

# **Do Pharmacists Buy Bayer?**

## **Informed Shoppers and the Brand Premium**

Bart J. Bronnenberg,<sup>\*</sup> *CentER and Tilburg*  
Jean-Pierre Dubé, *Chicago Booth and NBER*  
Matthew Gentzkow, *Chicago Booth and NBER*  
Jesse M. Shapiro, *Brown University and NBER*

January 2015

## **Online Appendix**

### **List of Tables<sup>†</sup>**

2.1.1	Comparison of store-brand share between Homescan data and store-level data . . . . .	3
2.2.1	Demographics of panelists, survey respondents vs. non-respondents . . . . .	4
2.2.2	List of healthcare occupations . . . . .	5
2.2.3	List of food preparer occupations . . . . .	6
2.3.1	List of comparables, regression sample . . . . .	7
4.1.1	Occupation and knowledge of headache remedy active ingredients . . . . .	14
4.1.2	Demographic characteristics of employed vs. not currently employed experts . . . . .	15
4.1.3	Occupational knowledge scores and headache remedy purchases . . . . .	16
4.1.4	Occupation and headache remedy purchases by well-informed consumers . . . . .	17
4.1.5	Occupation and headache remedy purchases, primary vs. secondary shopper . . . . .	18
4.1.6	Occupation and purchase behavior, headache remedies by comparable . . . . .	19
4.2.1	Knowledge and pantry staple purchases . . . . .	20
4.2.2	Occupation and knowledge of pantry staple ingredients . . . . .	21
4.2.3	Occupation and pantry staple purchases, primary vs. secondary shopper . . . . .	22

---

\*E-mail addresses: bart.bronnenberg@tilburguniversity.edu, jdube@chicagobooth.edu, matthew.gentzkow@chicagobooth.edu, jesse\_shapiro\_1@brown.edu.

<sup>†</sup>The numbering of tables and figures corresponds to subsections in the paper.

4.2.4	Occupational knowledge scores and pantry staple purchases . . . . .	23
5.1.1	Standard errors by bootstrap size, pharmacist / physician coefficients . . . . .	24
5.1.2	<i>Consumer Reports</i> designation and the effects of knowledge . . . . .	25
5.1.3	Advertising intensity and the effects of knowledge . . . . .	26
5.1.4	Store-brand purchase shares by occupation, health products . . . . .	27
5.2.1	Standard errors by bootstrap size, chef coefficients . . . . .	30
5.2.2	Store-brand purchase shares by occupation, food and drink products . . . . .	31
6.2.1	Data moments: prices and cost by comparable . . . . .	34
6.2.2	Estimated model parameters by comparable . . . . .	41
6.2.3	Exceptional cases in estimation . . . . .	52
6.3.1	Health categories purchases under $\lambda = 0$ . . . . .	53
6.3.2	Food and drink purchases under $\lambda = 0$ . . . . .	54
6.3.3	Health categories purchases under full information, medications vs. other health products . . .	55

## List of Figures

4.1.1	Store-brand purchases and household income, headache remedies and pantry staples . . . . .	56
4.1.2	Average annual purchase volume and occupation, headache remedies . . . . .	57
4.1.3	Item size and occupation, headache remedies . . . . .	58
4.1.4	Effect of surveys on store-brand purchases, headache remedies . . . . .	59
5.1.1	College education coefficients, health products . . . . .	60
5.1.2	Other healthcare occupation coefficients, health products . . . . .	61
5.1.3	Price ratio and the effects of knowledge, health products . . . . .	62
5.1.4	Pharmacist / physician coefficients, health vs. non-health products . . . . .	63
5.1.5	Other healthcare occupation coefficients, health vs. non-health products . . . . .	64
5.2.1	College education coefficients, food products . . . . .	65
5.2.2	Other food preparer occupation coefficients, food products . . . . .	66
5.2.3	Price ratio and the effects of knowledge, food products . . . . .	67
6.3.1	Change in total surplus and gap between national- and store-brand prices, headache remedies .	68

Online Appendix Table 2.1.1: Comparison of store-brand share between Homescan data and store-level data

	Homescan		Homescan		Store-level data		Store-level data	
	Regression sample		Matched to store-level data		Matched to Homescan sample		All	
	Store-brand share (volume)	Store-brand share (\$)						
<b>Headache remedies</b>								
Acetaminophen gelcaps	0.51	0.38	0.43	0.31	0.26	0.17	0.28	0.18
Ibuprofen gelcaps	0.29	0.22	0.37	0.29	0.33	0.25	0.27	0.20
Acetaminophen tablets	0.81	0.60	0.70	0.45	0.53	0.29	0.52	0.28
Aspirin tablets	0.75	0.40	0.79	0.46	0.71	0.36	0.69	0.33
Ibuprofen tablets	0.81	0.61	0.74	0.50	0.67	0.41	0.62	0.36
Naproxen sodium tablets	0.57	0.44	0.50	0.38	0.41	0.30	0.37	0.26

Notes: Store-brand share (volume) is the share of equivalent quantity units in each comparable devoted to store brands in a given sample of data. Store-brand share (\$) is the share of expenditure devoted to store brands in a given sample of data. The expenditure is calculated using the average price per equivalent quantity unit observed in the 2008 Nielsen Retail Measurement Services (RMS) data for store brands and national brands. The columns labeled “Homescan: regression sample” reproduce calculations from the first two columns in table 1 of the paper. The columns labeled “Homescan: matched to store-level data” reproduce the calculations from the first two columns, restricting attention to store-weeks that are present in our store-level data. The columns labeled “Store-level data: matched to Homescan sample” contain the average store-brand share of volume and expenditure in store-weeks that are present in the Homescan sample, weighting store-weeks by the frequency of occurrence in the Homescan sample. The columns labeled “Store-level data: all” contain the average store-brand share of volume and expenditure in all store-weeks in our store-level data.

Online Appendix Table 2.2.1: Demographics of panelists, survey respondents vs. non-respondents

Variable	Responded to PanelViews	
	No	Yes
Number of household members		
1	0.2629	0.2376
2	0.3749	0.4311
3	0.1463	0.1425
4	0.1283	0.1168
5	0.0547	0.0454
6 +	0.0330	0.0267
	[p-value=0.0000]	
Household income		
< \$30,000	0.2594	0.2121
\$30,000 – \$69,999	0.4270	0.4396
> \$70,000	0.3136	0.3482
	[p-value=0.0000]	
Head age		
< 35	0.0699	0.0721
35 – 49	0.2963	0.2976
50 – 64	0.3729	0.4441
≥ 65	0.2610	0.1862
	[p-value=0.0000]	
Head education		
Less than HS	0.0352	0.0208
HS graduate	0.2572	0.2305
Some college	0.3185	0.3141
BA+	0.3891	0.4345
	[p-value=0.0000]	
Race		
White	0.7839	0.8239
Hispanic	0.0615	0.0492
Black	0.1077	0.0809
Asian	0.0251	0.0252
Other	0.0218	0.0208
	[p-value=0.0000]	
Kids under 18?		
	0.2534	0.2333
	[p-value=0.0000]	
Male head labor supply		
< 30 hours	0.0495	0.0595
30 – 34 hours	0.0320	0.0314
≥ 35 hours	0.6049	0.5906
Not employed	0.3136	0.3185
	[p-value=0.0000]	
Female head labor supply		
< 30 hours	0.1232	0.1356
30 – 34 hours	0.0527	0.0504
≥ 35 hours	0.3853	0.3904
Not employed	0.4388	0.4236
	[p-value=0.0000]	
Male household head		
	0.7324	0.7629
	[p-value=0.0000]	
Female household head		
	0.9067	0.9091
	[p-value=0.2575]	
Number of households		
	29205	58813

Notes: Table shows the demographic characteristics of Nielsen Homescan Panel households following table 1 in Harding et al. (2012). The first column shows results for households present in the panel in 2008 or 2011 in which no adult responded to our PanelViews survey. The second column shows results for households present in the panel in 2008 or 2011 in which an adult responded to our PanelViews survey. The p-values reported are from a  $\chi^2$  test of the null hypothesis that the distribution of the given set of indicators is identical between households that did and did not respond to the survey. “Head age” and “Head education” refer to female household head if a female household head is present. In the cases in which no female household head is present, these variables refer to the male household head. “Male head labor supply” and “Female head labor supply” are conditioned on nonmissing male and female household head, respectively.

Online Appendix Table 2.2.2: List of healthcare occupations

Occupation	Number of households
Registered nurses	1296
Other healthcare practitioners and technical occupations	452
Licensed practical and licensed vocational nurses	311
Miscellaneous health technologists and technicians	217
Pharmacists	151
Clinical laboratory technologists and technicians	122
Physicians and surgeons	111
Medical records and health information technicians	109
Health diagnosing and treating practitioners, all other	103
Dental hygienists	91
Therapists, all other	87
Physical therapists	84
Diagnostic related technologists and technicians	72
Veterinarians	64
Respiratory therapists	61
Dietitians and nutritionists	59
Health diagnosing and treating practitioner support technicians	58
Emergency medical technicians and paramedics	55
Occupational therapists	49
Physician assistants	45
Dentists	31
Opticians, dispensing	23
Optometrists	18
Speech-language pathologists	17
Audiologists	15
Radiation therapists	15
Chiropractors	14
Other	14
All	3744

Notes: Table lists the occupations we define as “healthcare” and reports the number of panelist households whose primary shopper is in a given occupation. Occupations with fewer than 10 households are grouped in “Other.”

