaign did not have a substantial impact on the South Carolina economy.

State branding programs also aim to (i) increase the opportunities for local farmers to benefit from the premium consumers are potentially willing to pay (WTP) for local foods, (ii) disseminate information about the origins of a product to consumers, and (iii) support and promote the marketing of locally grown and processed food products (Naasz, Jablonski, and Thilmany, 2018; Mugera, Burton, and Downsborough, 2017; Knight, 2013; Feldmann and Hamm, 2015; Aborisade et al., 2016; Aprile, Caputo, and Nayga, 2016). Consumer familiarity with regional promotion campaigns is a crucial element that can substantially influence

campaigns' effectiveness and whether they can achieve the aforementioned objectives (Khachatryan et al., 2017; Knight, 2013). Specifically, if a program successfully makes buyers aware of the state brand campaign, then it is more likely that consumers will consider buying the product rather than a nonbranded one (Porral and Mangin, 2016; Carpio and Massa, 2010; Nganje, Hughner, and Lee, 2011; Tootelian, Liebich, and Thompson, 2007).

Similarly, variations in consumers' awareness of local labels have been documented in the literature. For example, Onken and Bernard (2010) utilize a mail survey to evaluate consumer familiarity with regional promotion programs in five Mid-Atlantic States. The results highlight a range of familiarity from approximately 48% (Pennsylvania) to 84% (New Jersey). Low familiarity rates were also reported for the Certified South Carolina (30%), Kentucky Proud (25%), Arizona Grown programs (44%), and across southern Missouri for the Agrimissouri logo (36%) (Carpio and Massa, 2010; Zarebanadkoki and Woods, 2015; Brown, 2003; Nganje, Hughner, and Lee, 2011).[1] Conversely, Naasz, Jablonski, and Thilmany (2018) determine that more than 86% of Colorado residents are familiar with the "Colorado Proud" program, Aborisade et al. (2016) indicate that more than 60% of their sample had seen and used the Appalachian Grown label, and Tootelian, Liebich, and Thompson (2007), indicated a high familiarity with the California Grown campaign. Mixed results regarding familiarity with regional branding campaigns are also obtained from Canadian surveys: For example, levels of familiarity with Foodland Ontario were found to be 97%, while only 33% of survey respondents were aware of Select Nova Scotia (Ontario Ministry of Agriculture, Food and Rural Affairs, 2016; Knight, 2013).

To improve (or build) consumer awareness of state branding campaigns, some programs spend a high percentage of their budget for advertising purposes (Patterson et al., 1999; Hughes and Massa, 2015). Considering these expenses, understanding the factors that influence consumers' familiarity with the state/regional promotion programs is of paramount importance. Moreover, illustrating program effectiveness is critical for determining whether these programs should be continued (Onken, Bernard, and Pesek, 2011). Nevertheless, relevant literature is scarce and, in some cases, rather dated (i.e., Patterson et al., 1999; Jekanowski, Williams, and Schiek, 2000; Knight, 2013; Zarebanadkoki and Woods, 2015).

The present study is an effort to cover this gap in the literature by investigating the role of demographic variables and consumers' food shopping preferences on the probability that South Carolina residents will be familiar with the Certified SC program. The campaign was introduced in 2007 and includes four logos: (i) Certified SC Product, (ii) Certified SC Grown, (iii) Certified SC Seafood, and (iv) Fresh on the Menu. Over the last decade, the average annual budget for the program exceeded $1 million, with more than 70% of the budget allocated to advertising. Further, the "Certified SC" is one of the programs that advertises outside the state (Crenwelge, 2016; Hughes and Massa, 2015; Niblock, 2017). Membership in the Certified SC program has consistently increased since its inception and today includes more than 2,000 members and 120

[1] Zarebanadkoki and Woods (2015) evaluate familiarity using a 4-point Likert scale question. The 25% refers to the "very familiar" category. Other studies evaluate familiarity using a binary option (i.e., "familiar," "not familiar").

products (Niblock, 2017). This study focuses on the Certified SC Product logo (Figure 1).[2] The results of the study can provide guidance for policy makers, producers, and marketing agencies on how to more effectively promote local/state logos given campaigns' limited budgets.

Figure 1. Certified SC Product Logo

Data

We used an online survey to address the study objective. The questionnaire was distributed to adult (18 years or older) South Carolina residents who were the primary grocery shoppers for their households. To evaluate whether household location influenced participants' familiarity with the Certified SC program, we utilized the National Center for Health Statistics (NCHS) urban–rural classification scheme to define and differentiate rural and urban counties (Ingram and Franco, 2013). For the purposes of this study, we designated a county as urban if the NCHS classifies it as a large or medium metro. Suburban counties are those classified by the NCHS as fringe metro, and small urban counties are those classified as small metro. Rural counties are those that do not belong in any of the previous categories.

