



Preferences for Local, Organic, and State Marketing Program Promoted Foods: A Choice Experiment of Mid-Atlantic Consumers



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Background & Objectives

As interest in locally grown foods and food origins continues to rise, state-sponsored marketing programs have likewise responded by increasing in number. Paralleling this trend towards locally grown, substantial increases in consumer interest for organic and natural foods have been heavily impacting the U.S. food system. Comprehending consumer attitudes towards and preferences between these trends would be of importance to producers, marketers and state marketing agencies. With this in mind, the objectives of this research were to:

- 1) Determine consumer preferences for the attributes of locally grown, organic, and promoted by a state marketing program
- 2) Determine how these preferences may be different depending on whether these products were to be purchased at a grocery store or a farmers' market
- 3) Determine if these findings vary by state across the Mid-Atlantic region

Methods

Survey Mailing

This research was conducted through a choice experiment featuring strawberry preserves, as part of a survey mailed in November 2009 to 1,000 households from 5 Mid-Atlantic states:

- Delaware, Maryland, New Jersey, Pennsylvania, & Virginia

for a total potential sample of 5,000. The survey response rate was 39.6% at its close in January.

Experimental Design

4 product attributes:

- Price, Purchase venue, Production method, & Location

- Price (3 levels): \$2.99, \$3.99, \$4.99 (Determined using current market prices from a variety of purchasing venues)
- Purchase venue (2 levels): Farmers' Market and Grocery Store
- Production method (2 levels): Organic and Natural
- Location (3 levels): Local, Non-Local, and the State Marketing Program of that state

Strawberry preserves were chosen as they are a value-added food product available locally in each state, are not state and/or region specific, and are a familiar product that a majority of consumers should recognize. The final design contained 4 choices per set (3 choices + "none of these"). Respondents were presented with 6 different sets of strawberry preserves, with 2 different choice experiment versions mailed per state.

Example CE Set

9b) FOOD PRODUCT #2: One 18 oz. jar of **Strawberry Preserves**.
 For EACH of the 6 choice sets below, please check one box per set:

SET #1

"Jersey Fresh" Natural Grocery Store \$4.99	Local Natural Farmers Market \$3.99	Non-Local Organic Grocery Store \$2.99	None
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

