

Appendix J

Models of Participant Satisfaction With and Use of Prescribed Foods

This appendix provides results from the multivariate analyses described in chapter 7. For most categories of prescribed food, three general binary logit models are estimated: (1) the survey respondent being “very satisfied” with allowed brands; (2) “all” prescribed food being purchased in the month prior to the interview; and (3) “all” purchased food being consumed.¹ Two specifications are presented for each general model, one with and one without interaction terms between residence in a State with food-item restrictions and presence of (a) a special diet or (b) a food allergy. Explanatory variables are:

• African-American	Respondent is African-American
• Hispanic	Respondent is Hispanic
• High school graduate	Respondent graduated from high school
• Number of WIC members	The total number of WIC participants in the family
• Special diet	At least one WIC participant in family was on a special diet, with special diets including vegetarian diets, religious diets, and diets for health-related reasons
• Food allergy	At least one WIC participant in family had a food allergy, as defined in chapter 7
• Resides in State with restrictions	Respondent resides in a State with food-item restrictions, as defined in chapter 6
• Special diet * restricted State	Interaction term between special diet and restricted State
• Food allergy * restricted State	Interaction term between food allergy and restricted State

Too few respondents indicated that they followed a vegetarian or religious diet to include these diets as separate variables in the models.

Some respondents reported that they (or a WIC member of the family) had both a special diet and a food allergy. To the extent that this occurs, the variances of the estimated coefficients of the two variables will increase, and the likelihood of observing a statistically significant coefficient will decrease. The correlation in the two variables, however, is low. Of the 487 respondents reporting a special diet, only 70 reported having an allergy. Of the 130 respondents with allergies, 70 were on special diets. The Pearson correlation coefficient is 0.11.

¹ The survey did not ask about satisfaction with allowed brands of eggs, peanut butter, and dried beans/peas, so no models of satisfaction are specified for these three food categories.

The excluded category in each model is White participants living in a State without food restrictions (for the food category examined) who do not have a high school education and special diet or food allergy.

For cereals, two sets of models are presented. “Model 1” treats both California and Oklahoma as States with restrictive food-item policies, whereas “model 2” considers only Oklahoma as a restrictive State with regard to allowed brands of cereals.

For each model, the following information is provided:

- dependent variable
- mean (cross-State average) of the dependent variable
- number of observations in the model
- percent of concordant pairs
- estimated coefficient for each explanatory variable in the model
- p-value, or statistical significance, of each estimated coefficient
- estimated effect of a unit change at the mean value of the dependent variable, for each explanatory variable

The percentage of concordant pairs is calculated over all pairs of observations with different responses. (Thus, for example, each observation in which the respondent said she was “very satisfied” with allowed brands is compared, one by one, with all observations in which the respondent did not indicate being “very satisfied.”) A pair of observations is concordant if the one with the affirmative response has the higher predicted value of an affirmative response. The higher the percentage of concordant pairs, the better the explanatory power of the model.

The P-value heading in the following tables stands for probability value, a measure of the statistical significance of the estimated coefficient.

A parameter’s estimated impact at the mean is calculated as $b * p * (1-p)$, where b is the estimated coefficient and p is the mean of the dependent variable.

Finally, in terms of interpreting the estimated coefficients of the special diet and food allergy variables, these coefficients will be negative and statistically significant if, respectively, survey respondents with special diets or food allergies were less satisfied with allowed brands than other survey respondents. Similarly, the estimated coefficients will be negative in the other models if survey respondents with dietary restrictions were less likely to purchase all the prescribed food in a category or to consume all the food purchased.

A significant negative estimated coefficient on a variable indicating a special diet or food allergy, however, does not mean that food-item restrictions are related to the decreased satisfaction or purchase or consumption behavior. One must also consider the estimated coefficients for the interactive terms in each model. If the estimated coefficients on any interactive terms are negative and statistically significant, this evidence would support a hypothesis that food-item restrictions have a disproportionate impact on WIC participants with special diets or food allergies.

Table J-1—Participant satisfaction with allowed brands of milk

Dependent variable:	Very satisfied with brands of milk		
Mean of dependent variable:	0.893		
Number of observations	1,268		
Percent concordant pairs	54.5		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.605	<.0001	0.249
African-American	-0.216	0.398	-0.021
Hispanic	-0.290	0.220	-0.028
High school graduate	0.055	0.795	0.005
Number of WIC members	-0.014	0.909	-0.001
Special diet	-0.249	0.205	-0.024
Food allergy	-0.540	0.056	-0.052
Resides in State with milk restrictions	-0.076	0.714	-0.007
Connecticut, North Carolina, Oklahoma, and Texas are defined as States with milk restrictions.			