Survey respondents were recruited through Qualtrics, an online survey software provider commonly used for applied economics research, from January 18 to January 23, 2018. Prior to the completion of the survey, we organized two focus groups of approximately 10 members each to test the survey wording and content. The final survey sample included 512 respondents.

[2] According to the South Carolina Department of Agriculture (2019), products that are eligible for inclusion in the Certified SC Product include

> agricultural products and food products that are manufactured or processed in the state that may or may not always include ingredients grown exclusively in South Carolina. This includes value added products, manufactured food products, and other agricultural products that may be further sorted, graded, blended, processed and packaged, in South Carolina. In addition, Specialty agricultural food businesses located in South Carolina may have an exclusive recipe manufactured in another state, under the South Carolina address and company label, and be eligible for membership in the program.

Survey participants were provided a picture of the Certified SC brand logo (Figure 1) to trigger brand recall before being asked to rate their familiarity with the label. Respondents' level of brand awareness was measured on a 3-point Likert scale question (1 = "The label is completely unknown to me," 2 = "I am somewhat familiar with this label," and 3 = "I am very familiar with this label"). Approximately one-third (31.25%) of survey participants indicated that the label was completely unknown to them, and 44% mentioned indicated that they were very familiar with the label. Compared to the findings of Carpio and Massa (2010), our results indicate a higher percentage of respondents who are familiar with the label.

Table 1 reports summary statistics for respondents' demographic characteristics. Compared to the South Carolina population, the study sample overrepresented females as well as participants who had obtained associates, bachelor's, or other higher education degrees. The gender overrepresentation can be easily explained by the role of females in U.S. households as the primary grocery shoppers and cooks for their family. With the exception of households reporting annual income below $14,999 or greater than $150,000, the sample is comparable to the South Carolina population.

Methods

We used a Tukey–Kramer test to facilitate comparisons across the three groups (completely unknown, somewhat familiar, and very familiar with the Certified SC Product label). Based on the Tukey–Kramer test, a statistically significant difference between two means exists when

$$\frac{|\overline{Y_i} - \overline{Y_j}|}{S\sqrt{\frac{\left(\frac{1}{n_i}+\frac{1}{n_j}\right)}{2}}} \geq q\left(\alpha; k, v\right), \tag{1}$$

where, $\overline{Y_i}$ and $\overline{Y_j}$ are the means for groups i and j, respectively, s is the root mean square error (pooled standard deviation), n_i and n_j are the number of observations and $q(\alpha;k,v)$ is the critical value for the studentized distribution of k normally distributed variables with degrees of freedom equal to v and a significance level of α (Katchova, 2006).

Considering the nominal and unordered nature of the dependent variable, we used a multinomial logit model to estimate the impact of selected explanatory variables on the probability that a respondent would be familiar with the Certified SC Product label. Following Cameron and Trivedi (2010), the probability of the jth familiarity category for respondent i is given by

$$P_{ij} = \frac{\exp\left(\beta_j x_i\right)}{\sum_{j=1}^{J} \exp(\beta_l x_i)} \qquad j = 1,2,3, \tag{2}$$

Table 1. Demographic Characteristics for the Sample and South Carolina

	Sample	State
Gender (%)		
Female	84.57	51.5
Age (%)		
18–25 years	10.55	9.7[a]
26–34 years	23.63	13.1
35–54 years	33.79	25.6
55–64 years	17.77	13.1
> 65 years	14.26	16.3
Education (%)		
Not a high school graduate	1.95	13.5
High school or equivalent	19.14	29.4
Some college/associates degree	39.65	30.1
Bachelor's degree	25.59	17.2
Graduate degree	13.67	9.8
Annual household income (%)		
< $14,999	9.38	15.5
$15,000–$24,999	12.50	12.7
$25,000–$49,999	28.52	26.4
$50,000–$74,999	23.05	18.0
$75,000–$99,999	13.09	11.2
$100,000–$149,000	2.15	10.4
> $150,000	1.76	6.0
SC residency (%)[b]		
Urban county	70.90	66.33
Suburban county	6.05	
Small urban county	9.70	
Rural county	13.28	33.67

Note: State-level statistics are based on the 2017 American Community Survey (https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/).

[a]At the state level, population is based on individuals at least 25 years of age.

[b]At the state level, values are based on the 2010 census. For the sample, the classification of counties is based on the National Center for Health Statistics (Ingram and Franco, 2013).

where x_j are the characteristics of the respondents and P_{ij} is the probability of outcome j given consumer i. Considering that the probabilities of all choices sum to 1, a convenient normalization is to set β_j for one of the categories equal to 0. For this study, we designate "I am very familiar with the logo" as the base category.

To gain further insights into the impact of the explanatory variables on respondents' familiarity with the label, the marginal effects are calculated as follows (Cameron and Trivedi, 2010):

$$\frac{\partial p_{ij}}{\partial x_i} = p_{ij}\left(\beta_j - \overline{\beta_i}\right). \tag{3}$$

Results

Table 2 reports descriptions of and summary statistics for the explanatory variables used in the model estimation. Our *a priori* hypothesis is that consumers who (i) have lived longer in South Carolina, (ii) cook, (iii) care about the nutrients in their food products, and (iv) shop at direct marketing outlets are more likely to be familiar with the Certified SC Product logo.