Online Appendix Table 2.2.3: List of food preparer occupations

Occupation	Number of households
Food preparation and serving related workers, all other	198
Combined food preparation and serving workers, including fast food	188
First-line supervisors/managers of food preparation and serving workers	187
Food service managers	173
Cooks	159
Chefs and head cooks	137
Food preparation workers	133
Bartenders	80
Food cooking machine operators and tenders	20
Other	14
Food batchmakers	13
All	1302

Notes: Table lists the occupations we define as “food preparer” and reports the number of panelist households whose primary shopper is in a given occupation. Occupations with fewer than 10 households are grouped in “Other.”

Online Appendix Table 2.3.1: List of comparables, regression sample

---

Headache remedies

Pain remedies - Headache - Gelcap/geltab/softgel - Extra strength  
Pain remedies - Headache - Gelcap/geltab/softgel - Regular strength  
Pain remedies - Headache - Tablet - Extra strength - Acetaminophen  
Pain remedies - Headache - Tablet - Regular strength - Aspirin  
Pain remedies - Headache - Tablet - Regular strength - Ibuprofen  
Pain remedies - Headache - Tablet - Regular strength - Naproxen sodium

Other health categories

Adhesive bandages - Fabric  
Adhesive bandages - Flexible fabric  
Adhesive bandages - Plastic  
Adhesive bandages - Sheer  
Adult-incontinence  
Adult-incontinence - Large  
Adult-incontinence - Small-medium  
Antacids - Liquid - Bismuth  
Antacids - Tablets - M-s famotidine  
Antacids - Tablets - M-s ranitidine  
Antacids - Tablets - Omeprazole  
Antacids - Tablets - Ranitidine  
Anti-gas products - Gelcap/geltab/softgel  
Cold remedies - Adult - Other - Tablets - Allergy astm 24hr ops nd  
Contact lens solution  
Contact lens solution - Sensitive eyes  
Cotton - Swabs/balls/rolls/aplctrs etc. - Cotton balls  
Cotton - Swabs/balls/rolls/aplctrs etc. - Cotton rounds  
Cotton - Swabs/balls/rolls/aplctrs etc. - Cotton swabs  
Dairy digestive aids  
Diarrhea remedies  
Eye care - Remaining  
Eye drops & lotions  
First aid - Gauze pads  
First aid - Hydrocortisones  
Germicidal antiseptics - Alcohol  
Germicidal antiseptics - Hydrogen peroxide  
Laxatives - Caplet  
Laxatives - Salts  
Laxatives - Tablet  
Minerals - Caplet  
Minerals - Tablet - Calcium - Calcium/d  
Minerals - Tablet - Other - Iron  
Nasal product internal - Decongestant  
Pain remedies - Alkalizing effervescents  
Pain remedies - Arthritis  
Pain remedies - Headache - Tablet - Extra strength - Acetaminophen pm  
Pain remedies - Headache - Tablet - Low dose strength

Pain remedies - Headache - Tablet - Regular strength - Migraine acm/aspirin/caffeine  
Rectal medication - Ointment  
Rectal medication - Suppository  
Sleeping aids - Mini caplet  
Sleeping aids - Tablet  
Vitamins-multiple - Multi/min

Pantry staples

Baking soda  
Salt - Table - Iodized  
Salt - Table - Plain  
Sugar - Brown  
Sugar-granulated  
Sugar-powdered

Other food and drink categories

Bakery - Bread - Fresh - Other  
Bakery - Bread - Fresh - Wheat  
Bakery - Bread - Fresh - White  
Bakery - Remaining - Frozen  
Bakery - Remaining - Frozen - Deep dish  
Bakery-bread-frozen  
Bakery-buns-fresh - Hamburger  
Bakery-buns-fresh - Hot dog  
Bakery-muffins-fresh  
Bouillon  
Breading products  
Candy-non-chocolate - Bear  
Candy-non-chocolate - Piece - Candy corn  
Candy-non-chocolate - Piece - Starlight mint  
Candy-non-chocolate - Slice  
Canned fruit - Apple sauce  
Canned fruit - Oranges  
Catsup  
Cereal - Hot - Apple & cinnamon  
Cereal - Hot - Maple & brown sugar  
Cereal - Hot - Old fashioned  
Cereal - Hot - Quick  
Cereal - Hot - Variety  
Cheese - Cottage  
Cheese - Grated  
Cheese - Natural - American cheddar - Extra sharp  
Cheese - Natural - American cheddar - Medium  
Cheese - Natural - American cheddar - Mild  
Cheese - Natural - American cheddar - Sharp  
Cheese - Natural - American colby  
Cheese - Natural - Mozzarella - Chunk  
Cheese - Natural - Mozzarella - Sliced  
Cheese - Natural - Remaining  
Cheese - Processed - Cream cheese

Cheese - Processed - Cream cheese - Soft  
Cheese - Shredded - Mild  
Cheese - Shredded - Non sharp  
Cheese - Shredded - Other  
Cheese - Shredded - Sharp  
Cheese - Specialty/imported  
Cheese-natural-swiss - Chunk  
Cheese-natural-swiss - Sliced  
Cheese-processed slices-american  
Chili sauce  
Chili-shelf stable  
Cookies - Chocolate  
Cookies - Chocolate chip  
Cookies - Peanut butter  
Cookies - Sugar  
Cookies - Vanilla  
Cooking sauce  
Cooking sprays - Canola oil  
Cooking sprays - Olive oil  
Cranberries - Shelf stable - Jellied  
Cranberries - Shelf stable - Whole  
Dairy - Dip - Refrigerated & frozen  
Dairy - Sour cream - Refrigerated & canned  
Dairy-cream-refrigerated  
Dairy-milk-refrigerated - Carton - 1% lowfat vitamin a/d  
Dairy-milk-refrigerated - Carton - 2% rd fat vitamin a/d  
Dairy-milk-refrigerated - Carton - Whole vitamin d  
Dairy-milk-refrigerated - Plastic - 1% lowfat vitamin a/d  
Dairy-milk-refrigerated - Plastic - 2% rd fat vitamin a/d  
Dairy-milk-refrigerated - Plastic - Skim vitamin a/d  
Dairy-milk-refrigerated - Plastic - Whole vitamin d  
Dough products - Cookies & brownies - Refrigerated  
Dough products-dinner rolls-refrigerated  
Dough products-remaining-refrigerated  
Dough products-sweet rolls-refrigerated  
Dry dinners - Pasta  
Eggs-fresh - Extra large  
Eggs-fresh - Jumbo  
Eggs-fresh - Large - Brown eggs  
Eggs-fresh - Large - White eggs  
Extracts - Imitation  
Extracts - Pure  
Fish & seafood & cocktail sauce  
Frozen novelties - Assorted  
Frozen novelties - Van/choc - Bar  
Frozen novelties - Van/choc - Sandwich  
Frozen waffles & pancakes & french toast  
Frozen waffles & pancakes & french toast - Blueberry  
Frozen waffles & pancakes & french toast - Buttermilk  
Frozen/refrigerated breakfasts

Fruit drinks & juices-cranberry - Cranberry jc ckl  
Fruit drinks & mixes - Frozen - Lemonade  
Fruit juice - Orange - Other container  
Fruit-dried and snacks  
Gelatin - Diet - Mix  
Gelatin-sweetened-mix - Cherry  
Gelatin-sweetened-mix - Lime  
Gelatin-sweetened-mix - Orange  
Gelatin-sweetened-mix - Strawberry  
Gravy mixes - Packaged - Brown  
Gravy mixes - Packaged - Turkey  
Ice cream cones & cups - Cake  
Ice cream cones & cups - Sugar  
Jelly  
Margarine and spreads  
Marmalade  
Marshmallows  
Marshmallows - Miniature  
Mayonnaise - Jar  
Mayonnaise - Squeeze  
Meat sauce  
Mexican-refried beans  
Milk - Canned  
Milk - Powdered  
Mixes - Pancake  
Mixes - Pancake - Btm  
Mushrooms - Shelf stable  
Mustard - Spicy brown  
Mustard - Yellow  
Nuts - Bags  
Olive oil - Extra virgin  
Olive oil - Pure  
Olives - Black - Sliced  
Olives - Black - Whole  
Olives - Green  
Olives - Green - Manzanilla  
Peanut butter - Chunky  
Peanut butter - Creamy  
Pepper  
Pickles - Dill - Baby whole  
Pickles - Dill - Chip  
Pickles - Dill - Spear  
Pickles - Dill - Whole  
Pickles - Sweet - Chip  
Pickles - Sweet - Whole  
Pizza-frozen  
Popcorn - Unpopped  
Popcorn - Unpopped - Butter  
Preserves - Apricot  
Preserves - Peach

Preserves - Red raspberry  
Preserves - Strawberry  
Pudding - Sweetened - Mix - Chocolate  
Pudding - Sweetened - Mix - Vanilla  
Raisins - Box  
Raisins - Canister  
Ravioli - Canned  
Relishes - Pickle relish  
Relishes - Relish  
Rice - Instant  
Rice - Packaged and bulk - Brown rice  
Rice - Packaged and bulk - White rice  
Salad and cooking oil - Canola  
Salad and cooking oil - Corn  
Salad and cooking oil - Vegetable  
Salad dressing - Miracle whip type  
Salt - Cooking/edible/seasoned - Garlic  
Salt - Cooking/edible/seasoned - Seasoned  
Sauce mix - Taco  
Seafood-tuna-shelf stable - Chunk light  
Seafood-tuna-shelf stable - Solid white  
Seasoning mix - Chili  
Seasoning-dry - Chili powder  
Seasoning-dry - Cinnamon  
Seasoning-dry - Garlic powder  
Seasoning-dry - Onion powder  
Seasoning-dry - Parsley flakes  
Soft drinks - Carbonated - Cola - Bottle  
Soft drinks - Carbonated - Cola - Can  
Soft drinks - Carbonated - Ginger ale  
Soft drinks - Carbonated - Grape - Bottle  
Soft drinks - Carbonated - Grape - Can  
Soft drinks - Carbonated - Lemon/lime - Bottle  
Soft drinks - Carbonated - Lemon/lime - Can  
Soft drinks - Carbonated - Orange - Bottle  
Soft drinks - Carbonated - Orange - Can  
Soft drinks - Carbonated - Plain - Club soda  
Soft drinks - Carbonated - Plain - Tonic  
Soft drinks - Carbonated - Root beer - Bottle  
Soft drinks - Carbonated - Root beer - Can  
Soft drinks - Low calorie - Bottle  
Soft drinks - Low calorie - Can  
Soup-canned - Chicken broth  
Soup-canned - Chicken noodle  
Soup-canned - Cream of celery  
Soup-canned - Cream of chicken  
Soup-canned - Cream of mushroom  
Soup-canned - Tomato  
Soup-canned - Vg beef  
Stuffing products