Table J-2—Participant satisfaction with allowed brands of milk, interactive model

Dependent variable:	Very satisfied with brands of milk		
Mean of dependent variable:	0.893		
Number of observations	1,268		
Percent concordant pairs	53.7		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.678	<.0001	0.256
African-American	-0.220	0.388	-0.021
Hispanic	-0.283	0.230	-0.027
High school graduate	0.062	0.772	0.006
Number of WIC members	-0.011	0.931	-0.001
Special diet	-0.393	0.262	-0.038
Food allergy	-0.746	0.128	-0.071
Resides in State with milk restrictions	-0.202	0.469	-0.019
Special diet * restricted State	0.209	0.621	0.020
Food allergy * restricted State	0.297	0.617	0.028
Connecticut, North Carolina, Oklahoma, and Texas are defined as States with milk restrictions.			

Table J-3—Purchase of prescribed milk

Dependent variable: All prescribed milk purchased
Mean of dependent variable: 0.912
Number of observations 1,027
Percent concordant pairs 55.1

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.510	<.0001	0.201
African-American	-0.217	0.437	-0.017
Hispanic	0.257	0.367	0.021
High school graduate	-0.253	0.329	-0.020
Number of WIC members	0.007	0.963	0.001
Special diet	-0.057	0.802	-0.005
Food allergy	-0.508	0.123	-0.041
Resides in State with milk restrictions	0.022	0.924	0.002

Connecticut, North Carolina, Oklahoma, and Texas are defined as States with milk restrictions.

Table J-4—Purchase of prescribed milk, interactive model

Dependent variable: All prescribed milk purchased
Mean of dependent variable: 0.912
Number of observations 1,027
Percent concordant pairs 53.8

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.406	<.0001	0.193
African-American	-0.220	0.432	-0.018
Hispanic	0.256	0.369	0.021
High school graduate	-0.257	0.323	-0.021
Number of WIC members	-0.004	0.979	0.000
Special diet	0.346	0.411	0.028
Food allergy	-0.568	0.333	-0.046
Resides in State with milk restrictions	0.227	0.450	0.018
Special diet * restricted State	-0.583	0.245	-0.047
Food allergy * restricted State	0.070	0.921	0.006

Connecticut, North Carolina, Oklahoma, and Texas are defined as States with milk restrictions.

Table J-5—Consumption of purchased milk

Dependent variable:	All purchased milk consumed		
Mean of dependent variable:	0.845		
Number of observations	1,025		
Percent concordant pairs	62.5		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	1.846	<.0001	0.242
African-American	-0.030	0.893	-0.004
Hispanic	0.667	0.005	0.087
High school graduate	-0.144	0.485	-0.019
Number of WIC members	0.189	0.124	0.025
Special diet	-0.321	0.074	-0.042
Food allergy	-0.029	0.922	-0.004
Resides in State with milk restrictions	-0.543	0.008	-0.071

Connecticut, North Carolina, Oklahoma, and Texas are defined as States with milk restrictions.

Table J-6—Consumption of purchased milk, interactive model

Dependent variable:	All purchased milk consumed		
Mean of dependent variable:	0.845		
Number of observations	1,025		
Percent concordant pairs	62.7		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	1.982	<.0001	0.260
African-American	-0.038	0.863	-0.005
Hispanic	0.672	0.005	0.088
High school graduate	-0.136	0.510	-0.018
Number of WIC members	0.194	0.116	0.025
Special diet	-0.552	0.127	-0.072
Food allergy	-0.474	0.379	-0.062
Resides in State with milk restrictions	-0.744	0.009	-0.097
Special diet * restricted State	0.312	0.454	0.041
Food allergy * restricted State	0.615	0.338	0.081

Connecticut, North Carolina, Oklahoma, and Texas are defined as States with milk restrictions.

Table J-7—Participant satisfaction with allowed brands of cheese

Dependent variable: Very satisfied with allowed brands of cheese
Mean of dependent variable: 0.836
Number of observations 1,255
Percent concordant pairs 56.4

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.087	<.0001	0.286
African-American	-0.165	0.427	-0.023
Hispanic	0.129	0.535	0.018
High school graduate	-0.129	0.486	-0.018
Number of WIC members	0.010	0.926	0.001
Special diet	-0.160	0.329	-0.022
Food allergy	-0.436	0.069	-0.060
Resides in State with cheese restrictions	-0.420	0.013	-0.058

Connecticut and Oklahoma are defined as States with cheese restrictions.

Table J-8—Participant satisfaction with allowed brands of cheese, interactive model

Dependent variable: Very satisfied with allowed brands of cheese
Mean of dependent variable: 0.836
Number of observations 1,255
Percent concordant pairs 57.0

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.143	<.0001	0.294
African-American	-0.162	0.436	-0.022
Hispanic	0.119	0.568	0.016
High school graduate	-0.131	0.478	-0.018
Number of WIC members	0.010	0.924	0.001
Special diet	-0.267	0.214	-0.037
Food allergy	-0.492	0.118	-0.067
Resides in State with cheese restrictions	-0.549	0.015	-0.075
Special diet * restricted State	0.257	0.438	0.035
Food allergy * restricted State	0.134	0.779	0.018

Connecticut and Oklahoma are defined as States with cheese restrictions.