Table 3 reports summary statistics by respondents' level of familiarity with the label and indicates whether the pairwise comparisons between degrees of familiarity are statistically significant based on the Tukey–Kramer procedure. The findings indicate that consumers who are very familiar with the label tend to be younger, have lived longer in South Carolina, and shop at direct marketing outlets more often than those who are less familiar with the label. Compared to respondents who are very familiar or somewhat familiar with the logo, survey participants who are unfamiliar with the campaign tend to live in suburban areas. These results are consistent with previous studies highlighting that very few of the demographic characteristics examined had an impact on consumers' awareness of labels (Knight, 2013; Patterson et al., 1999).

Table 4 reports the estimates of the multinomial logit regression model. Consistent with previous studies (Knight, 2013; Zarebanadkoki and Woods, 2015; Patterson et al., 1999), the findings indicate that most of the demographic characteristics did not have a statistically significant impact on the probability that a survey respondent will be familiar with the Certified South Carolina Product logo. Nevertheless, age has a statistically significant negative impact on the probability that a survey participant was familiar with the label. It is plausible that marketing campaigns are processed differently by different age groups (Campbell and Bickle, 2017). In addition, it may be more difficult for older consumers to understand the labels (Cowburn and Stockley, 2004).

Similarly, the results indicate that length of residency has a significant impact on the probability that a survey participant is familiar with the Certified South Carolina Product logo: Respondents who have lived less than 10 years in South Carolina are more likely to be less familiar with the label. A possible explanation for this finding: Individuals who reside longer in an area have, potentially, more opportunities to see the labels (Naasz, Jablonski, and Thilmany, 2018).

Table 2. Summary Statistics and Description of Variables

Variables	Description	Mean	Std. Dev.
Demographics			
Female	Dummy variable; 1 = female, 0 otherwise.	0.845	0.361
Income	Estimated average annual household income; original question included intervals.	59.424	41.163
Age	Age in years; original question included intervals, so medians were taken when coding the data.	44.950	15.441
Less than high school education	Dummy variable; 1 = does not have a high school degree, 0 otherwise.	0.019	0.138
High school graduate or equivalent	Dummy variable; 1 = graduated high school or received an equivalent degree (e.g., GED), 0 otherwise.	0.191	0.393
Associates degree	Dummy variable; 1 = graduated from a 2-year university or college, 0 otherwise.	0.396	0.489
Bachelor's degree	Dummy variable; 1 = graduated from a 4-year university or college, 0 otherwise.	0.256	0.437
Graduate degree	Dummy variable; 1 = graduate, professional, or other advanced degree, 0 otherwise.	0.137	0.343
Caucasian	Dummy variable; 1 = Caucasian, 0 otherwise.	0.832	0.374
Children in the household	Dummy variable; 1 = yes, 0 otherwise.	0.422	0.494
Household size	Number of individuals in the household.	2.757	1.464
Nutrition and cooking			
Hours cooking per week	Average number of hours spent cooking weekly; original question included intervals, so medians were taken when coding the data.	4.739	1.800
Nutrients never	Dummy variable; 1 = respondent answered "never" to the "I need to know what nutrients the food product contains" question, 0 otherwise.	0.084	0.278
Nutrients rarely	Dummy variable; 1 = respondent answered "rarely" to the "I need to know what nutrients the food product contains" question, 0 otherwise.	0.137	0.344
Nutrients some	Dummy variable; 1 = respondent answered "sometimes" to the "I need to know what nutrients the food product contains" question, 0 otherwise.	0.334	0.472

Table 2. Summary Statistics and Description of Variables (continued)