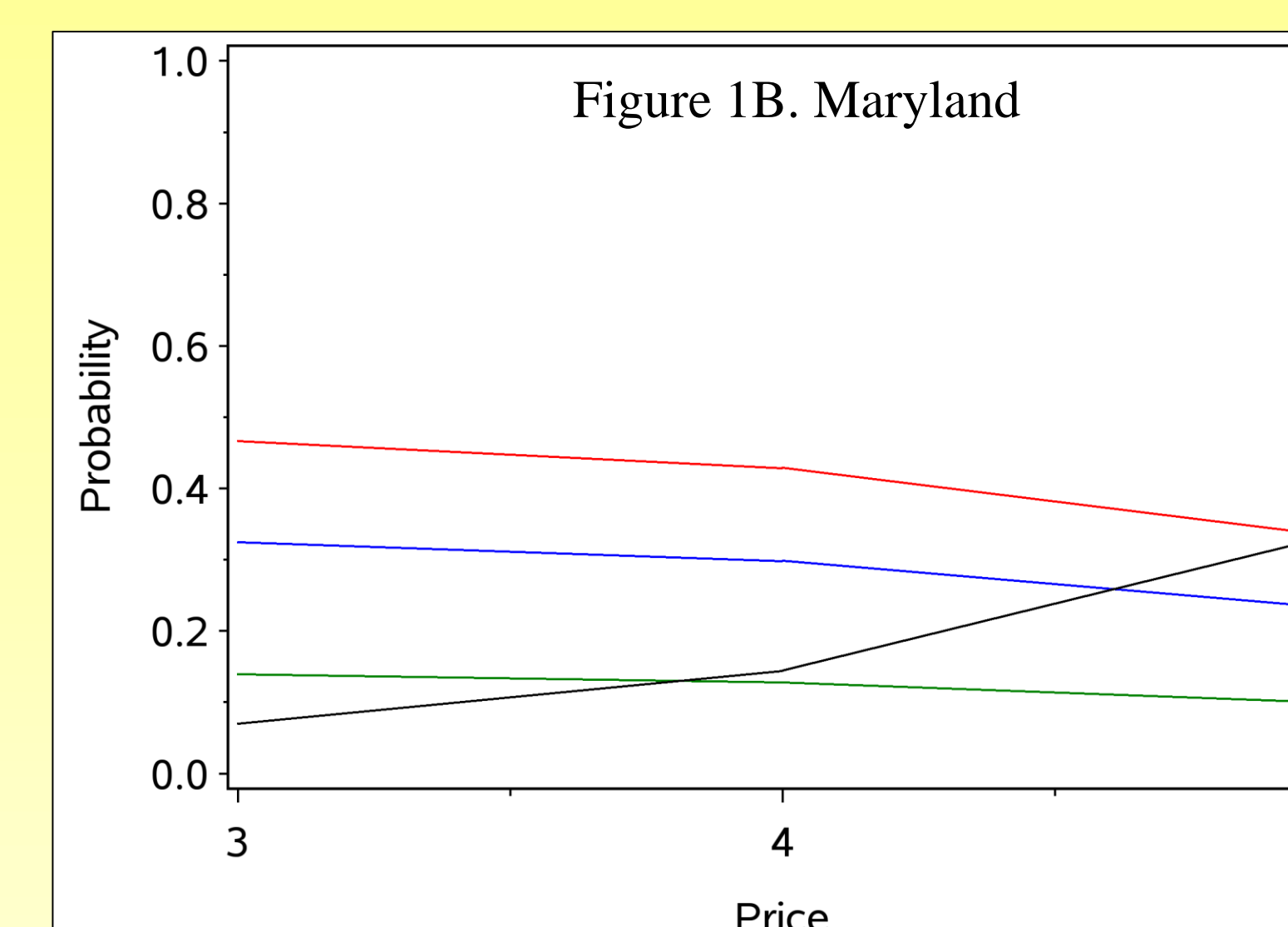
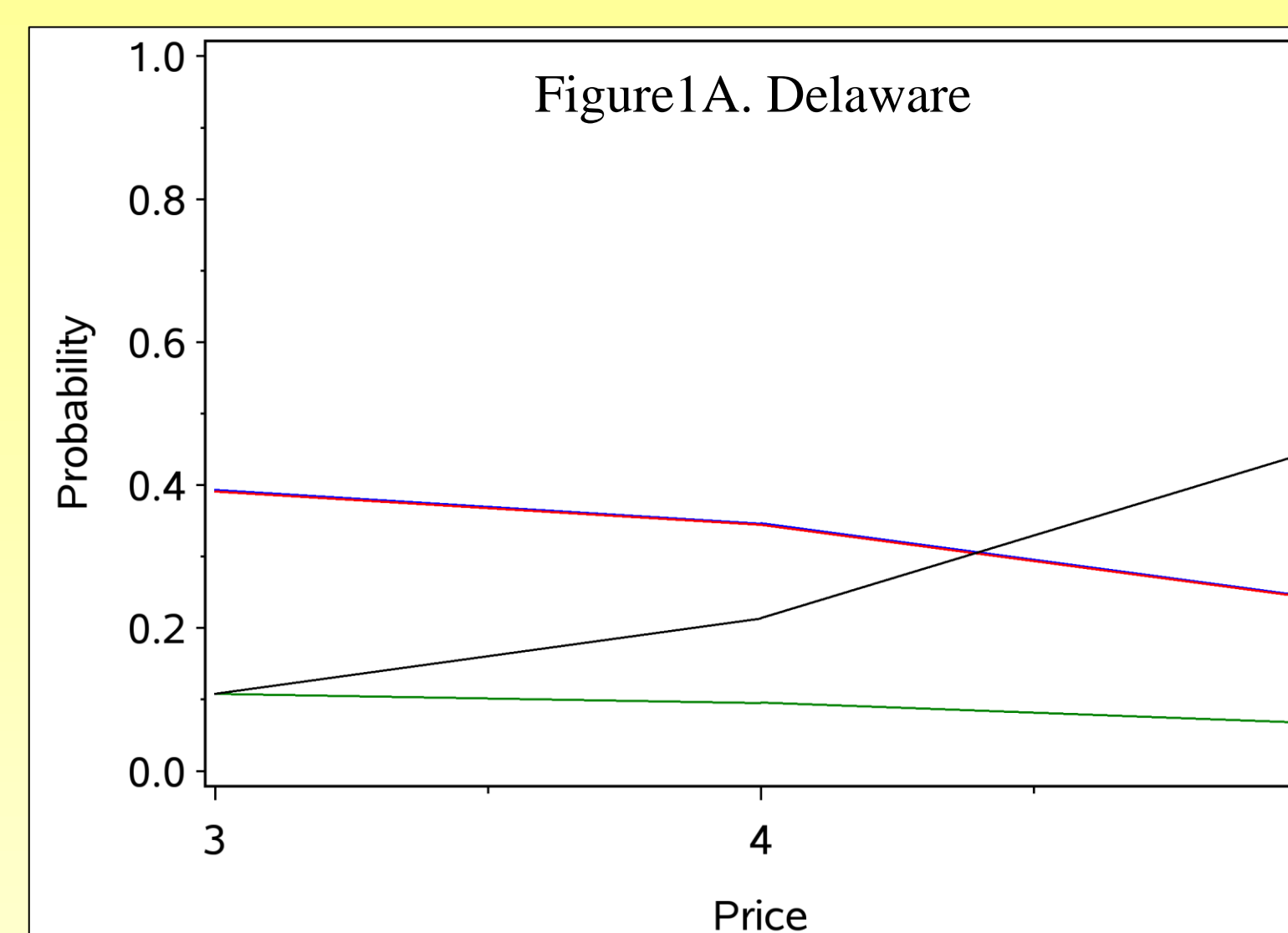
Data Analysis