Table J-9—Purchase of prescribed cheese

Dependent variable:	All prescribed cheese purchased		
Mean of dependent variable:	0.954		
Number of observations	1,004		
Percent concordant pairs	70.0		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.562	<.0001	0.112
African-American	-0.252	0.440	-0.011
Hispanic	1.893	0.001	0.083
High school graduate	0.432	0.180	0.019
Number of WIC members	0.093	0.644	0.004
Special diet	-0.736	0.012	-0.032
Food allergy	0.242	0.628	0.011
Resides in State with cheese restrictions	-0.172	0.571	-0.008
Connecticut and Oklahoma are defined as States with cheese restrictions.			

Table J-10—Purchase of prescribed cheese, interactive model

Dependent variable:	All prescribed cheese purchased		
Mean of dependent variable:	0.954		
Number of observations	1,004		
Percent concordant pairs	70.5		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.548	<.0001	0.112
African-American	-0.262	0.426	-0.011
Hispanic	1.896	0.001	0.083
High school graduate	0.444	0.169	0.019
Number of WIC members	0.094	0.639	0.004
Special diet	-0.783	0.040	-0.034
Food allergy	0.670	0.378	0.029
Resides in State with cheese restrictions	-0.145	0.752	-0.006
Special diet * restricted State	0.101	0.866	0.004
Food allergy * restricted State	-0.864	0.389	-0.038
Connecticut and Oklahoma are defined as States with cheese restrictions.			

Table J-11—Consumption of purchased cheese

Dependent variable: All purchased cheese consumed
Mean of dependent variable: 0.788
Number of observations: 1,000
Percent concordant pairs: 63.6

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	1.180	<.0001	0.197
African-American	0.162	0.433	0.027
Hispanic	0.800	0.000	0.134
High school graduate	-0.494	0.010	-0.083
Number of WIC members	0.198	0.071	0.033
Special diet	-0.223	0.168	-0.037
Food allergy	0.377	0.192	0.063
Resides in State with cheese restrictions	-0.114	0.500	-0.019

Connecticut and Oklahoma are defined as States with cheese restrictions.

Table J-12—Consumption of purchased cheese, interactive model

Dependent variable: All purchased cheese consumed
Mean of dependent variable: 0.788
Number of observations: 1,000
Percent concordant pairs: 63.5

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	1.219	<.0001	0.204
African-American	0.164	0.426	0.027
Hispanic	0.796	0.000	0.133
High school graduate	-0.498	0.010	-0.083
Number of WIC members	0.196	0.073	0.033
Special diet	-0.261	0.204	-0.044
Food allergy	0.157	0.664	0.026
Resides in State with cheese restrictions	-0.206	0.357	-0.034
Special diet * restricted State	0.104	0.755	0.017
Food allergy * restricted State	0.554	0.350	0.093

Connecticut and Oklahoma are defined as States with cheese restrictions.

Table J-13—Purchase of prescribed eggs

Dependent variable:	All prescribed eggs purchased		
Mean of dependent variable:	0.955		
Number of observations	1,012		
Percent concordant pairs	62.1		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	3.109	<.0001	0.134
African-American	-0.085	0.816	-0.004
Hispanic	1.107	0.011	0.048
High school graduate	0.334	0.313	0.014
Number of WIC members	-0.247	0.164	-0.011
Special diet	-0.317	0.295	-0.014
Food allergy	-0.262	0.552	-0.011
Resides in State with egg restrictions	0.009	0.978	0.000
Connecticut and Oklahoma are defined as States with egg restrictions.			

Table J-14—Purchase of prescribed eggs, interactive model

Dependent variable:	All prescribed eggs purchased		
Mean of dependent variable:	0.955		
Number of observations	1,012		
Percent concordant pairs	62.6		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	3.082	<.0001	0.132
African-American	-0.095	0.796	-0.004
Hispanic	1.111	0.012	0.048
High school graduate	0.350	0.294	0.015
Number of WIC members	-0.243	0.173	-0.010
Special diet	-0.398	0.291	-0.017
Food allergy	0.181	0.778	0.008
Resides in State with egg restrictions	0.064	0.887	0.003
Special diet * restricted State	0.193	0.760	0.008
Food allergy * restricted State	-0.971	0.270	-0.042
Connecticut and Oklahoma are defined as States with egg restrictions.			

Table J-15—Consumption of purchased eggs

Dependent variable: All purchased eggs consumed
Mean of dependent variable: 0.790
Number of observations: 1,008
Percent concordant pairs: 67.9

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.817	0.003	0.135
African-American	0.192	0.332	0.032
Hispanic	1.555	<.0001	0.258
High school graduate	-0.294	0.126	-0.049
Number of WIC members	0.258	0.020	0.043
Special diet	-0.138	0.396	-0.023
Food allergy	-0.139	0.589	-0.023
Resides in State with egg restrictions	-0.245	0.141	-0.041

Connecticut and Oklahoma are defined as States with egg restrictions.