Variables	Description	Mean	Std. Dev.
Nutrition and cooking (continued)			
Nutrients most	Dummy variable; 1 = respondent answered "most of the time" to the "I need to know what nutrients the food product contains" question, 0 otherwise.	0.298	0.458
Nutrients always	Dummy variable; 1 = respondent answered "always" to the "I need to know what nutrients the food product contains" question, 0 otherwise.	0.146	0.354
SC residency (counties are classified based on the National Center for Health Statistics (2013) urban–rural classification)			
Urban county	Dummy variable; 1 = Aiken, Anderson, Berkeley, Calhoun, Charleston, Dorchester, Edgefield, Fairfield, Greenville, Howry, Kershaw, Laurens, Lexington, Pickens, Richland, Saluda, Spartanburg, Union; 0 otherwise.	0.709	0.455
Suburban county	Dummy variable; 1 = Chester, Lancaster, York; 0 otherwise.	0.060	0.238
Small urban county	Dummy variable; 1 = Beauford, Darlington, Florence, Sumter; 0 otherwise.	0.097	0.297
Rural county	Dummy variable; 1 = Abbeville, Allendale, Bamberg, Barnwell, Cherokee, Chesterfield, Claredon, Colleton, Dillon, Georgetown, Greenwood, Hampton, Lee, Marion, Marlboro, McCormick, Newberry, Oconee, Orangeburg; 0 otherwise.	0.133	0.339
Lived in SC < 10 years	Dummy variable; 1 = < 10 years, 0 otherwise.	0.298	0.458
Purchasing outlets			
Direct market (e.g., farmers' market or CSA)	Dummy variable; 1 = direct marketing outlets are the most frequently preferred purchasing outlet for fruits and vegetables, 0 otherwise.	0.072	0.259
Specialty store (e.g. Whole Foods, Ingles, Trader Joe's, etc.)	Dummy variable; 1 = Specialty stores are the most frequently preferred purchasing outlet for fruits and vegetables, 0 otherwise.	0.045	0.207
Box store (e.g. Sam's Club or Costco)	Dummy variable; 1 = box store are the most frequently preferred purchasing outlet for fruits and vegetables, 0 otherwise.	0.012	0.107
Grocery store (e.g. Bi-Lo, Publix, Aldi)	Dummy variable; 1 = grocery stores are the most frequently preferred purchasing outlet for fruits and vegetables, 0 otherwise.	0.654	0.476
Wal-Mart	Dummy variable; 1 = Wal-Mart is the most frequently preferred purchasing outlet for fruits and vegetables, 0 otherwise.	0.216	0.412

Further, respondents living in suburban counties (based on the NCHS classification) are more likely to be completely unfamiliar with the label relative to residents of rural counties. A potential explanation for this finding is that suburban residents tend to purchase local food less often compared to rural residents and could potentially be less interested in supporting local farms (Brown, 2003; Racine et al., 2013). However, there is no statistically significant difference between rural and urban areas. This finding is consistent with Chambers et al. (2007), who did not identify differences between urban and rural residents.

A preference for point-of-sale purchases of produce is also an important determinant of the probability that a survey participant will be familiar with the logo. Specifically, compared to respondents whose preferred point of sale is Wal-Mart, consumers who purchase fruit and vegetables mainly from direct marketing outlets are more likely to be very familiar with the label. Moreover, the probability of being somewhat familiar with the label is lower for grocery store customers relative to respondents who purchase produce at Wal-Mart. This result is not surprising considering previous studies indicating that consumers prefer to purchase local food products from grocery stores (i.e., Printezis and Grebitus, 2018; Lim, Vassalos, and Reed, 2018).

We estimate marginal effects to quantify the impact of the explanatory variables on the probability that a consumer is familiar with the local label (Table 5). A 1-year increase in consumer age reduces the probability of being very familiar with the label by 0.6 percentage points. This provides further support for the need for specific marketing strategies targeted at specific age groups. This finding is consistent with Campbell and Bickle (2017), who indicated that younger generational cohorts of South Carolina consumers (i.e., millennials) are more likely to be familiar with the label, so marketers should focus on improving brand awareness among older consumers. Further, respondents who have moved to the state recently (less than 10 years ago) are, on average, 13.9 percentage points less likely to be familiar with the label. Respondents who shop at direct marketing outlets are 39.2 percentage points more likely to be familiar with the labels, and respondents who live in suburban counties are 22.5 percentage points less likely to be very familiar with the label.

Conclusions

At some point over the last four decades, every state in the United States has introduced a state-branded food campaign program. The potential economic benefit to the local economy, the opportunity for producers to differentiate their products, and a desire to define "local" to consumers are among the most commonly used arguments to explain this trend (Nganje, Hughner, and Lee, 2011; Naasz, Jablonski, and Thilmany, 2018; O'Hara and Coleman, 2017). To increase the visibility of the state-branded programs, these campaigns commonly use logos to showcase where a product was produced (Naasz, Jablonski, and Thilmany, 2018).

Previous research indicates that consumers are willing to pay a price premium for products that include a state-brand logo (i.e., Nganje, Hughner, and Lee, 2011, Carpio and Massa, 2009; Merritt et al., 2018; Bosworth, Bailey, and Curtis, 2015; Hu et al., 2012). However, overall, little is known regarding the factors that may influence consumers' familiarity with state-branded