A Conditional Logit Model (CLM) was used to fit the data. The CLM uses characteristics of the outcomes to predict the selected choice to fit the data (Long, 1997, So and Kuhfeld, 2009). The predicted probability of the choices in the CLM are defined as:

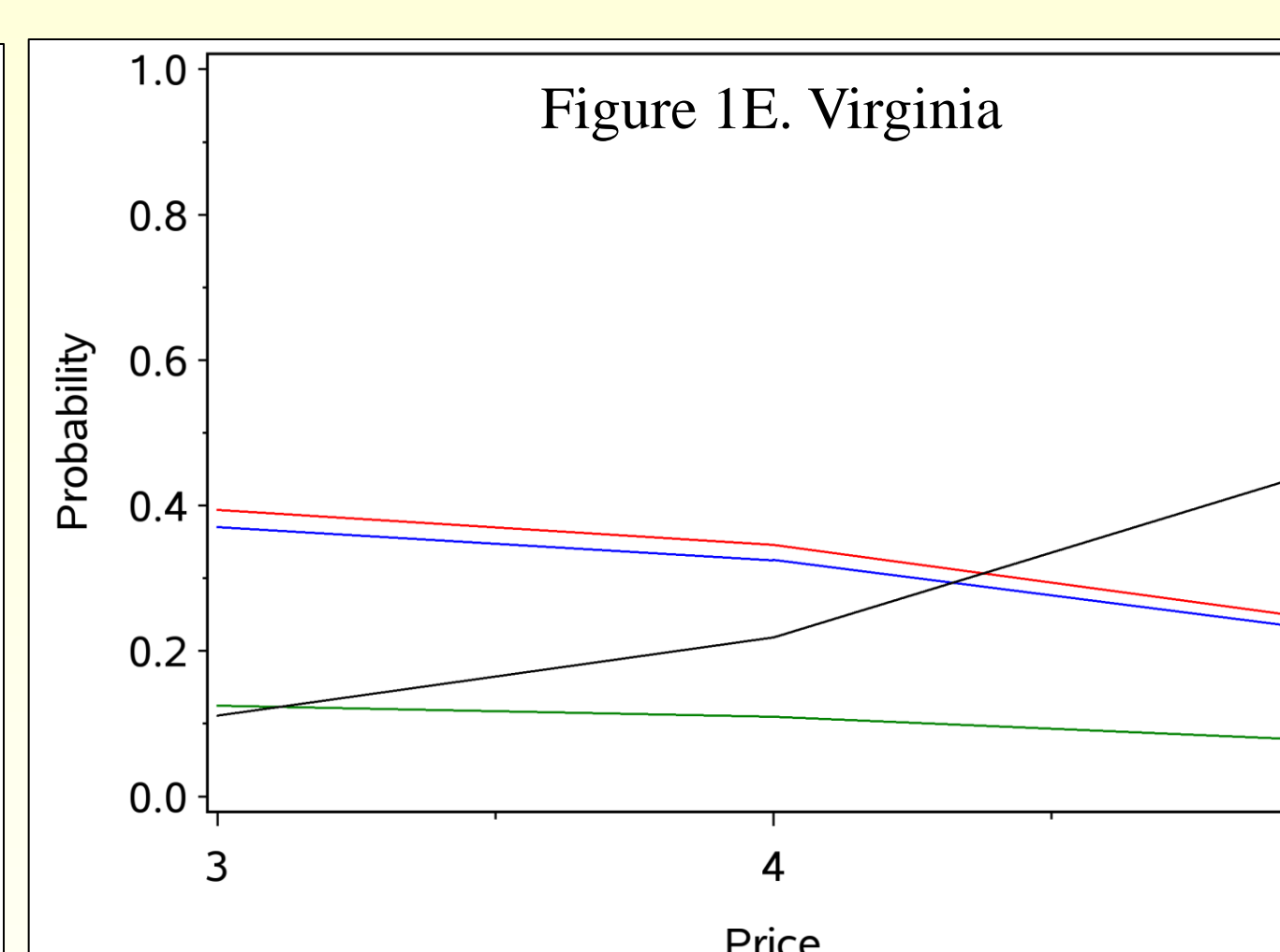