Table J-16—Consumption of purchased eggs, interactive model

Dependent variable: All purchased eggs consumed
Mean of dependent variable: 0.790
Number of observations: 1,008
Percent concordant pairs: 68.4

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.739	0.008	0.123
African-American	0.195	0.325	0.032
Hispanic	1.569	<.0001	0.260
High school graduate	-0.285	0.138	-0.047
Number of WIC members	0.262	0.019	0.043
Special diet	-0.036	0.866	-0.006
Food allergy	0.057	0.872	0.009
Resides in State with egg restrictions	-0.084	0.707	-0.014
Special diet * restricted State	-0.259	0.435	-0.043
Food allergy * restricted State	-0.438	0.396	-0.073

Connecticut and Oklahoma are defined as States with egg restrictions.

Table J-17—Participant satisfaction with allowed brands of infant cereal

Dependent variable:	Very satisfied with allowed brands of infant cereal		
Mean of dependent variable:	0.794		
Number of observations	378		
Percent concordant pairs	56.7		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	1.645	0.004	0.269
African-American	0.001	0.997	0.000
Hispanic	0.445	0.195	0.073
High school graduate	-0.035	0.906	-0.006
Number of WIC members	-0.049	0.805	-0.008
Special diet	-0.491	0.064	-0.080
Food allergy	-0.228	0.541	-0.037
Resides in State with infant cereal restrictions	-0.308	0.286	-0.050

California, Connecticut, and Texas are defined as States with infant cereal restrictions.

Table J-18—Participant satisfaction with allowed brands of infant cereal, interactive model

Dependent variable:	Very satisfied with allowed brands of infant cereal		
Mean of dependent variable:	0.794		
Number of observations	378		
Percent concordant pairs	56.6		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	1.789	0.003	0.293
African-American	-0.007	0.985	-0.001
Hispanic	0.468	0.175	0.077
High school graduate	-0.046	0.878	-0.007
Number of WIC members	-0.058	0.769	-0.009
Special diet	-0.698	0.068	-0.114
Food allergy	-0.306	0.553	-0.050
Resides in State with infant cereal restrictions	-0.521	0.169	-0.085
Special diet * restricted State	0.417	0.434	0.068
Food allergy * restricted State	0.205	0.780	0.034

California, Connecticut, and Texas are defined as States with infant cereal restrictions.

Table J-19—Purchase of prescribed infant cereal

Dependent variable: All prescribed infant cereal purchased
Mean of dependent variable: 0.897
Number of observations: 262
Percent concordant pairs: 64.3

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.633	0.008	0.243
African-American	0.309	0.652	0.029
Hispanic	-0.386	0.525	-0.036
High school graduate	-0.025	0.960	-0.002
Number of WIC members	-0.233	0.495	-0.022
Special diet	-0.007	0.987	-0.001
Food allergy	-0.697	0.206	-0.064
Resides in State with infant cereal restrictions	0.950	0.069	0.088

California, Connecticut, and Texas are defined as States with infant cereal restrictions.

Table J-20—Purchase of prescribed infant cereal, interactive model

Dependent variable: All prescribed infant cereal purchased
Mean of dependent variable: 0.897
Number of observations: 262
Percent concordant pairs: 64.2

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.485	0.014	0.230
African-American	0.322	0.639	0.030
Hispanic	-0.443	0.465	-0.041
High school graduate	-0.012	0.981	-0.001
Number of WIC members	-0.199	0.564	-0.018
Special diet	-0.048	0.937	-0.004
Food allergy	-0.348	0.640	-0.032
Resides in State with infant cereal restrictions	1.153	0.086	0.106
Special diet * restricted State	0.050	0.958	0.005
Food allergy * restricted State	-0.807	0.449	-0.075

California, Connecticut, and Texas are defined as States with infant cereal restrictions.

Table J-21—Consumption of purchased infant cereal

Dependent variable:	All purchased infant cereal consumed		
Mean of dependent variable:	0.658		
Number of observations	250		
Percent concordant pairs	62.9		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	-1.189	0.072	-0.268
African-American	0.459	0.233	0.103
Hispanic	0.394	0.293	0.089
High school graduate	0.003	0.993	0.001
Number of WIC members	0.369	0.111	0.083
Special diet	0.045	0.880	0.010
Food allergy	0.757	0.077	0.170
Resides in State with infant cereal restrictions	0.735	0.018	0.165
California, Connecticut, and Texas are defined as States with infant cereal restrictions.			