Table 3. Descriptive Statistics by Familiarity Group

	Completely Unknown		Somewhat Familiar		Very Familiar	
Variables	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**
Demographics						
Female	0.856	0.352	0.835	0.373	0.844	0.363
Average income	56.727	38.437	55.244	38.120	63.701	44.338
Average age	46.981	15.920	47.736	15.549	41.931[bc]	14.545
High school diploma or equiv.	0.194	0.396	0.213	0.411	0.177	0.383
Associates degree	0.419	0.494	0.433	0.497	0.360	0.481
Bachelor's degree	0.256	0.438	0.220	0.416	0.275	0.448
Graduate degree	0.119	0.325	0.102	0.304	0.168	0.375
Caucasian	0.850	0.358	0.819	0.386	0.826	0.379
Household has children	0.418	0.495	0.362	0.482	0.457	0.499
Household size	2.762	1.600	2.685	1.473	2.795	1.360
Nutrients and cooking						
Nutrients never	0.119	0.324	0.087	0.282	0.057	0.233
Nutrients rarely	0.131	0.339	0.189	0.393	0.111	0.315
Nutrients sometimes	0.375	0.486	0.307	0.463	0.320	0.467
Nutrients most	0.212	0.410	0.315	0.466	0.351[b]	0.478
Nutrients always	0.162	0.370	0.102	0.304	0.160	0.367
Average hours spent cooking per week	4.578	1.864	4.830	1.833	4.802	1.735
SC residency[d]						
Lived in SC < 10 years	0.400	0.491	0.291	0.456	0.231[b]	0.422
Urban county	0.656	0.476	0.779	0.416	0.707	0.455
Suburban county	0.125	0.332	0.023	0.152	0.035[ab]	0.186
Small urban county	0.113	0.317	0.071	0.257	0.102	0.304
Rural county	0.106	0.309	0.125	0.333	0.155	0.363
Purchasing outlet						
Direct market	0.012	0.111	0.047	0.213	0.128[bc]	0.335
Specialty store	0.043	0.205	0.039	0.195	0.048	0.216
Box stores	0.006	0.079	0.024	0.152	0.009	0.094
Grocery stores	0.675	0.469	0.614	0.489	0.662	0.474
Wal-Mart	0.262	0.441	0.275	0.448	0.151[bc]	0.359

Note: Superscript a indicates statistically significant difference between the completely unfamiliar and somewhat familiar groups. Superscript b indicates statistically significant difference between the completely unfamiliar and very familiar groups. Superscript c indicates statistically significant difference between the somewhat familiar and very familiar groups, at the 5% level.

[d]Counties are classified based on the National Center for Health Statistics (NCHS) 2013 urban-rural classification.

Table 4. Multinomial Logit Model's Estimation Results (n = 512)

	This Label Is Completely Unknown to Me		Somewhat Familiar with the Label	
Variables	**Coeff.**	**Std. Error**	**Coeff.**	**Std. Error**
Demographics				
Female	0.137	0.328	0.058	0.333
Income	−0.005	0.003	−0.004	0.003
Age	0.030***	0.008	0.026***	0.008
Caucasian	0.185	0.329	−0.180	0.324
High school graduate[a]	0.446	1.019	−0.330	0.807
Associates degree[a]	0.771	1.005	−0.232	0.787
Bachelor's degree[a]	0.768	1.024	−0.404	0.813
Graduate degree[a]	0.530	1.044	−0.704	0.813
Children in the household	0.019	0.362	−0.353	0.379
No. of individuals in the household	0.110	0.121	0.093	0.127
Nutrition and cooking				
Hours cooking per week	−0.038	0.653	0.056	0.070
Nutrients rarely[b]	−0.504	0.501	0.173	0.525
Nutrients some[b]	−0.435	0.436	−0.387	0.480
Nutrients most[b]	−1.133**	0.454	−0.405	0.482
Nutrients always[b]	−0.405	0.498	−0.588	0.561
SC residency				
Urban county[c]	0.341	0.349	0.386	0.352
Suburban county[c]	1.775***	0.570	−0.155	0.776
Small urban count[c]	0.743	0.477	−0.008	0.528
Lived in SC < 10 years	0.861***	0.248	0.413	0.267
Purchasing outlets				
Direct market[d]	−2.758***	0.792	−1.383**	0.541
Specialty stores[d]	−0.369	0.606	−0.629	0.635
Box stores[d]	−0.581	1.304	0.632	1.003
Grocery stores[d]	−0.475	0.293	−0.573*	0.301
Constant	−2.116		−1.013	
Model fit statistics				
McFadden R^2	0.099			
Log-likelihood	−493.846			
Log-likelihood ratio test (46)	108.629***			
Count R^2	0.520			

Note: Base outcome is "I Am Very Familiar with This Label. Base categories are [a]less than a high school degree, [b]"I never care about the nutrient label when making a purchase decision," [c]rural county, [d]Wal-Mart. Single, double, and triple asterisks (*, **, ***) indicate significance at the 10%, 5%, and 1% levels, respectively.