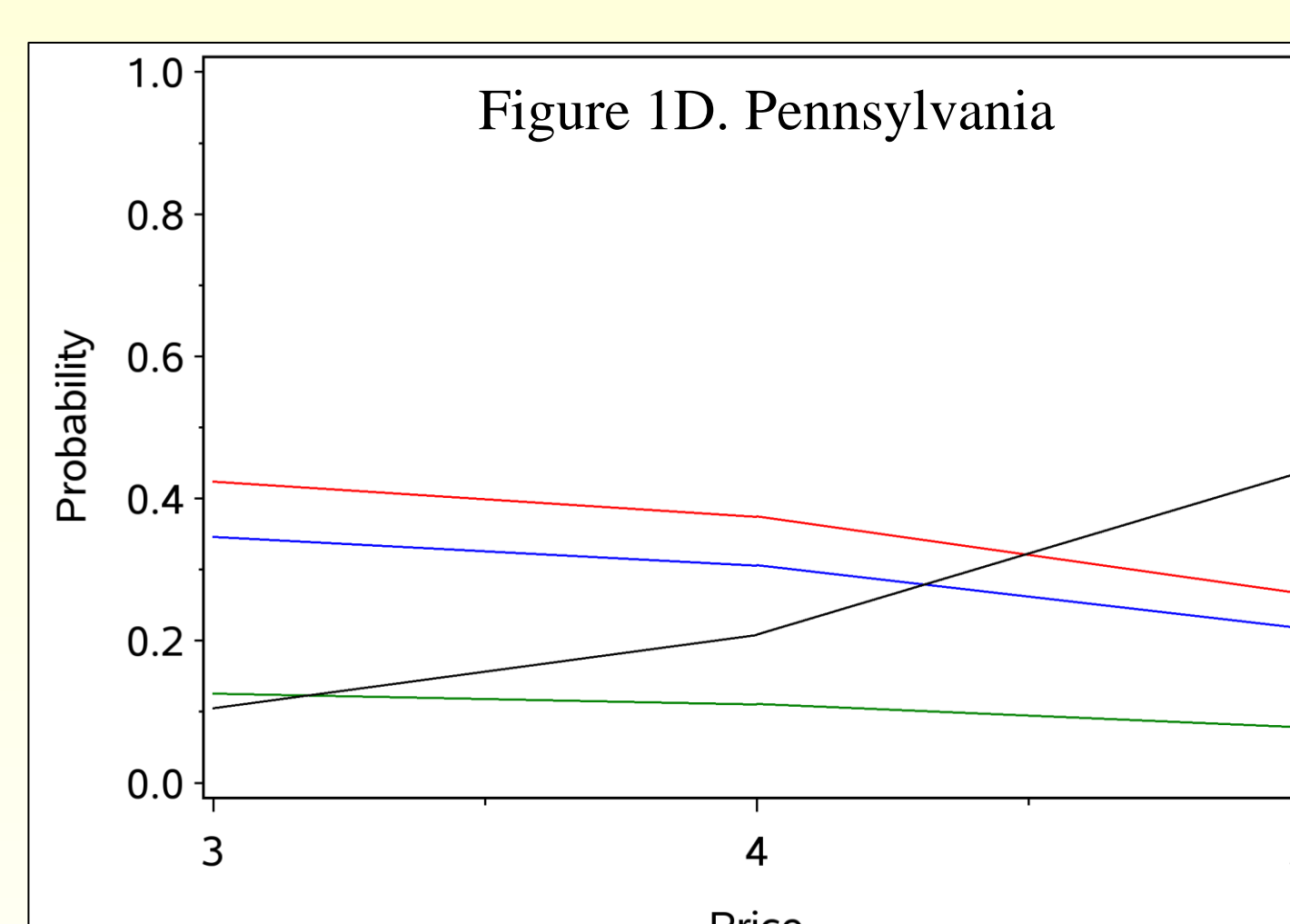
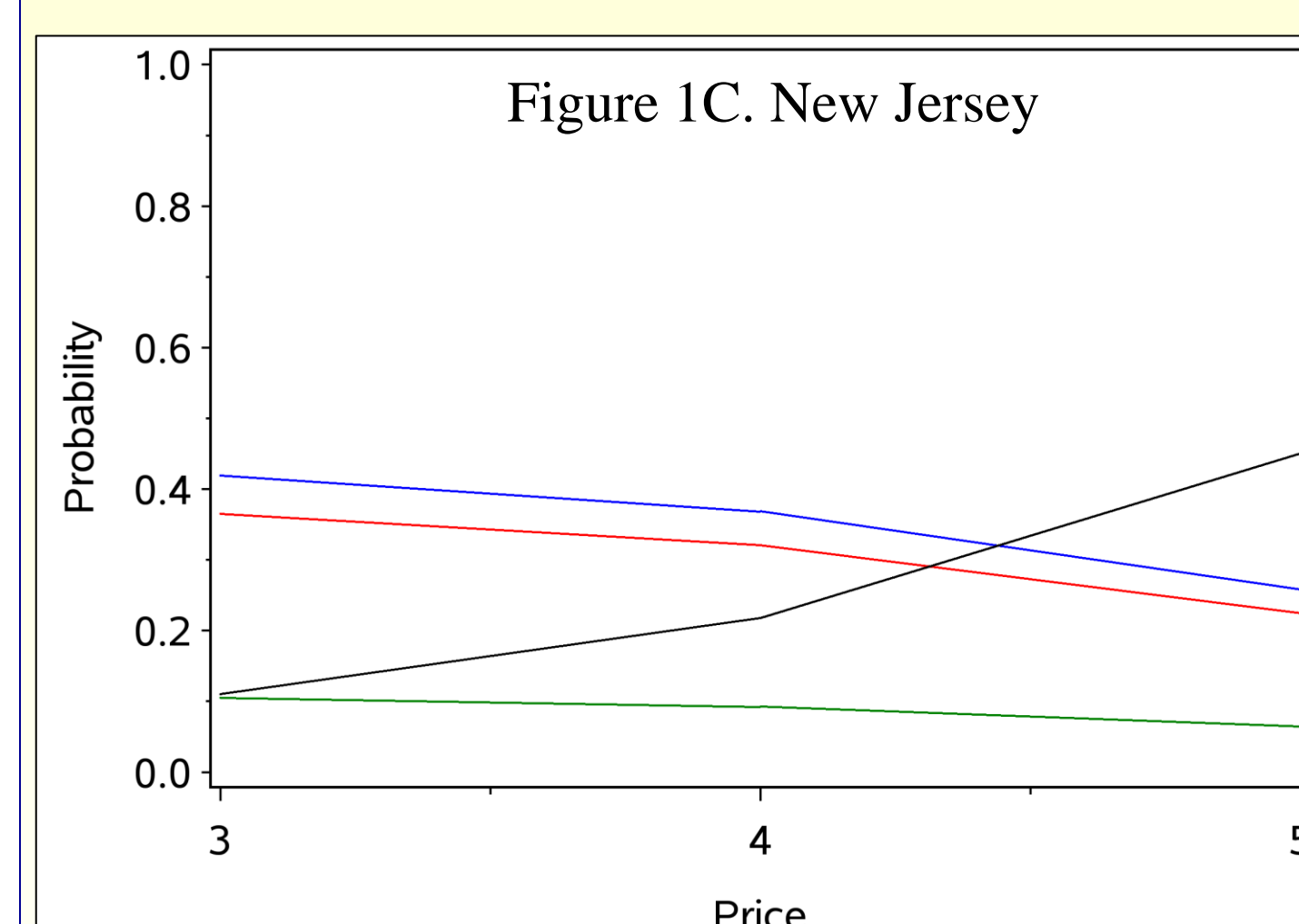
$$\Pr(y_i = d | z_i) = \frac{\exp(z_{id}\gamma)}{\sum_{c=1}^4 \exp(z_{ic}\gamma)}$$