Syrup - Table - Butter  
Syrup - Table - Maple  
Syrup-chocolate  
Tea - Bags - Green  
Tea - Bags - Orange pekoe black  
Toaster pastries  
Tomato paste  
Tomato sauce  
Tomatoes - Remaining - Canned - Crushed  
Tomatoes - Remaining - Canned - Diced  
Tomatoes-stewed  
Tomatoes-whole-canned  
Toppings - Refrigerated  
Toppings-whipped-frozen  
Vegetable juice and drink remaining  
Vegetables - Broccoli - Frozen - Cut  
Vegetables - Broccoli - Frozen - Floret  
Vegetables - Corn - Frozen  
Vegetables - Lima beans - Frozen  
Vegetables - Mixed - Frozen - California  
Vegetables - Mixed - Frozen - Mixed vegetable  
Vegetables - Mixed - Frozen - Pea/carrot  
Vegetables - Onions - Breaded - Frozen  
Vegetables - Peas - Frozen  
Vegetables - Potatoes - Frozen/refrigerated  
Vegetables - Potatoes - Frozen/refrigerated - Crinkle cut  
Vegetables - Potatoes - Mashed - Dehydrated  
Vegetables - Potatoes - Specialty - Dehydrated - Au gratin  
Vegetables - Potatoes - Specialty - Dehydrated - Scalloped  
Vegetables - Remaining - Frozen - Chopped  
Vegetables - Remaining - Frozen - Floret  
Vegetables - Remaining - Frozen - Whole  
Vegetables-beans-chili-canned  
Vegetables-beans-kidney/red-canned - Dark red kidney beans  
Vegetables-beans-kidney/red-canned - Light red kidney beans  
Vegetables-beans-remaining-canned  
Vegetables-corn-whole kernel-canned  
Vegetables-corn-whole kernel-canned - No salt  
Vegetables-green beans-frozen - Cut  
Vegetables-green beans-frozen - French cut  
Vegetables-mixed-canned  
Vegetables-peas-canned  
Vegetables-potatoes-canned - Sliced  
Vegetables-potatoes-canned - Whole  
Vegetables-sauerkraut-shelf stable  
Worcestershire sauce  
Yogurt-refrigerated - Blueberry  
Yogurt-refrigerated - Peach  
Yogurt-refrigerated - Rasberry  
Yogurt-refrigerated - Strawberry

Yogurt-refrigerated - Strawberry & banana

Remaining categories

Baby care products-bath  
Baby care products-oil  
Baby care products-powder  
Bags - Lawn & leaf  
Bags - Paper  
Bags - Tall kitchen  
Bags - Trash/trash compactor  
Batteries  
Cat food - Dry type  
Charcoal/wood lighters  
Cookware product  
Cosmetics-nail polish remover  
Dental floss - Mint  
Dental floss - Waxed  
Denture cleansers  
Disposable cups  
Disposable cups - Hot & cold  
Disposable dishes - Bowl  
Disposable dishes - Plate  
Dog & cat treats  
Dog & cat treats - Assorted  
Dog food - Dry type  
Dog food - Wet type  
Fabric softeners-dry  
Food storage containers - Rectangle  
Food storage containers - Square  
Lamps - Incandescent  
Lighters  
Oral rinse and antiseptic - Citrus  
Oral rinse and antiseptic - Mint  
Oral rinse and antiseptic - Original  
Oral rinse and antiseptic - Other  
Paper napkins - Dinner  
Paper napkins - Luncheon  
Paper towels  
Pens & pencils  
Sanitary napkins - Other - Maxi pad  
Sanitary napkins - Other - Pantyliner  
Sanitary napkins - Wing  
Scouring pads - Scouring pads  
Scouring pads - Scrubber sponge

---

Notes: Table lists comparable product groups used in regression analysis.

Online Appendix Table 4.1.1: Occupation and knowledge of headache remedy active ingredients

Dependent variable: Share of active ingredients known			
Shopper characteristics:	(1)	(2)	(3)
College education	0.0463 (0.0035)		0.0460 (0.0053)
Pharmacist or physician	0.2991 (0.0128)	0.2516 (0.0137)	0.3147 (0.0284)
Other healthcare occupation	0.1770 (0.0058)	0.1253 (0.0093)	0.1787 (0.0097)
Health major		0.0757 (0.0092)	
Non-health science major		0.1058 (0.0100)	
Demographic controls?	X	X	X
Income category fixed effects?	X	X	X
Sample	All	College major reported	Not currently employed
Mean of dependent variable	0.5825	0.6199	0.5538
R <sup>2</sup>	0.0744	0.0906	0.0778
Number of households	35254	18083	16496
Number of shoppers	43604	20500	18452

Notes: Unit of observation is a shopper. Standard errors in parentheses are clustered by household. Occupation is defined as of a shopper's most recent employment spell. "Health major" and "non-health science major" refer to the shopper's reported college major. Demographic controls are indicators for categories of race, age, household composition, and housing ownership. These results complement the visual evidence presented in figure 1 of the paper.

Online Appendix Table 4.1.2: Demographic characteristics of employed vs. not currently employed experts

	<i>Panel A: Healthcare workers</i>	
	Employed	Not currently employed
<i>Of all primary shoppers</i>		
Share of age 65 +	0.0546	0.4013
Share of age 25 – 55	0.6976	0.3205
Number of households	2655	1089
<i>Of primary shoppers ages 25 – 55</i>		
Share male	0.1226	0.0602
Number of households	1852	349
<i>Of female primary shoppers ages 25 – 55</i>		
Share with children under six years old in household	0.1237	0.1982
Number of households	1625	328
	<i>Panel B: Food preparers</i>	
	Employed	Not currently employed
<i>Of all primary shoppers</i>		
Share of age 65 +	0.0392	0.2407
Share of age 25 – 55	0.7180	0.4907
Number of households	766	536
<i>Of primary shoppers ages 25 – 55</i>		
Share male	0.2127	0.1597
Number of households	550	263
<i>Of female primary shoppers ages 25 – 55</i>		
Share with children under six years old in household	0.1155	0.1493
Number of households	433	221

Notes: Table displays demographic characteristics for primary shoppers in the Nielsen Homescan Panel with healthcare or food preparer occupation who are employed and not currently employed, respectively. Shares are taken with respect to the relevant subset for each column.

Online Appendix Table 4.1.3: Occupational knowledge scores and headache remedy purchases

	Dependent variable: Purchase is a store brand			Dependent variable: Share of active ingredients known
	(1)	(2)	(3)	(4)
Primary shopper characteristics:				
College education	0.0302 (0.0065)	0.0300 (0.0065)	0.0324 (0.0068)	0.0440 (0.0038)
Medicine-dentistry knowledge score	0.0250 (0.0028)	0.0193 (0.0042)	0.0190 (0.0044)	0.0134 (0.0026)
Pharmacist or physician		0.0842 (0.0331)		0.2445 (0.0165)
Other healthcare occupation		0.0232 (0.0156)		0.1389 (0.0095)
Sample	All	All	Not in health-care occupation	All
Mean of dependent variable	0.7439	0.7439	0.7356	0.5851
R <sup>2</sup>	0.3201	0.3202	0.3297	0.0776
Number of households	34407	34407	31625	31497
Number of observations	242558	242558	223050	37856

Notes: Unit of observation is a purchase occasion in columns (1)-(3) and a shopper in column (4). Column (1) is the same as the baseline specification in column (3) of table 3 but replaces the “pharmacist or physician” and “other health occupation” indicators with a “medicine-dentistry knowledge score” obtained from the National Center for O\*NET Development. The “medicine-dentistry knowledge score” measures for each occupation the “knowledge of the information and techniques needed to diagnose and treat human injuries, diseases, and deformities,” including “symptoms, treatment alternatives, drug properties and interactions, and preventive healthcare measures.” The score is standardized so that it has mean zero and standard deviation one across all shoppers. Column (2) is the same as column (1) but adds the “pharmacist or physician” and “other healthcare occupation” indicators. Column (3) is the same as column (1) but restricts the sample to those not in a healthcare occupation. Column (4) is the same as column (1) of online appendix table 4.1.1 but adds the “medicine-dentistry knowledge score.”