Table 5. Multinomial Logit Marginal Effects

	Completely Unfamiliar		Somewhat Familiar		Very Familiar	
Variables	**Coeff.**	**Std. Error**	**Coeff.**	**Std. Error**	**Coeff.**	**Std. Error**
Demographics						
Female	0.021	0.055	0.000	0.053	−0.021	0.060
Income	0.000	0.001	0.000	0.000	0.001	0.001
Age	0.004***	0.001	0.002*	0.001	−0.006***	0.001
High school[a]	0.111	0.185	−0.085	0.106	−0.025	0.171
Associates degree[a]	0.161	0.166	−0.094	0.112	−0.067	0.162
Bachelor's degree[a]	0.177	0.177	−0.119	0.105	−0.057	0.164
Graduate degree[a]	0.151	0.193	−0.138	0.091	−0.013	0.180
Caucasian	0.047	0.053	−0.047	0.055	−0.001	0.059
Children	0.030	0.063	−0.062	0.060	0.032	0.066
Household size	0.014	0.020	0.008	0.020	−0.022	0.022
Nutrients and cooking						
Nutrients rarely[b]	−0.101	0.069	0.068	0.089	0.032	0.097
Nutrients some[b]	−0.052	0.067	−0.035	0.070	0.087	0.082
Nutrients most[b]	−0.172***	0.063	0.005	0.073	0.166*	0.086
Nutrients always[b]	−0.036	0.078	−0.069	0.075	0.105	0.096
Hours cooking	−0.011	0.011	0.013	0.011	−0.001	0.012
SC residency						
Lived in SC < 10 years	0.137***	0.044	0.003	0.041	−0.139***	0.044
Urban county[d]	0.036	0.058	0.042	0.054	−0.077	0.061
Suburban county[d]	0.382***	0.096	−0.158**	0.064	−0.225***	0.082
Small urban county[d]	0.150	0.092	−0.060	0.074	−0.090	0.081
Purchasing outlets						
Direct market[c]	−0.280***	0.043	−0.112*	0.064	0.392***	0.072
Specialty stores[c]	−0.028	0.099	−0.076	0.080	0.104	0.111
Box stores[c]	−0.140	0.152	0.171	0.200	−0.031	0.202
Grocery[c]	−0.044	0.049	−0.065	0.048	0.110**	0.052

Note: Base categories are [a]less than a high school degree, [b]"I never care about the nutrient label when making a purchase decision," [c]Wal-Mart, [d]rural county. Single, double, and triple asterisks (*, **, ***) indicate significance at the 10%, 5%, and 1% levels, respectively.

logos, a critical factor for campaign effectiveness and success. Further, considering that a substantial amount of the campaigns' budgets is devoted to promotion and advertising, it is crucial to identify appropriate target groups.

This study is an effort to cover this gap in the literature. Using a sample of South Carolina residents (n = 512), we examined factors influencing their degree of familiarity with the "Certified South Carolina Product" logo. The campaign was originally introduced in 2007, and approximately 70% of the budget is for advertising and promotional endeavors. We evaluated consumers' familiarity with the label using a 3-point Likert-scale ("completely unknown," "somewhat familiar," "very familiar").

Our findings indicate that consumers' demographic characteristics, except for respondent age, do not have a statistically significant effect on their degree of familiarity with the label. Consumers who prefer direct marketing outlets to purchase fresh produce are more likely to be familiar with the logo compared to respondents whose preferred outlet is Wal-Mart. People who have resided in the state for more than 10 years are also more likely to be familiar with the logo. Last, the results suggest that consumers living in suburban counties (based on the NCHS urban–rural continuum) are more likely to be unfamiliar with the Certified SC Product logo.

Considering that more than one-third of survey participants (31.2%) are not familiar with the Certified SC Product logo, the aforementioned findings can be helpful to producers, restaurants, and policy makers who want to increase residents' familiarity with the logo. According to a recent survey, the primary target group for the Certified SC Product marketing campaign includes females 25–54 years old (Crenwelge, 2016). However, based on our findings, a preferred course of action could be to focus on residents who purchase groceries primarily at Wal-Mart, and on new residents instead of focusing on demographic characteristics. New residents are crucial, considering that South Carolina has added more than 310,000 residents from domestic migration since 2010 (Slade, 2018).

A potential shortcoming of the study is that it focuses only on South Carolina. However, program success varies based on state residents' preferences and state regulations (Naasz, Jablonski, and Thilmany, 2018). Potential future work should include similar research from different states to evaluate potential similarities and differences across states. Further, future research is needed to investigate the effectiveness of different outlets (e.g., farmers' markets, grocery stores, restaurants) for promoting states' certified products as well as comparing factors influencing degree of familiarity across labels.

Acknowledgments

The authors thank the anonymous reviewers and the editor for beneficial feedback. This work was funded by the South Carolina Natural Resources Conservation Services (Award #69-4939-17-142).

References

Aborisade, O., C. Carpio, L.G. Mathews, T. Boonsaeng, A. Perrett, and K. Descieux. 2016. "Evaluating the Marketing Impact of a Regional Branding Program Using Contingent Valuation Methods: The Case of the Appalachian Grown Branding Program." Paper presented at the annual meeting of the Southern Agricultural Economics Association Annual Meeting, San Antonio, TX, February 6–9.

Ahearn, M., K. Liang, and S. Goetz. 2018. "Farm Business Financial Performance in Local Foods Value Chains." *Agricultural Finance Review* 78(4): 470–488.

Aprile, M.C., V. Caputo, and R. Nayga. 2016. "Consumers' Preferences and Attitutes toward Local Food Products." *Journal of Food Products Marketing* 22(1): 19–42.