Table J-22—Consumption of purchased infant cereal, interactive model

Dependent variable:	All purchased infant cereal consumed		
Mean of dependent variable:	0.658		
Number of observations	250		
Percent concordant pairs	64.1		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	-1.091	0.108	-0.245
African-American	0.439	0.256	0.099
Hispanic	0.396	0.293	0.089
High school graduate	-0.015	0.963	-0.003
Number of WIC members	0.368	0.112	0.083
Special diet	-0.198	0.641	-0.045
Food allergy	0.867	0.134	0.195
Resides in State with infant cereal restrictions	0.597	0.120	0.134
Special diet * restricted State	0.478	0.425	0.107
Food allergy * restricted State	-0.201	0.810	-0.045
California, Connecticut, and Texas are defined as States with infant cereal restrictions.			

Table J-23—Participant satisfaction with allowed brands of juice

Dependent variable: Very satisfied with allowed brands of juice
Mean of dependent variable: 0.787
Number of observations 1,276
Percent concordant pairs 56.5

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.959	<.0001	0.161
African-American	-0.271	0.114	-0.045
Hispanic	0.492	0.008	0.083
High school graduate	0.329	0.031	0.055
Number of WIC members	0.073	0.424	0.012
Special diet	-0.013	0.929	-0.002
Food allergy	-0.066	0.769	-0.011
Resides in State with juice restrictions	-0.160	0.308	-0.027

California, Connecticut, Oklahoma, and Texas are defined as States with juice restrictions.

Table J-24—Participant satisfaction with allowed brands of juice, interactive model

Dependent variable: Very satisfied with allowed brands of juice
Mean of dependent variable: 0.787
Number of observations 1,276
Percent concordant pairs 56.9

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.947	0.000	0.159
African-American	-0.276	0.107	-0.046
Hispanic	0.481	0.010	0.081
High school graduate	0.333	0.029	0.056
Number of WIC members	0.074	0.421	0.012
Special diet	-0.067	0.772	-0.011
Food allergy	0.254	0.503	0.043
Resides in State with juice restrictions	-0.134	0.513	-0.023
Special diet * restricted State	0.082	0.782	0.014
Food allergy * restricted State	-0.507	0.279	-0.085

California, Connecticut, Oklahoma, and Texas are defined as States with juice restrictions.

Table J-25—Purchase of prescribed juice

Dependent variable:	All prescribed juice purchased		
Mean of dependent variable:	0.967		
Number of observations	1,069		
Percent concordant pairs	63.5		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	3.226	<.0001	0.103
African-American	0.537	0.215	0.017
Hispanic	0.420	0.333	0.013
High school graduate	-0.516	0.166	-0.016
Number of WIC members	-0.249	0.173	-0.008
Special diet	0.298	0.353	0.010
Food allergy	-0.184	0.692	-0.006
Resides in State with juice restrictions	0.604	0.070	0.019
California, Connecticut, Oklahoma, and Texas are defined as States with juice restrictions.			

Table J-26—Purchase of prescribed juice, interactive model

Dependent variable:	All prescribed juice purchased		
Mean of dependent variable:	0.967		
Number of observations	1,069		
Percent concordant pairs	63.2		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	3.217	<.0001	0.103
African-American	0.537	0.215	0.017
Hispanic	0.414	0.341	0.013
High school graduate	-0.515	0.167	-0.016
Number of WIC members	-0.248	0.174	-0.008
Special diet	0.295	0.503	0.009
Food allergy	-0.117	0.858	-0.004
Resides in State with juice restrictions	0.621	0.136	0.020
Special diet * restricted State	0.004	0.995	0.000
Food allergy * restricted State	-0.137	0.882	-0.004
California, Connecticut, Oklahoma, and Texas are defined as States with juice restrictions.			

Table J-27—Consumption of purchased juice

Dependent variable: All purchased juice consumed
Mean of dependent variable: 0.851
Number of observations 1,062
Percent concordant pairs 59.4

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	1.753	<.0001	0.222
African-American	0.381	0.093	0.048
Hispanic	0.804	0.001	0.102
High school graduate	-0.392	0.057	-0.050
Number of WIC members	-0.002	0.985	0.000
Special diet	-0.178	0.309	-0.023
Food allergy	-0.079	0.773	-0.010
Resides in State with juice restrictions	-0.043	0.819	-0.005

California, Connecticut, Oklahoma, and Texas are defined as States with juice restrictions.

Table J-28—Consumption of purchased juice, interactive model

Dependent variable: All purchased juice consumed
Mean of dependent variable: 0.851
Number of observations 1,062
Percent concordant pairs 60.2

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	1.796	<.0001	0.228
African-American	0.379	0.095	0.048
Hispanic	0.807	0.001	0.102
High school graduate	-0.396	0.055	-0.050
Number of WIC members	-0.002	0.989	0.000
Special diet	-0.277	0.311	-0.035
Food allergy	-0.031	0.942	-0.004
Resides in State with juice restrictions	-0.109	0.668	-0.014
Special diet * restricted State	0.168	0.637	0.021
Food allergy * restricted State	-0.080	0.884	-0.010

California, Connecticut, Oklahoma, and Texas are defined as States with juice restrictions.