Online Appendix Table 4.1.4: Occupation and headache remedy purchases by well-informed consumers

Dependent variable: Purchase is a store brand			
Primary shopper characteristics:	(1)	(2)	(3)
College education	0.0313 (0.0074)	0.0148 (0.0129)	0.0133 (0.0123)
Pharmacist or physician	0.1578 (0.0331)	0.1083 (0.0365)	0.0304 (0.0379)
Other healthcare occupation	0.0732 (0.0130)	0.0466 (0.0153)	0.0198 (0.0160)
Sample	Second survey wave	Second survey wave	Second survey wave
Primary shopper survey response:			
Know all active ingredients		X	X
Believe store brands are “just as safe”			X
Mean of dependent variable	0.7392	0.8054	0.8732
R <sup>2</sup>	0.3440	0.5412	0.6049
Number of households	26530	6887	4274
Number of purchase occasions	195268	52808	33373

Notes: Unit of observation is a purchase of a headache remedy by a household. Observations are weighted by equivalent volume (number of pills). Standard errors in parentheses are clustered by household. Occupation is defined as of the primary shopper's most recent employment spell. All specifications include demographic controls, income category fixed effects, comparable product group fixed effects, and market-chain-quarter fixed effects as in column (3) of table 3. “Know all active ingredients” means the primary shopper correctly answered all questions about headache remedy active ingredients. “Believe store brands are ‘just as safe’” means the primary shopper chose “agree” (1) on a 1-7 agree/disagree scale in response to the statement “Store-brand products for headache remedies/pain relievers are just as safe as the brand name products.” Column (3) replicates table 3 column (6) in the paper.

Online Appendix Table 4.1.5: Occupation and headache remedy purchases, primary vs. secondary shopper

	Dependent variable: Purchase is a store brand		
	(1)	(2)	(3)
<i>Primary shopper</i>			
College education	0.0351 (0.0061)	0.0368 (0.0086)	
Pharmacist or physician	0.1529 (0.0295)	0.1672 (0.0441)	
Other healthcare occupation	0.0790 (0.0102)	0.0741 (0.0125)	
<i>Secondary shopper</i>			
College education		0.0304 (0.0086)	
Pharmacist or physician		-0.0313 (0.0557)	
Other healthcare occupation		0.0367 (0.0192)	
<i>Actual shopper (imputed)</i>			
College education		0.0405 (0.0068)	
Pharmacist or physician		0.1578 (0.0332)	
Other healthcare occupation		0.0889 (0.0120)	
Mean of dependent variable	0.7424	0.7570	0.7424
R <sup>2</sup>	0.3037	0.3891	0.3039
Number of households	39555	17326	39555
Number of purchase occasions	279499	130566	279499

Notes: Column (1) repeats the baseline estimates in column (3) of table 3. Column (2) adds controls for the education and occupation of the secondary shopper, if one exists. Column (3) imputes the actual shopper's education and occupation by assuming that the primary shopper is the actual shopper when there is no secondary shopper and that the primary shopper is the actual shopper 74 percent of the time when there is a secondary shopper. We estimate this probability that the primary shopper is the actual shopper using data from a 2013 Private Label Manufacturers Association (PLMA) consumer research study (Private Label Manufacturers Association 2013). In the study, primary shoppers were asked the following: "What percentage of the household shopping, in all, would you say is routinely done by others? (i) 25 percent or less (ii) over 25 to 50 percent (iii) over 50 to 75 percent (iv) more than 75 percent (v) don't know/no response." We obtain the probability by restricting to those who answered (i)-(iv) and assuming respondents are uniformly distributed within each bin.

Online Appendix Table 4.1.6: Occupation and purchase behavior, headache remedies by comparable

Headache remedy	Probability of purchase			Probability of store brand		
	Not healthcare	Healthcare	Difference	Not healthcare	Healthcare	Difference
Acetaminophen gelcaps	0.0497	0.0330	-0.0168 (0.0029)	0.5035	0.5563	0.0528 (0.0354)
Ibuprofen gelcaps	0.0297	0.0249	-0.0048 (0.0030)	0.2800	0.2708	-0.0092 (0.0408)
Acetaminophen tablets	0.1890	0.1909	0.0018 (0.0081)	0.7922	0.8867	0.0946 (0.0139)
Aspirin tablets	0.1767	0.1649	-0.0118 (0.0071)	0.7529	0.8010	0.0480 (0.0272)
Ibuprofen tablets	0.4353	0.4668	0.0315 (0.0106)	0.8012	0.8681	0.0669 (0.0149)
Naproxen sodium tablets	0.1195	0.1195	0.0000 (0.0065)	0.5693	0.7203	0.1509 (0.0229)
Mean absolute difference	0.0087		0.0481		1.2310	
Standardized absolute difference	0.2584					

Notes: Statistics presented under the heading “probability of purchase” come from a set of linear probability models of the likelihood of purchasing the given product. Statistics presented under the heading “probability of store brand” come from a set of linear probability models of the likelihood of purchasing store brand conditional on purchasing the given product. The “healthcare” column presents the predicted probability from the given model for purchases made by households whose primary shopper is in a healthcare occupation. The “not healthcare” column presents the predicted probability for the same purchases under the counterfactual in which the household’s primary shopper is not in a healthcare occupation. The “difference” column presents the difference between the prior two columns with standard errors in parentheses clustered by household. The “mean absolute difference” is the weighted mean absolute difference between the “healthcare” and “not healthcare” columns, with weights equal to the probability of purchase for the “not healthcare” group. The “standardized absolute difference” is the weighted mean ratio of the absolute difference between the “healthcare” and “not healthcare” columns and the standard deviation of the purchase probabilities in the “not healthcare” group. This calculation serves to benchmark the magnitude of the occupation difference by the extent of variation due to non-occupational demographic factors. Each linear probability model’s unit of observation is the purchase occasion. Observations are weighted by equivalent volume (in number of pills). Standard errors in parentheses are clustered by household. All specifications include an indicator for college completion, demographic controls, income category fixed effects, and market-chain-quarter fixed effects. Demographic controls are indicators for categories of race, age, household composition, and housing ownership. Predicted probabilities set the market-chain-quarter fixed effect so that the mean predicted probability is equal to the empirical share.

Online Appendix Table 4.2.1: Knowledge and pantry staple purchases

Dependent variable: Purchase is a store brand			
Primary shopper characteristics:	(1)	(2)	(3)
College education	-0.0232 (0.0058)	-0.0057 (0.0060)	-0.0049 (0.0046)
Share of pantry staple ingredients known	0.0021 (0.0092)	0.0058 (0.0091)	0.0079 (0.0069)
Demographic controls?	X	X	X
Market & quarter fixed effects?	X	X	
Income category fixed effects?		X	X
Market-chain-quarter fixed effects?			X
Sample	Second survey wave	Second survey wave	Second survey wave
Mean of dependent variable	0.5968	0.5968	0.5968
R <sup>2</sup>	0.0863	0.0902	0.4026
Number of households	32872	32872	32872
Number of purchase occasions	452694	452694	452694

Notes: Unit of observation is a purchase of a pantry staple by a household. Observations are weighted by equivalent volume (pounds). Standard errors in parentheses are clustered by household. “Share of pantry staple ingredients known” refers to the fraction of the following ingredients that our 2011 PanelViews survey respondents identified: (i) the most common additive to table salt (iodine), (ii) the scientific name for baking soda (sodium bicarbonate), and (iii) the most common ingredient of granulated sugar (sucrose). Demographic controls are indicators for categories of race, age, household composition, and housing ownership. All specifications include fixed effects for the comparable product group. These specifications are analogous to table 2, columns (1), (3), and (4), in the paper.

Online Appendix Table 4.2.2: Occupation and knowledge of pantry staple ingredients

Dependent variable: Share of pantry staple ingredients known			
Shopper characteristics:	(1)	(2)	(3)
College education	0.1004 (0.0033)		0.0977 (0.0048)
Chef	0.0840 (0.0255)	0.1211 (0.0461)	0.0775 (0.0348)
Other food preparer	-0.0160 (0.0100)	-0.0027 (0.0215)	-0.0221 (0.0132)
Health major		0.0930 (0.0063)	
Non-health science major		0.1999 (0.0088)	
Demographic controls?	X	X	X
Income category fixed effects?	X	X	X
Sample	All	College major reported	Not currently employed
Mean of dependent variable	0.5832	0.6382	0.5809
R <sup>2</sup>	0.0390	0.0454	0.0407
Number of households	38729	19542	18302
Number of shoppers	46802	21856	20378

Notes: Unit of observation is a shopper. Standard errors in parentheses are clustered by household. Occupation is defined as of the shopper's most recent employment spell. "Health major" and "non-health science major" refer to the shopper's reported college major. Demographic controls are indicators for categories of race, age, household composition, and housing ownership. The specifications are analogous to online appendix table 4.1.1.

Online Appendix Table 4.2.3: Occupation and pantry staple purchases, primary vs. secondary shopper

Dependent variable: Purchase is a store brand			
	(1)	(2)	(3)
<i>Primary shopper</i>			
College education	-0.0062 (0.0039)	-0.0001 (0.0060)	
Chef	0.1175 (0.0189)	0.0952 (0.0240)	
Other food preparer	0.0227 (0.0101)	0.0127 (0.0156)	
<i>Secondary shopper</i>			
College education		-0.0154 (0.0063)	
Chef		-0.0346 (0.0477)	
Other food preparer		-0.0034 (0.0190)	
<i>Actual shopper (imputed)</i>			
College education			-0.0083 (0.0043)
Chef			0.1256 (0.0224)
Other food preparer			0.0265 (0.0108)
Mean of dependent variable	0.5987	0.6091	0.5987
R <sup>2</sup>	0.3862	0.4276	0.3862
Number of households	44502	19301	44502
Number of purchase occasions	588484	291115	588484

Notes: Column (1) repeats the baseline estimates in column (3) of table 4. Column (2) adds controls for the education and occupation of the secondary shopper, if one exists. Column (3) imputes the actual shopper's education and occupation by assuming that the primary shopper is the actual shopper when there is no secondary shopper and that the primary shopper is the actual shopper 74 percent of the time when there is a secondary shopper. We estimate this probability that the primary shopper is the actual shopper using data from a 2013 Private Label Manufacturers Association (PLMA) consumer research study (Private Label Manufacturers Association 2013). In the study, primary shoppers were asked the following: "What percentage of the household shopping, in all, would you say is routinely done by others? (i) 25 percent or less (ii) over 25 to 50 percent (iii) over 50 to 75 percent (iv) more than 75 percent (v) don't know/no response." We obtain the probability by restricting to those who answered (i)-(iv) and assuming respondents are uniformly distributed within each bin.