Bogomolova, S., A. Loch, L. Lockshin, and J. Buckley. 2016. "Consumer Factors Associated with Purchasing Local versus Global Value Chain Foods." *Renewable Agriculture and Food Systems* 33(1): 33–46.

Bosworth, R.C., D. Bailey, and K.R. Curtis. 2015. "Consumer Willingness to Pay for Local Designations: Brand Effects and Heterogeneity at the Retail Level." *Journal of Food Products Marketing* 21(3): 274–292.

Brown, C. 2003. "Consumers' Preferences for Locally Produced Food: A Study in Southeast Missouri." *American Journal of Alternative Agriculture* 18(4): 213–224.

Cameron, C., and P.K. Trivedi. 2010. *Microeconometrics Using Stata*. College Station, TX: Stata Press.

Campbell, B., I. Lesschave, and A.J. Bowen. 2010. "Purchase Drivers of Canadian Consumers of Local and Organic Produce." *HortScience* 45(10): 1480–1488.

Campbell, J.M., and M.C. Bickle. 2017. "Bridging the Gap between Millennial Consumers, Social Media, and Agricultural Branding Programs: A Qualitative Assessment." *Journal of International Food and Agribusiness Marketing* 29(4): 346–365.

Carpio, C., and O. Massa. 2009. "Consumer Willingness to Pay for Locally Grown Products: The Case of South Carolina." *Agribusiness* 25(3): 412–426.

Carpio, C., and O. Massa. 2010. "To Fund or Not to Fund: Assessment of the Potential Impact of a Regional Promotion Campaign." *Journal of Agricultural and Resource Economics* 35(2): 245–260.

Chambers, S., A. Lobb, L. Butler, K. Harvey, and W.B. Traill. 2007. "Local, National and Imported Foods: A Qualitative Study." *Appetite* 49(1): 208–213.

Cowburn, G., and L. Stockley. 2004. "Consumer Understanding and Use of Nutrition Labelling: A Systematic Review." *Public Health Nutrition* 8(1): 21–28.

Crenwelge, J. 2016. *State-Sponsored Agriculture Promotion Programs: Growing Brands.* MS Thesis, Texas State University, San Marcos, TX.

Feldmann, C., and U. Hamm. 2015. "Consumers' Perceptions and Preferences for Local Food: A Review." *Food Quality and Preference* 40: 152–164.

Giovannucci, G., E. Barham, and R. Pirog. 2010. "Defining and Marketing `Local' Foods: Geographical Indications for US Products." *Journal of World Intellectual Property* 13(2): 94–120.

Govindasamy, R., B. Schilling, K. Sullivan, C. Turvey, L. Brown, and V. Puduri. 2004. *Returns to the Jersey Fresh Promotional Program: The Impacts of Promotional Expenditures on Farm Cash Receipts in New Jersey*. Publication PR-0404-006. New Brunswick, NJ: Rutgers University and the Food Policy Institute .

Hinrichs, C.C. 2000. "Embeddedness and Local Food Systems: Notes on Two Types of Direct Agricultural Market." *Journal of Rural Studies* 16: 295–303.

Hu, W., M.T. Batte, T. Woods, and S. Ernst. 2012. "Consumer Preferences for Local Production and Other Value-Added Label Claims for a Processed Food Product." *European Review of Agricultural Economics* 39(3): 489–510.

Hughes, D., and O. Massa. 2015. "The Economic Impact of Farmers' Markets and a State Level Locally Grown Campaign." *Food Policy* 54: 78–84.

Ingram, D.D., and S.J. Franco. 2013. "2013 NCHS Urban – Rural Classification Scheme for Counties." *Vital Health Statistics* 2(166): 1–73.

Jekanowski, M.D., D.R. Williams II, and W.A. Schiek. 2000. "Consumers' Willingness to Purchase Locally Produced Agricultural Products: An Analysis of an Indiana Survey." *Agricultural and Resource Economics Review* 29(8): 43–53.

Katchova, A. 2006. "The Economic Well-Being of Farm and Nonfarm Households: Evidence from two National Surveys." Paper presented at the annual meeting of the American Agricultural Economics Association, Long Beach, CA, July 23–26.

Katz, M., B. Campbell, and Y. Liu. 2019. "Local and Organic Preference: Logo versus Text." *Journal of Agricultural and Applied Economics* 51: 328–347

Khachatryan, H., A. Rihn, B. Campbell, B. Behe, and C. Hall. 2017. "How Do Consumer Perceptions of `Local` Production Benefits Influence Their Visual Attention to State Marketing Programs?" *Agribusiness: An International Journal* 34: 390–406.

Knight, A.J. 2013. "Evaluating Local Food Programs: The Case of Select Nova Scotia." *Evaluation and Program Planning* 36(1): 29–39.