where y_i is the choice for respondent i coded 1, 2, 3 or 4 to refer to state program, local, non local or none respectively, z_{id} is the vector of covariates for the d -th choice and γ is the common coefficient vector for all choices.

Results



Figures 1A-1E. Probability of Choice by Price, for the Organic and Farmers' Market Attributes



Results and Discussion

Table 1. CLM Results, Strawberry Preserves

Variable	Estimated Coefficient	Standard Error	Pr > ChiSq
ChoiceLocal	-0.00653	0.05577	0.9068
NJChoiceLocal	-0.13139	0.08142	0.1066
MDChoiceLocal	0.37054	0.07980	<.0001
PAChoiceLocal	0.20941	0.07861	0.0077
VAChoiceLocal	0.06784	0.08158	0.4057
ChoiceNon-Local	-1.28961	0.07421	<.0001
NJChoiceNon-Local	-0.09288	0.11066	0.4013
MDChoiceNon-Local	0.44309	0.10420	<.0001
PAChoiceNon-Local	0.27456	0.10357	0.0080
VAChoiceNon-Local	0.20127	0.10739	0.0609
ChoiceNone	-2.66418	0.53194	<.0001
Market	-0.45756	0.13667	0.0008
Price*Market	0.09046	0.03749	0.0158
Price	0.04969	0.28034	0.8593
Price²	-0.13577	0.03575	0.0001
Organic	-0.11226	0.05423	0.0384
NJOrganic	0.04432	0.07967	0.5780
MDOrganic	0.24377	0.07735	0.0016
PAOrganic	-0.09850	0.07681	0.1997
VAArganic	-0.08495	0.07943	0.2849

*Variables in bold are significant at the 5% level.

Graphically, the model shows Delaware respondents exhibiting little preference difference between the attributes of "Local" and "State Program". In both Maryland and Pennsylvania, respondents exhibited a higher preference for Local compared to State Program. For New Jersey respondents, although not significant in the model, State Program was preferred compared to Local. This is not surprising as New Jersey's State Marketing Program "Jersey Fresh" is one of the oldest and most well-established of programs. However, few state programs are as well known and heavily promoted as New Jersey's. Perhaps states with lesser known programs, such as Delaware, who just recently chose to cut their "Grown Fresh with Care in Delaware" campaign are headed in the right direction. In the future, an increased focus on more general "Buy Local" promotions by state marketing agencies will likely continue to be seen, even more so in states with relatively new or lesser established state programs.

For strawberry preserves, there is little preference difference between the farmers' market and grocery store purchasing venues across all five states. Perhaps consumers shopping at farmers' market venues are there because they are attracted to the non-value-added products traditionally associated with this venue, such as fresh produce. Consumers may not be as concerned with purchasing venue when shopping for value-added products.