Table J-29—Purchase of prescribed peanut butter

Dependent variable:	All prescribed peanut butter purchased		
Mean of dependent variable:	0.927		
Number of observations	741		
Percent concordant pairs	65.4		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.750	<.0001	0.186
African-American	-0.805	0.024	-0.055
Hispanic	-0.395	0.274	-0.027
High school graduate	0.345	0.260	0.023
Number of WIC members	-0.184	0.287	-0.012
Special diet	0.246	0.421	0.017
Food allergy	-0.440	0.323	-0.030
Resides in State with peanut butter restrictions	1.116	0.036	0.076

Connecticut is defined as State with peanut butter restrictions.

Table J-30—Purchase of prescribed peanut butter, interactive model

Dependent variable:	All prescribed peanut butter purchased		
Mean of dependent variable:	0.927		
Number of observations	741		
Percent concordant pairs	65.5		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.723	<.0001	0.184
African-American	-0.796	0.026	-0.054
Hispanic	-0.389	0.283	-0.026
High school graduate	0.351	0.252	0.024
Number of WIC members	-0.184	0.289	-0.012
Special diet	0.296	0.359	0.020
Food allergy	-0.427	0.372	-0.029
Resides in State with peanut butter restrictions	1.418	0.078	0.096
Special diet * restricted State	-0.602	0.574	-0.041
Food allergy * restricted State	-0.203	0.874	-0.014

Connecticut is defined as State with peanut butter restrictions.

Table J-31—Consumption of purchased peanut butter

Dependent variable:	All purchased peanut butter consumed
Mean of dependent variable:	0.616
Number of observations	686
Percent concordant pairs	58.0

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.483	0.065	0.114
African-American	-0.408	0.049	-0.097
Hispanic	0.013	0.950	0.003
High school graduate	-0.060	0.742	-0.014
Number of WIC members	0.148	0.159	0.035
Special diet	-0.375	0.022	-0.089
Food allergy	0.212	0.430	0.050
Resides in State with peanut butter restrictions	-0.045	0.823	-0.011

Connecticut is defined as State with peanut butter restrictions.

Table J-32—Consumption of purchased peanut butter, interactive model

Dependent variable:	All purchased peanut butter consumed
Mean of dependent variable:	0.616
Number of observations	686
Percent concordant pairs	57.9

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.547	0.040	0.129
African-American	-0.423	0.043	-0.100
Hispanic	0.002	0.991	0.001
High school graduate	-0.075	0.683	-0.018
Number of WIC members	0.145	0.168	0.034
Special diet	-0.451	0.014	-0.107
Food allergy	0.072	0.820	0.017
Resides in State with peanut butter restrictions	-0.298	0.272	-0.070
Special diet * restricted State	0.424	0.293	0.100
Food allergy * restricted State	0.553	0.358	0.131

Connecticut is defined as State with peanut butter restrictions.

Table J-33—Purchase of prescribed beans

Dependent variable:	All prescribed beans purchased		
Mean of dependent variable:	0.869		
Number of observations	548		
Percent concordant pairs	73.5		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.027	0.946	0.003
African-American	0.251	0.379	0.029
Hispanic	2.094	<.0001	0.238
High school graduate	0.103	0.699	0.012
Number of WIC members	0.319	0.048	0.036
Special diet	0.354	0.159	0.040
Food allergy	-0.354	0.362	-0.040
Resides in State with bean restrictions	0.787	0.029	0.090
Oklahoma is defined as State with bean restrictions.			

Table J-34—Purchase of prescribed beans, interactive model

Dependent variable:	All prescribed beans purchased		
Mean of dependent variable:	0.869		
Number of observations	548		
Percent concordant pairs	74.1		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	-0.032	0.935	-0.004
African-American	0.237	0.409	0.027
Hispanic	2.125	<.0001	0.242
High school graduate	0.103	0.699	0.012
Number of WIC members	0.313	0.054	0.036
Special diet	0.483	0.075	0.055
Food allergy	-0.233	0.577	-0.027
Resides in State with bean restrictions	1.195	0.014	0.136
Special diet * restricted State	-0.834	0.273	-0.095
Food allergy * restricted State	-0.592	0.594	-0.067
Oklahoma is defined as State with bean restrictions.			

Table J-35—Consumption of purchased beans

Dependent variable: All purchased beans consumed
Mean of dependent variable: 0.696
Number of observations: 453
Percent concordant pairs: 76.5

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.428	0.275	0.091
African-American	0.408	0.181	0.086
Hispanic	1.808	<.0001	0.383
High school graduate	-0.688	0.008	-0.146
Number of WIC members	0.172	0.235	0.036
Special diet	-0.267	0.265	-0.056
Food allergy	-0.175	0.667	-0.037
Resides in State with bean restrictions	-0.367	0.226	-0.078

Oklahoma is defined as State with bean restrictions.