Online Appendix Table 4.2.4: Occupational knowledge scores and pantry staple purchases

	Dependent variable: Purchase is a store brand			Dependent variable: Share of pantry staple ingredients known
Primary shopper characteristics:	(1)	(2)	(3)	(4)
College education	-0.0050 (0.0042)	-0.0048 (0.0042)	-0.0052 (0.0042)	0.1004 (0.0035)
Food production knowledge score	0.0067 (0.0019)	0.0046 (0.0026)	0.0046 (0.0027)	0.0014 (0.0022)
Chef		0.1011 (0.0219)		0.0775 (0.0272)
Other food preparer		0.0066 (0.0153)		-0.0257 (0.0139)
Sample	All	All	Not food preparer	All
Mean of dependent variable	0.5984	0.5984	0.5953	0.5854
R <sup>2</sup>	0.3934	0.3935	0.3949	0.0401
Number of households	38723	38723	37730	34469
Number of observations	513302	513302	497334	40618

Notes: Unit of observation is a purchase occasion in columns (1)-(3) and a shopper in column (4). Column (1) is the same as the baseline specification in column (3) of table 4 but replaces the “chef” and “other food preparer” indicators with a “food production knowledge score” obtained from the National Center for O\*NET Development. The “food production knowledge score” measures for each occupation the “knowledge of techniques and equipment for planting, growing, and harvesting food products (both plant and animal) for consumption, including storage/handling techniques.” The score is standardized so that it has mean zero and standard deviation one across all shoppers. Column (2) is the same as column (1) but adds the “chef” and “other food preparer” indicators. Column (3) is the same as column (1) but restricts the sample to those who are not food preparers. Column (4) is the same as column (1) of online appendix table 4.2.2 but adds the “food production knowledge score.”

Online Appendix Table 5.1.1: Standard errors by bootstrap size, pharmacist / physician coefficients

Comparables	Standard error of pharmacist / physician coefficients		
	Asymptotic	20 Bootstraps	200 Bootstraps
1% low fat milk (plastic)	0.0357	0.0334	0.0374
Baby care products-oil	0.2038	0.4131	0.3367
Bread (wheat)	0.0347	0.0313	0.0354
Canned dark red kidney beans	0.0566	0.0433	0.0608
Canola oil	0.0538	0.0391	0.0522
Canola oil cooking sprays	0.0526	0.0504	0.0547
Cat food - dry type	0.0553	0.0563	0.0608
Cheddar cheese (mild)	0.0634	0.0597	0.0753
Club soda	0.1284	0.1374	0.1176
Cookies (peanut butter)	0.0787	0.0878	0.0784
Dehydrated potatoes (mashed)	0.0403	0.0348	0.0374
Dried fruit	0.0377	0.0438	0.0452
Frozen onions (breaded)	0.0948	0.1221	0.1050
Ginger ale	0.0835	0.1730	0.1573
Nuts	0.0545	0.0848	0.0692
Root beer (can)	0.0485	0.0633	0.0563
Shelf-stable cranberries (jellied)	0.0470	0.0502	0.0456
Starlight mint candy	0.1983	0.3097	0.3039
Sweet pickles (whole)	0.1394	0.1302	0.1567
Vegetable juice	0.0813	0.0986	0.1118

Notes: Table displays standard errors of “pharmacist or physician” coefficients from a regression following the specification of figure 7, for a randomly chosen set of 20 comparables. The “asymptotic” column presents asymptotic standard errors of the coefficients. The “20 Bootstraps” column presents standard errors using 20 bootstrap replications in which we draw households at random with replacement, and the “200 Bootstraps” column presents standard errors using 200 bootstrap replications.

Online Appendix Table 5.1.2: *Consumer Reports* designation and the effects of knowledge

*Panel A: Health comparables*

Dependent variable: Purchase is a store brand

	<i>Consumer Reports</i> designation			Number of comparables
	Equivalent	Not equivalent	Difference	
(1) Share of active ingredients	0.1161 (0.0277)	0.0393 (0.0110)	0.0769 (0.0298) [0.3090]	20
(2) College education	0.0163 (0.0068)	0.0050 (0.0251)	0.0113 (0.0260) [0.6179]	20
(3) Pharmacist or physician	0.1096 (0.0263)	0.2180 (0.1299)	-0.1084 (0.1325) [0.3048]	20
(4) Other healthcare occupation	0.0654 (0.0106)	0.0308 (0.0331)	0.0346 (0.0348) [0.4531]	20

*Panel B: Food and drink comparables*

Dependent variable: Purchase is a store brand

	<i>Consumer Reports</i> designation			Number of comparables
	Equivalent	Not equivalent	Difference	
(5) College education	0.0034 (0.0066)	0.0063 (0.0017)	-0.0029 (0.0068) [0.7650]	44
(6) Chef	0.1011 (0.0403)	0.0119 (0.0057)	0.0893 (0.0407) [0.1130]	44
(7) Other food preparer	0.0050 (0.0195)	0.0042 (0.0039)	0.0009 (0.0199) [0.9780]	44

Notes: The first column shows the precision-weighted mean of coefficient estimates from separate regressions for all comparable product groups in which *Consumer Reports* (*CR*) readers would consider store brands and national brands to be equivalent. The second column shows the analogous figure for all comparable product groups in which *CR* readers would not consider store brands and national brands to be equivalent. The third column shows the difference between these two means. *CR* equivalence designations were determined by examining recent *CR* quality comparisons and buying recommendations for each comparable product group. Row (1) shows the weighted mean coefficient on “share of active ingredients known” from a specification analogous to table 2 column (4). Rows (2)-(4) show weighted mean coefficients on “college education,” “pharmacist or physician,” and “other healthcare occupation” respectively from a specification analogous to table 3 column (3). Rows (5)-(7) show weighted mean coefficients on “college education,” “chef,” and “other food preparer” respectively from a specification analogous to table 4 column (3). Standard errors are reported in parentheses. Permutation p-values in brackets are from a test of the sharp null hypothesis that, for each comparable product group, the knowledge effect is the same across *CR* equivalence designations; they are based on 1000 permutations of the *CR* equivalence designation.

Online Appendix Table 5.1.3: Advertising intensity and the effects of knowledge

*Panel A: Health comparables*

Dependent variable: Purchase is a store brand

		Advertising intensity			Number of comparables
		High	Low	Difference	
(1)	Share of active ingredients	0.1233 (0.0207)	0.0400 (0.0105)	0.0833 (0.0232) [0.2250]	33
(2)	College education	0.0214 (0.0056)	0.0136 (0.0090)	0.0078 (0.0106) [0.6420]	33
(3)	Pharmacist or physician	0.1007 (0.0218)	0.0506 (0.0396)	0.0501 (0.0452) [0.4330]	33
(4)	Other healthcare occupation	0.0636 (0.0081)	0.0349 (0.0128)	0.0287 (0.0152) [0.4870]	33

*Panel B: Food and drink comparables*

Dependent variable: Purchase is a store brand

		Advertising intensity			Number of comparables
		High	Low	Difference	
(5)	College education	0.0087 (0.0020)	0.0062 (0.0018)	0.0025 (0.0027) [0.7470]	69
(6)	Chef	0.0155 (0.0216)	0.0184 (0.0088)	-0.0029 (0.0233) [0.9380]	69
(7)	Other food preparer	-0.0071 (0.0063)	0.0202 (0.0036)	-0.0273 (0.0073) [0.0780]	69

Notes: The first column shows the precision-weighted mean of coefficients from separate regressions for relevant high advertising intensity comparable product groups. The second column shows the same weighted mean for low advertising intensity comparable product groups. The third column shows the difference between the two means. Advertising intensity measures are taken from Bronnenberg et al. (2012). Row (1) shows the weighted mean coefficient on “share of active ingredients known” from a specification analogous to table 2 column (4). Rows (2)-(4) show weighted mean coefficients on “college education,” “pharmacist or physician,” and “other healthcare occupation” respectively from a specification analogous to table 3 column (3). Rows (5)-(7) show weighted mean coefficients on “college education,” “chef,” and “other food preparer” respectively from a specification analogous to table 4 column (3). Standard errors are reported in parentheses. Permutation p-values in brackets are from a test of the sharp null hypothesis that, for each product module, the mean knowledge effect is the same across advertising intensities; they are based on 1000 permutations of the advertising intensity classification.