Lim, K.H., M. Vassalos, and M. Reed. 2018. "Point-of-Sale Specific Willingness to Pay for Quality-Differentiated Beef." *Sustainability* 10(7): 2560.

McCaffrey, S.J., and N.B. Kurland. 2015. "Does `Local' Mean Ethical? The U.S. `Buy Local' Movement and CSR in SMEs." *Organization and Environment* 28(3): 286–303.

Meas, T., W. Hu, M.T. Batte, T. Woods, and S. Ernst. 2014. "Substitutes of Complements? Consumer Preference for Local and Organic Food Attributes." *American Journal of Agricultural Economics* 97(4): 1044–1071.

Merritt, M., K.L. Delong, A.P. Griffith, and K. Jensen. 2018. "Consumer Willingness to Pay for Tennessee Certified Beef." *Journal of Agricultural and Applied Economics* 50(2): 233–254.

Mugera, A., M. Burton, and E. Downsborough. 2017. "Consumer Preference and Willingness to Pay for a Local Label Attribute in Western Australian Fresh and Processed Products." Journal of Food Products Marketing 23(4): 452–472.

Naasz, E., B.B.R. Jablonski, and D. Thilmany. 2018. "State Branding Programs and Local Food Purchases." *Choices* 33(3): 1–6.

Nganje, W.E., R.S. Hughner, and N.E. Lee. 2011. "State-Branded Programs and Consumer Preference for Locally Grown Produce." *Agricultural and Resource Economics Review* 40(1): 20–31.

Niblock, J.S. 2017, May 19. "Certified SC Grown celebrates 10th anniversary with over 2,000 members." *Produce News*. Available online: http://www.producenews.net/category-list/21350-certified-sc-grown-celebrates-10th-anniversary-with-over-2-000-members.

O'Hara, J., and C. Coleman. 2017. "The Impacts of the Farmers Market and Local Food Promotion programs." *Community Development* 48(5): 681–696.

Onken, K.A., and J.C. Bernard. 2010. "Catching the `Local' Bug: A Look at State Agricultural Marketing Programs." *Choices* 25(1): 1–7.

Onken, K.A., J.C. Bernard, and J.D. Pesek. 2011. "Comparing Willingness to Pay for Organic, Natural, Locally Grown, and State Marketing Program Promoted Foods in the Mid-Atlantic Region." *Agricultural and Resource Economics Review* 40(1): 33–47.

Onozaka, Y., and D.T. McFadden. 2011. "Does Local Labeling Complement or Compete with Other Sustainable Labels? A Conjoint Analysis of Direct and Joint Values for Fresh Produce Claims." *American Journal of Agricultural Economics* 93(3): 663–706.

Ontario Ministry of Agriculture, Food and Rural Affairs. 2016. *Ontario's Local Food Report, 2015/16 Edition*. Available online: http://www.omafra.gov.on.ca/english/about/local_food_rpt16.pdf [Accessed, May 2, 2019].

Otto, D., and T. Varner. 2005. *Consumers, Vendors, and the Economic Importance of Iowa Farmers' Markets: An Economic Impact Survey Analysis*. Ames, IA: Leopold Center for Sustainable Agriculture, Iowa State University.

Patterson, P.M., H. Olofsson, T. Richards, and S. Sass. 1999. "An Empirical Analysis of State Agricultural Product Promotions: A Case Study on Arizona Grown." *Agribusiness* 15(2): 179–196.

Porral, C.C., and J.P. Mangin. 2016. "Food Private Label Brands: The Role of Consumer Trust on Loyalty and Purchase Intention." *British Food Journal* 118(3): 679–696.

Printezis, I., and C. Grebitus. 2018. "Marketing Channels for Local Food." *Ecological Economics* 152: 161–171.

Racine, E.F., E.A., Mumford, S.B. Laditka, and A.E. Lowe. 2013. "Understanding Characteristics of Families Who Buy Local Produce." *Journal of Nutrition Education and Behavior* 45(1): 30–38.

Rossi, J.D., T. G. Johnson, and M. Hendrickson. 2017. "The Economic Impacts of Local and Conventional Food Sales." *Journal of Agricultural and Applied Economics* 49: 555–570.

Slade, D. 2018, December 12. "People Relocating from Other States Made South Carolina the 9th-Fastest-Growing in US." *Post and Courier*.

South Carolina Department of Agriculture. 2019. *Certified South Carolina*. Available online: https://www.certifiedscgrown.com/programs/member-program-info/ [Accessed July 27, 2019].

Tootelian, D.H., A. Liebich, and C. Thompson. 2007. "An Explanatory Study of the Impact of Non-Commodity-Specific Agricultural Promotion Campaigns on Consumer Purchasing Patterns." *Journal of Food Products Marketing* 13(2): 103–122.

Zarebanadkoki, S., and T. Woods. 2015. "The Merchandising Reach of the Kentucky Proud Brand – Awareness and Purchase Linkages." Paper presented at the annual meeting of the Food Distribution Research Society, Philadelphia, PA, October 9–13.