Table J-36—Consumption of purchased beans, interactive model

Dependent variable: All purchased beans consumed
Mean of dependent variable: 0.696
Number of observations: 453
Percent concordant pairs: 76.2

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.457	0.249	0.097
African-American	0.418	0.172	0.088
Hispanic	1.783	<.0001	0.377
High school graduate	-0.695	0.008	-0.147
Number of WIC members	0.179	0.219	0.038
Special diet	-0.352	0.190	-0.075
Food allergy	-0.081	0.852	-0.017
Resides in State with bean restrictions	-0.507	0.191	-0.107
Special diet * restricted State	0.491	0.425	0.104
Food allergy * restricted State	-0.969	0.462	-0.205

Oklahoma is defined as State with bean restrictions.

Table J-37—Participant satisfaction with allowed brands of cereal, model 1

Dependent variable:	Very satisfied with allowed brands of cereal		
Mean of dependent variable:	0.529		
Number of observations	1,271		
Percent concordant pairs	61.8		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	-0.210	0.281	-0.052
African-American	0.011	0.944	0.003
Hispanic	1.108	<.0001	0.276
High school graduate	0.077	0.556	0.019
Number of WIC members	0.004	0.958	0.001
Special diet	-0.070	0.562	-0.017
Food allergy	-0.260	0.182	-0.065
Resides in State with cereal restrictions	-0.195	0.132	-0.049
California and Oklahoma are defined as States with cereal restrictions.			

Table J-38—Participant satisfaction with allowed brands of cereal, interactive model 1

Dependent variable:	Very satisfied with allowed brands of cereal		
Mean of dependent variable:	0.529		
Number of observations	1,271		
Percent concordant pairs	61.5		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	-0.230	0.243	-0.057
African-American	0.003	0.982	0.001
Hispanic	1.107	<.0001	0.276
High school graduate	0.080	0.542	0.020
Number of WIC members	0.003	0.967	0.001
Special diet	-0.017	0.907	-0.004
Food allergy	-0.251	0.266	-0.063
Resides in State with cereal restrictions	-0.129	0.428	-0.032
Special diet * restricted State	-0.172	0.510	-0.043
Food allergy * restricted State	-0.038	0.931	-0.010
California and Oklahoma are defined as States with cereal restrictions.			

Table J-39—Participant satisfaction with allowed brands of cereal, model 2

Dependent variable: Very satisfied with allowed brands of cereal
Mean of dependent variable: 0.529
Number of observations 1,271
Percent concordant pairs 62.9

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	-0.131	0.503	-0.033
African-American	-0.059	0.701	-0.015
Hispanic	0.979	<.0001	0.244
High school graduate	0.092	0.487	0.023
Number of WIC members	0.005	0.947	0.001
Special diet	-0.053	0.664	-0.013
Food allergy	-0.307	0.118	-0.076
Resides in State with cereal restrictions	-0.615	0.000	-0.153

Oklahoma is defined as State with cereal restrictions.

Table J-40—Participant satisfaction with allowed brands of cereal, interactive model 2

Dependent variable: Very satisfied with allowed brands of cereal
Mean of dependent variable: 0.529
Number of observations 1,271
Percent concordant pairs 62.4

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	-0.140	0.478	-0.035
African-American	-0.066	0.668	-0.016
Hispanic	0.977	<.0001	0.243
High school graduate	0.089	0.499	0.022
Number of WIC members	0.004	0.958	0.001
Special diet	-0.041	0.757	-0.010
Food allergy	-0.215	0.298	-0.054
Resides in State with cereal restrictions	-0.539	0.012	-0.134
Special diet * restricted State	-0.033	0.921	-0.008
Food allergy * restricted State	-1.070	0.184	-0.267

Oklahoma is defined as State with cereal restrictions.

Table J-41—Purchase of prescribed cereal, model 1

Dependent variable:	All prescribed cereal purchased		
Mean of dependent variable:	0.916		
Number of observations	1,041		
Percent concordant pairs	64.5		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.498	<.0001	0.192
African-American	0.325	0.268	0.025
Hispanic	1.336	<.0001	0.103
High school graduate	-0.104	0.689	-0.008
Number of WIC members	-0.237	0.076	-0.018
Special diet	0.131	0.567	0.010
Food allergy	-0.445	0.160	-0.034
Resides in State with cereal restrictions	-0.319	0.194	-0.025
California and Oklahoma are defined as States with cereal restrictions.			