Online Appendix Table 5.1.4: Store-brand purchase shares by occupation, health products

	All consumers	Pharmacist or physician	Other healthcare occupation
Adult incontinence (small/med)	0.5447 (1960)	0.8174 (14)	0.4365 (135)
Laxative tablets	0.7333 (6888)	0.7286 (34)	0.8855 (527)
Sleeping aid mini-caplets	0.6904 (2108)	1.0000 (2)	0.8563 (91)
Ibuprofen gelcaps	0.2859 (5992)	0.5757 (24)	0.3412 (399)
Naproxen sodium tablets	0.5659 (14876)	0.8845 (60)	0.6807 (1055)
Adult incontinence (large)	0.6199 (1325)	0.6769 (5)	0.4071 (109)
Antacid tablets (ranitidine)	0.8404 (2457)	0.8815 (12)	0.8344 (179)
Arthritis pain remedies	0.6079 (3675)	0.8214 (9)	0.7224 (238)
Acetaminophen PM tablets	0.6686 (4427)	0.9459 (6)	0.7064 (255)
Diarrhea remedies	0.8019 (8883)	0.9493 (49)	0.8578 (662)
Laxative caplets	0.7157 (2224)	1.0000 (8)	0.7409 (154)
Hydrocortisones	0.7674 (10313)	0.8612 (61)	0.7957 (766)
Ibuprofen tablets	0.8141 (25678)	0.8933 (118)	0.8749 (1858)
Fabric bandages	0.5650 (5117)	0.4974 (24)	0.6097 (308)
Acetaminophen gelcaps	0.5111 (9311)	0.5348 (23)	0.6035 (570)
Calcium tablets	0.7578 (9632)	0.7597 (43)	0.7595 (685)
Allergy tablets (loratadine)	0.8749 (14188)	0.9470 (76)	0.9044 (1016)
Adult incontinence	0.2471 (3571)	0.3209 (17)	0.2529 (319)
Mineral caplets	0.7073 (2803)	0.8528 (20)	0.8173 (257)
Acetaminophen tablets	0.8064 (18337)	0.9254 (85)	0.8975 (1294)
Aspirin tablets	0.7514 (13171)	0.8598 (60)	0.7930 (866)
Multi-vitamins (with minerals)	0.7185	0.7374	0.7598

	(7480)	(36)	(564)
Contact lens solution (sensitive eyes)	0.6804	0.8571	0.7342
	(1498)	(12)	(93)
Digestive aids (dairy)	0.7954	0.7983	0.8714
	(1652)	(18)	(134)
Laxative salts	0.3980	0.7119	0.4490
	(5866)	(19)	(382)
Aspirin tablets (low dose)	0.7104	0.6897	0.7710
	(17342)	(79)	(1243)
Cotton balls	0.9083	0.9184	0.9182
	(11451)	(43)	(800)
Cotton swabs	0.3877	0.3910	0.3904
	(30087)	(141)	(2031)
Plastic bandages	0.3656	0.3866	0.3794
	(11920)	(63)	(790)
Antacid tablets (ranitidine max strength)	0.7870	0.7946	0.7554
	(2785)	(17)	(231)
Antacid tablets (omeprazole)	0.4765	0.3759	0.5409
	(6423)	(24)	(530)
Flexible fabric bandages	0.5613	0.5723	0.6051
	(6348)	(35)	(441)
Sheer bandages	0.3226	0.3898	0.3619
	(8640)	(42)	(511)
Iron tablets	0.6826	0.8311	0.6643
	(3319)	(13)	(247)
Anti-gas gelcaps	0.8061	0.8514	0.8468
	(3694)	(31)	(284)
Sleeping aid tablets	0.6845	0.2546	0.6539
	(1761)	(6)	(110)
Eye drops & lotions	0.1848	0.1267	0.1864
	(17730)	(85)	(1264)
Cotton rounds	0.8526	0.6730	0.8748
	(2993)	(11)	(204)
Contact lens solution	0.6595	0.6099	0.6754
	(7493)	(60)	(569)
Antiseptics (hydrogen peroxide)	0.9383	0.9152	0.9462
	(8920)	(28)	(569)
Antiseptics (alcohol)	0.8055	0.7708	0.8112
	(9908)	(37)	(658)
Gauze pads	0.6139	0.6875	0.5774
	(3616)	(21)	(255)
Antacid tablets (famotidine max strength)	0.7755	0.8741	0.8416
	(3057)	(16)	(246)
Antacid liquid (bismuth)	0.4848	0.5970	0.5622
	(4245)	(14)	(261)
Rectal medication (suppository)	0.6526	0.7321	0.3986
	(1808)	(8)	(118)
Migraine tablets	0.3066	0.1036	0.3831

	(2645)	(11)	(204)
Nasal decongestant	0.7845	0.9197	0.8760
	(3098)	(13)	(232)
Eye care (remaining)	0.5680	0.5758	0.6523
	(2880)	(21)	(243)
Alkalizing effervescents	0.5903	0.1176	0.7539
	(2225)	(5)	(130)
Rectal medication (ointment)	0.6438	0.3390	0.5995
	(2991)	(9)	(205)

Notes: Table reports the store-brand share of purchases (weighted by equivalent volume) for each health-related comparable product group by occupation. Number of households in each cell is given in parentheses. Rows are sorted according to the estimated coefficient on “pharmacist or physician” as in figure 7.

Online Appendix Table 5.2.1: Standard errors by bootstrap size, chef coefficients

Comparables	Standard error of chef coefficients		
	Asymptotic	20 Bootstraps	200 Bootstraps
1% low fat milk (plastic)	0.0354	0.0421	0.0434
Baby care products-oil	0.3993	0.4425	0.4381
Bread (wheat)	0.0616	0.0545	0.0667
Canned dark red kidney beans	0.0582	0.0527	0.0628
Canola oil	0.0659	0.0761	0.0636
Canola oil cooking sprays	0.0666	0.0547	0.0683
Cat food - dry type	0.0857	0.1308	0.1039
Cheddar cheese (mild)	0.1101	0.1343	0.1343
Club soda	0.1480	0.2165	0.2242
Cookies (peanut butter)	0.0951	0.0963	0.1066
Dehydrated potatoes (mashed)	0.0353	0.0300	0.0378
Dried fruit	0.0769	0.0595	0.0958
Frozen onions (breaded)	0.1225	0.1115	0.1421
Ginger ale	0.0720	0.0987	0.0793
Nuts	0.1737	0.2101	0.2087
Root beer (can)	0.0668	0.0780	0.0750
Shelf-stable cranberries (jellied)	0.0442	0.0477	0.0489
Starlight mint candy	0.0503	0.0513	0.0705
Sweet pickles (whole)	0.1353	0.1432	0.1645
Vegetable juice	0.0987	0.1270	0.1190

Notes: Table displays standard errors of “chef” coefficients from a regression following the specification of figure 9, for a randomly chosen set of 20 comparables. The “asymptotic” column presents asymptotic standard errors of the coefficients. The “20 Bootstraps” column presents standard errors using 20 bootstrap replications in which we draw households at random with replacement, and the “200 Bootstraps” column presents standard errors using 200 bootstrap replications.

Online Appendix Table 5.2.2: Store-brand purchase shares by occupation, food and drink products

	All consumers	Chefs	Other food preparers
Baking mixes	0.3593 (15767)	0.7310 (42)	0.4398 (420)
Dried fruit	0.4226 (30073)	0.5290 (78)	0.3638 (696)
Sugar (granulated)	0.6049 (33821)	0.7376 (102)	0.6920 (816)
Sugar (brown)	0.6988 (23692)	0.8798 (78)	0.7623 (570)
Dairy spreads & dips	0.2335 (14728)	0.3546 (39)	0.2950 (388)
Sugar (powdered)	0.7233 (18091)	0.9262 (61)	0.7206 (490)
Soup	0.3595 (40648)	0.5102 (117)	0.4117 (964)
Jams & jellies	0.3767 (41733)	0.4369 (114)	0.4423 (974)
Gelatins & syrup	0.2790 (30800)	0.3697 (88)	0.3735 (801)
Cottage cheese, etc.	0.5232 (41261)	0.5755 (116)	0.5775 (971)
Prepared food	0.2450 (26784)	0.4009 (75)	0.2900 (735)
Baking supplies	0.4381 (21023)	0.5541 (61)	0.4869 (528)
Cheese	0.5495 (49462)	0.5929 (135)	0.5755 (1134)
Frozen vegetables	0.6593 (40733)	0.7071 (108)	0.6661 (947)
Pickles, olives & relish	0.3668 (38743)	0.4580 (114)	0.3442 (925)
Baking soda	0.3339 (27350)	0.5398 (73)	0.3494 (626)
Dough products	0.2833 (33386)	0.3355 (83)	0.3410 (761)
Salad dressings & mayo	0.1742 (39682)	0.2188 (110)	0.2129 (978)
Canned vegetables	0.5291 (46436)	0.5381 (129)	0.5950 (1067)
Table syrup & molasses	0.3217 (23446)	0.3762 (66)	0.3894 (587)
Oil & shortening	0.4742 (42966)	0.5176 (121)	0.5347 (974)
Bread & baked goods	0.5346	0.6379	0.6315

	(48816)	(133)	(1135)
Canned seafood	0.3119	0.4249	0.4003
	(37091)	(96)	(886)
Frozen fruit toppings	0.3528	0.3906	0.4170
	(27234)	(67)	(703)
Dried veggies & grains	0.5019	0.2990	0.5700
	(28428)	(86)	(656)
Candy	0.5283	0.5364	0.5869
	(32037)	(86)	(759)
Salt (plain)	0.4744	0.4970	0.4415
	(9326)	(33)	(234)
Canned fruit	0.4883	0.5252	0.4723
	(36480)	(94)	(839)
Tea	0.5276	0.7648	0.5935
	(11382)	(33)	(276)
Salt (iodized)	0.5346	0.5535	0.6324
	(21691)	(64)	(532)
Milk	0.7884	0.8201	0.7893
	(48333)	(133)	(1117)
Eggs	0.6037	0.5913	0.5988
	(48622)	(133)	(1123)
Frozen breakfast foods	0.4112	0.4832	0.4434
	(27956)	(61)	(627)
Juice drinks	0.3798	0.3409	0.3901
	(20095)	(52)	(483)
Frozen juice drinks	0.6732	0.7525	0.6932
	(6527)	(14)	(157)
Condiments & sauces	0.2844	0.3396	0.3479
	(45702)	(130)	(1090)
Breakfast foods	0.8580	1.0000	0.8634
	(3348)	(5)	(113)
Cookies	0.2712	0.2874	0.2678
	(45810)	(121)	(1050)
Snacks	0.2458	0.3266	0.3520
	(28621)	(74)	(642)
Frozen pizza & snacks	0.1383	0.1662	0.1236
	(24463)	(56)	(586)
Spices & seasonings	0.3597	0.3732	0.3720
	(38371)	(109)	(900)
Butter & margarine	0.1275	0.1308	0.1975
	(33484)	(91)	(842)
Frozen baked goods	0.6037	0.5714	0.6972
	(12813)	(47)	(335)
Ice cream	0.5988	0.1921	0.6294
	(14506)	(48)	(363)
Yogurt	0.5436	0.4685	0.6153
	(23798)	(52)	(533)
Carbonated beverages	0.1319	0.1149	0.1674

	(47425)	(128)	(1115)
Powdered milk	0.5286	0.5750	0.5719
	(18369)	(56)	(432)
Cereal	0.4411	0.3595	0.4780
	(32954)	(79)	(725)
Nuts	0.1815	0.2011	0.1682
	(9254)	(28)	(207)
Prepared food (dry)	0.3618	0.4398	0.4039
	(35431)	(94)	(886)

Notes: Table reports the store-brand share of purchases (weighted by equivalent volume) for each food and drink Nielsen product group by occupation. Number of households in each cell is given in parentheses.

Rows are sorted according to the estimated coefficient on “chef” as in figure 9.

Online Appendix Table 6.2.1: Data moments: prices and cost by comparable

	$p(1)$	$p(0)$	$c$
Headache remedies			
Acetaminophen gelcaps	0.1008	0.0587	0.0340
Ibuprofen gelcaps	0.1096	0.0757	0.0500
Acetaminophen tablets	0.0911	0.0332	0.0144
Aspirin tablets	0.0596	0.0133	0.0062
Ibuprofen tablets	0.0857	0.0306	0.0146
Naproxen sodium tablets	0.0959	0.0588	0.0395
Other health categories			
Digestive aids (dairy)	0.2409	0.1464	0.0836
Multi-vitamins (with minerals)	0.0762	0.0535	0.0391
Antiseptics (alcohol)	0.1216	0.0773	0.0553
Antiseptics (hydrogen peroxide)	0.0944	0.0437	0.0278
Antacid tablets (famotidine max strength)	0.3521	0.1736	0.1074
Antacid tablets (ranitidine max strength)	0.3483	0.1846	0.0723
Antacid tablets (omeprazole)	0.6870	0.5317	0.4609
Antacid tablets (ranitidine)	0.2985	0.1488	0.0481
Antacid liquid (bismuth)	0.4469	0.2784	0.1718
Mineral caplets	0.0907	0.0536	0.0405
Iron tablets	0.1115	0.0579	0.0162
Calcium tablets	0.0621	0.0298	0.0147
Nasal decongestant	10.1194	4.1757	1.6714
Acetaminophen PM tablets	0.1095	0.0588	0.0211
Aspirin tablets (low dose)	0.0533	0.0278	0.0131
Migraine tablets	0.0869	0.0604	0.0445
Laxative caplets	0.1314	0.0809	0.0273
Laxative tablets	0.2150	0.0878	0.0323
Laxative salts	0.0885	0.0460	0.0251
Diarrhea remedies	0.3714	0.1963	0.0566
Allergy tablets (loratadine)	0.7482	0.2217	0.0575
Rectal medication (suppository)	0.5450	0.3380	0.0905
Rectal medication (ointment)	5.6730	3.1863	1.5893
Sleeping aid mini-caplets	0.1326	0.0950	0.0341
Sleeping aid tablets	0.1542	0.1382	0.0763
Contact lens solution	0.6693	0.3163	0.1967
Contact lens solution (sensitive eyes)	0.2609	0.1724	0.1349
Eye drops & lotions	12.5682	6.6945	3.3914
Cotton balls	0.0170	0.0103	0.0060
Cotton rounds	0.0289	0.0229	0.0109
Cotton swabs	0.0072	0.0057	0.0033
Fabric bandages	0.1870	0.0883	0.0394
Flexible fabric bandages	0.0763	0.0743	0.0399
Plastic bandages	0.0846	0.0588	0.0318
Sheer bandages	0.0601	0.0474	0.0238

Alkalizing effervescents	0.1556	0.0913	0.0551
Arthritis pain remedies	0.0939	0.0625	0.0420
Eye care (remaining)	14.6699	8.3963	3.5944
Adult incontinence (large)	0.7134	0.5676	0.5331
Adult incontinence	0.2771	0.1875	0.1236
Adult incontinence (small/med)	0.6468	0.5106	0.4615
Hydrocortisones	5.0741	2.9287	1.2036
Anti-gas gelcaps	0.2069	0.1247	0.0465
Gauze pads	0.2842	0.1538	0.0770
Pantry staples			
Salt (iodized)	0.0249	0.0189	0.0139
Salt (plain)	0.0249	0.0185	0.0133
Sugar (brown)	0.0567	0.0461	0.0392
Sugar (powdered)	0.0539	0.0474	0.0413
Sugar (granulated)	0.5156	0.4753	0.4394
Baking soda	0.0543	0.0406	0.0267
Other food and drink categories			
Apple sauce	0.0629	0.0493	0.0381
Shelf-stable cranberries (jellied)	0.0785	0.0673	0.0537
Shelf-stable cranberries (whole)	0.0822	0.0678	0.0529
Canned oranges	0.0865	0.0623	0.0426
Cranberry juice	0.0447	0.0376	0.0275
Orange juice	0.0554	0.0305	0.0231
Vegetable juice	0.0623	0.0446	0.0309
Canned beans	0.0607	0.0422	0.0282
Canned corn (no salt)	0.0663	0.0423	0.0292
Canned corn	0.0599	0.0403	0.0316
Canned dark red kidney beans	0.0542	0.0430	0.0335
Canned light red kidney beans	0.0516	0.0404	0.0339
Canned peas	0.0516	0.0413	0.0336
Canned mixed vegetables	0.0628	0.0453	0.0372
Dehydrated potatoes (au gratin)	0.3037	0.2007	0.1420
Dehydrated potatoes (scalloped)	0.3110	0.2094	0.1389
Dehydrated potatoes (mashed)	0.2116	0.1204	0.0851
Canned potatoes (sliced)	0.0670	0.0469	0.0356
Canned potatoes (whole)	0.0593	0.0455	0.0326
Canned chili	0.0583	0.0420	0.0306
Shelf-stable sauerkraut	0.0620	0.0531	0.0359
Catsup	0.0661	0.0488	0.0375
Chili sauce	0.1751	0.1311	0.0816
Canned tomatoes (crushed)	0.0547	0.0415	0.0308
Canned tomatoes (diced)	0.0669	0.0451	0.0324
Canned tomatoes (whole)	0.0638	0.0443	0.0310
Tomato paste	0.1098	0.0849	0.0600
Tomato sauce	0.0557	0.0384	0.0292
Stewed tomatoes	0.0865	0.0512	0.0344

Fish & seafood & cocktail sauce	0.2567	0.1514	0.0965
Meat sauce	0.3892	0.2353	0.1312
Worcestershire sauce	0.2357	0.1334	0.0829
Cooking sauce	0.0836	0.0656	0.0424
Brown gravy mix	0.9373	0.7398	0.4316
Turkey gravy mix	1.1874	0.9559	0.5689
Chili seasoning mix	0.8063	0.4915	0.2827
Taco sauce mix	0.7125	0.4306	0.2524
Shelf-stable mushrooms	0.1612	0.1367	0.1036
Green olives (manzanilla)	0.2976	0.2668	0.1942
Green olives	0.4251	0.3110	0.1938
Black olives (sliced)	0.4418	0.3958	0.2550
Black olives (whole)	0.2454	0.2032	0.1485
Relish (pickle)	0.1273	0.1206	0.0820
Relish	0.1335	0.1087	0.0735
Sweet pickles (chip)	0.1284	0.1054	0.0664
Sweet pickles (whole)	0.1929	0.1520	0.1006
Dill pickles (baby whole)	0.1132	0.0946	0.0629
Dill pickles (chip)	0.1124	0.0883	0.0592
Dill pickles (spear)	0.1153	0.0907	0.0643
Dill pickles (whole)	0.0693	0.0615	0.0432
Salad dressing (miracle whip)	0.1081	0.0768	0.0566
Mayonnaise (jar)	0.1170	0.0781	0.0631
Mayonnaise (squeeze)	0.1706	0.1374	0.0922
Spicy brown mustard	0.1243	0.0935	0.0571
Yellow mustard	0.0817	0.0664	0.0415
Canola oil cooking sprays	0.4997	0.3078	0.1826
Olive oil cooking sprays	0.6274	0.4661	0.3008
Canola oil	0.0836	0.0701	0.0528
Corn oil	0.0858	0.0717	0.0594
Vegetable oil	0.0795	0.0608	0.0443
Olive oil (extra virgin)	0.3918	0.3119	0.2117
Olive oil (pure)	0.3377	0.3009	0.2085
Shelf-stable tuna (chunk light)	0.1588	0.1383	0.1219
Shelf-stable tuna (solid white)	0.2404	0.2292	0.1835
Refried beans	0.0647	0.0450	0.0335
Shelf-stable chili	0.0864	0.0725	0.0513
Canned ravioli	0.0714	0.0544	0.0391
Canned chicken broth	0.0668	0.0443	0.0280
Canned chicken noodle soup	0.0689	0.0538	0.0446
Canned cream of celery soup	0.1202	0.0801	0.0613
Canned cream of chicken soup	0.0952	0.0677	0.0537
Canned cream of mushroom soup	0.0909	0.0662	0.0518
Canned tomato soup	0.0691	0.0530	0.0419
Canned vegetable beef soup	0.1214	0.0833	0.0577
Bouillon	0.7238	0.4723	0.2894
Canned milk	0.1472	0.1230	0.0845
Powdered milk	1.0352	0.7892	0.5816