Table J-42—Purchase of prescribed cereal, interactive model 1

Dependent variable:	All prescribed cereal purchased		
Mean of dependent variable:	0.916		
Number of observations	1,041		
Percent concordant pairs	64.8		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.530	<.0001	0.195
African-American	0.338	0.250	0.026
Hispanic	1.346	<.0001	0.104
High school graduate	-0.103	0.693	-0.008
Number of WIC members	-0.236	0.079	-0.018
Special diet	0.002	0.994	0.000
Food allergy	-0.357	0.329	-0.027
Resides in State with cereal restrictions	-0.434	0.157	-0.033
Special diet * restricted State	0.469	0.363	0.036
Food allergy * restricted State	-0.405	0.574	-0.031
California and Oklahoma are defined as States with cereal restrictions.			

Table J-43—Purchase of prescribed cereal, model 2

Dependent variable: All prescribed cereal purchased
Mean of dependent variable: 0.916
Number of observations 1,041
Percent concordant pairs 64.5

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.509	<.0001	0.193
African-American	0.304	0.302	0.023
Hispanic	1.195	0.000	0.092
High school graduate	-0.102	0.696	-0.008
Number of WIC members	-0.235	0.079	-0.018
Special diet	0.136	0.551	0.010
Food allergy	-0.458	0.150	-0.035
Resides in State with cereal restrictions	-0.412	0.128	-0.032

Oklahoma is defined as State with cereal restrictions.

Table J-44—Purchase of prescribed cereal, interactive model 2

Dependent variable: All prescribed cereal purchased
Mean of dependent variable: 0.916
Number of observations 1,041
Percent concordant pairs 65.4

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	2.548	<.0001	0.196
African-American	0.321	0.278	0.025
Hispanic	1.177	0.000	0.091
High school graduate	-0.096	0.713	-0.007
Number of WIC members	-0.229	0.089	-0.018
Special diet	-0.029	0.909	-0.002
Food allergy	-0.390	0.265	-0.030
Resides in State with cereal restrictions	-0.642	0.055	-0.049
Special diet * restricted State	0.850	0.158	0.065
Food allergy * restricted State	-0.563	0.504	-0.043

Oklahoma is defined as State with cereal restrictions.

Table J-45—Consumption of purchased cereal, model 1

Dependent variable:	All purchased cereal consumed		
Mean of dependent variable:	0.724		
Number of observations	1,021		
Percent concordant pairs	62.7		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.822	0.001	0.164
African-American	0.258	0.166	0.051
Hispanic	1.049	<.0001	0.210
High school graduate	-0.225	0.170	-0.045
Number of WIC members	0.011	0.903	0.002
Special diet	-0.207	0.155	-0.041
Food allergy	-0.089	0.708	-0.018
Resides in State with cereal restrictions	-0.173	0.289	-0.035
California and Oklahoma are defined as States with cereal restrictions.			

Table J-46—Consumption of purchased cereal, interactive model 1

Dependent variable:	All purchased cereal consumed		
Mean of dependent variable:	0.724		
Number of observations	1,021		
Percent concordant pairs	63.5		
Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.867	0.000	0.173
African-American	0.288	0.124	0.058
Hispanic	1.073	<.0001	0.214
High school graduate	-0.224	0.175	-0.045
Number of WIC members	0.021	0.822	0.004
Special diet	-0.428	0.013	-0.085
Food allergy	0.100	0.712	0.020
Resides in State with cereal restrictions	-0.406	0.046	-0.081
Special diet * restricted State	0.848	0.012	0.169
Food allergy * restricted State	-0.969	0.087	-0.194
California and Oklahoma are defined as States with cereal restrictions.			

Table J-47—Consumption of purchased cereal, model 2

Dependent variable: All purchased cereal consumed
Mean of dependent variable: 0.724
Number of observations 1,021
Percent concordant pairs 62.3

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.822	0.000	0.164
African-American	0.249	0.183	0.050
Hispanic	0.976	<.0001	0.195
High school graduate	-0.224	0.172	-0.045
Number of WIC members	0.014	0.880	0.003
Special diet	-0.202	0.164	-0.040
Food allergy	-0.098	0.680	-0.020
Resides in State with cereal restrictions	-0.215	0.264	-0.043

Oklahoma is defined as State with cereal restrictions.

Table J-48—Consumption of purchased cereal, interactive model 2

Dependent variable: All purchased cereal consumed
Mean of dependent variable: 0.724
Number of observations 1,021
Percent concordant pairs 63.0

Parameter	Estimated coefficient	P-value	Effect at mean
Intercept	0.841	0.000	0.168
African-American	0.260	0.165	0.052
Hispanic	0.965	<.0001	0.193
High school graduate	-0.217	0.186	-0.043
Number of WIC members	0.023	0.808	0.005
Special diet	-0.311	0.052	-0.062
Food allergy	-0.032	0.900	-0.006
Resides in State with cereal restrictions	-0.437	0.077	-0.087
Special diet * restricted State	0.681	0.087	0.136
Food allergy * restricted State	-0.738	0.330	-0.147

Oklahoma is defined as State with cereal restrictions.