Brown rice	0.0832	0.0608	0.0432
White rice	0.0475	0.0408	0.0303
Instant rice	0.1407	0.1086	0.0737
Unpopped popcorn (butter)	0.1848	0.1235	0.0817
Unpopped popcorn	0.0582	0.0496	0.0326
Dry dinners (pasta)	0.1728	0.0798	0.0683
Breading products	0.1338	0.1016	0.0587
Hot cereal (apple & cinnamon)	0.2620	0.1674	0.1202
Hot cereal (maple & brown sugar)	0.2252	0.1439	0.0996
Hot cereal (old fashioned)	0.1038	0.0634	0.0431
Hot cereal (quick)	0.0992	0.0685	0.0436
Hot cereal (variety)	0.2173	0.1497	0.1249
Toaster pastries	0.1696	0.1024	0.0789
Cookies (chocolate)	0.1946	0.1514	0.1172
Cookies (chocolate chip)	0.2065	0.1648	0.1231
Cookies (peanut butter)	0.2158	0.1219	0.0945
Cookies (sugar)	0.2439	0.1606	0.1185
Cookies (vanilla)	0.2261	0.1024	0.0725
Stuffing products	0.2679	0.2022	0.1331
Ice cream cones & cups (cake)	0.0980	0.0946	0.0563
Ice cream cones & cups (sugar)	0.2017	0.1306	0.0795
Pancake mix (buttermilk)	0.0740	0.0545	0.0394
Pancake mix	0.0661	0.0568	0.0391
Salt (garlic)	0.2989	0.1956	0.1023
Salt (seasoned)	0.2014	0.1551	0.0887
Butter syrup	0.1256	0.0865	0.0649
Maple syrup	0.1310	0.1015	0.0712
Jelly	0.0814	0.0558	0.0410
Marmalade	0.1979	0.1139	0.0678
Apricot preserves	0.2008	0.1285	0.0814
Peach preserves	0.1985	0.1266	0.0897
Red raspberry preserves	0.1822	0.1301	0.0863
Strawberry preserves	0.1683	0.1014	0.0704
Peanut butter (chunky)	0.1276	0.0980	0.0807
Peanut butter (creamy)	0.1267	0.0978	0.0793
Raisins (box)	0.2250	0.1806	0.1164
Raisins (canister)	0.1524	0.1421	0.0954
Dried fruit	0.2341	0.2135	0.1518
Chocolate syrup	0.0793	0.0614	0.0434
Gelatin mix (cherry)	0.1988	0.1449	0.0976
Gelatin mix (lime)	0.2052	0.1489	0.1003
Gelatin mix (orange)	0.1970	0.1475	0.0966
Gelatin mix (strawberry)	0.1994	0.1478	0.0973
Gelatin mix (diet)	1.7148	1.1840	0.8943
Pudding mix (chocolate)	0.2173	0.1391	0.0977
Pudding mix (vanilla)	0.2544	0.1581	0.1107
Tea bags (green)	0.1007	0.0488	0.0325
Tea bags (orange pekoe black)	0.0437	0.0232	0.0153

Pepper	0.6634	0.5774	0.3476
Imitation extracts	0.3948	0.2494	0.1281
Pure extracts	2.5796	1.9763	1.1670
Chili powder	0.8651	0.6186	0.3249
Cinnamon	0.8539	0.6951	0.3493
Garlic powder	0.6464	0.5661	0.3186
Onion powder	0.8003	0.6133	0.4833
Parsley flakes	3.0282	1.2148	0.6959
Cola (bottle)	0.0259	0.0121	0.0098
Cola (can)	0.0229	0.0163	0.0152
Ginger ale	0.0238	0.0120	0.0090
Grape soda (bottle)	0.0214	0.0125	0.0095
Grape soda (can)	0.0224	0.0166	0.0152
Lemon/lime soda (bottle)	0.0254	0.0122	0.0092
Lemon/lime soda (can)	0.0237	0.0166	0.0146
Orange soda (bottle)	0.0246	0.0127	0.0086
Orange soda (can)	0.0231	0.0167	0.0161
Club soda	0.0465	0.0166	0.0125
Tonic water	0.0449	0.0173	0.0131
Root beer (bottle)	0.0277	0.0136	0.0092
Root beer (can)	0.0235	0.0165	0.0151
Bear candy	0.1872	0.1067	0.0838
Candy corn	0.0972	0.0805	0.0507
Starlight mint candy	0.1464	0.0833	0.0493
Slice candy	0.0913	0.0733	0.0503
Mini marshmallows	0.1191	0.0940	0.0615
Marshmallows	0.1202	0.0991	0.0666
Nuts	0.2650	0.2399	0.1462
Low calorie soft drinks (bottle)	0.0268	0.0119	0.0090
Low calorie soft drinks (can)	0.0233	0.0160	0.0150
Frozen peas	0.0822	0.0742	0.0532
Frozen breakfasts	0.1961	0.1406	0.0838
Frozen corn	0.1220	0.0672	0.0472
Frozen pizza	0.1908	0.1376	0.1012
Frozen beans (cut)	0.0971	0.0727	0.0515
Frozen beans (French cut)	0.0858	0.0798	0.0555
Frozen potatoes (crinkle cut)	0.0733	0.0559	0.0395
Frozen potatoes	0.0951	0.0667	0.0429
Frozen vegetables (chopped)	0.1404	0.1019	0.0620
Frozen vegetables (flop)	0.1014	0.0889	0.0590
Frozen vegetables (whole)	0.1154	0.0919	0.0611
Frozen onions (breaded)	0.2207	0.1247	0.0793
Frozen mixed vegetables (California)	0.0922	0.0919	0.0618
Frozen mixed vegetables	0.1123	0.0709	0.0502
Frozen mixed vegetables (pea/carrot)	0.0800	0.0772	0.0554
Frozen broccoli (cut)	0.1006	0.0746	0.0514
Frozen broccoli (flop)	0.1470	0.1042	0.0644
Frozen lima beans	0.1086	0.0853	0.0564

Frozen bakery bread	0.1948	0.1384	0.0956
Frozen waffles & pancakes & French toast (blueberry)	0.1674	0.1142	0.0809
Frozen waffles & pancakes & French toast (buttermilk)	0.1506	0.1149	0.0929
Frozen waffles & pancakes & French toast	0.1588	0.1179	0.0982
Frozen deep dish	0.1924	0.1609	0.1131
Frozen bakery (other)	0.1929	0.1581	0.1117
Frozen lemonade mix	0.1120	0.0816	0.0565
Frozen novelties (assorted)	0.1538	0.1168	0.0816
Vanilla/chocolate ice cream bar	0.5226	0.2369	0.1554
Vanilla/chocolate ice cream sandwich	0.3667	0.2513	0.1644
Frozen whipped toppings	0.1738	0.1318	0.0932
Mozzarella cheese (chunk)	0.3586	0.2526	0.1790
Mozzarella cheese (sliced)	0.4454	0.3750	0.2246
Cheese	0.3119	0.2627	0.1782
Colby cheese	0.2958	0.2552	0.1952
Cheddar cheese (extra sharp)	0.3427	0.2639	0.1600
Cheddar cheese (medium)	0.2595	0.2395	0.1760
Cheddar cheese (mild)	0.3088	0.2536	0.1742
Cheddar cheese (sharp)	0.3309	0.2636	0.1744
Grated cheese	0.5367	0.3670	0.2500
American cheese (slices)	0.2329	0.1919	0.1378
Swiss cheese (chunk)	0.3037	0.2996	0.2089
Swiss cheese (sliced)	0.4290	0.3747	0.2346
Specialty/imported cheese	0.5356	0.3985	0.2427
Shredded cheese (other)	0.3819	0.2680	0.1840
Shredded cheese (mild)	0.3329	0.2562	0.1760
Shredded cheese (non sharp)	0.3489	0.2642	0.1831
Shredded cheese (sharp)	0.3359	0.2617	0.1750
Toppings	0.3393	0.2439	0.1519
Cookie & brownie dough	0.1481	0.1243	0.0794
Sweet roll dough	0.1741	0.1400	0.1057
Dairy dip	0.1360	0.1145	0.0865
Blueberry yogurt	0.1259	0.0706	0.0532
Peach yogurt	0.1262	0.0705	0.0560
Raspberry yogurt	0.1019	0.0680	0.0521
Strawberry & banana yogurt	0.0959	0.0692	0.0526
Strawberry yogurt	0.1222	0.0710	0.0527
Sour cream	0.1340	0.0929	0.0613
Cottage cheese	0.1597	0.1185	0.0815
Cream cheese	0.2108	0.1637	0.1180
Cream cheese (soft)	0.2699	0.2082	0.1353
Margarine and spreads	1.7524	0.9274	0.5975
Dinner roll dough	0.2606	0.2202	0.1591
Dough products	0.1883	0.1540	0.1081
1% low fat milk (carton)	0.0449	0.0376	0.0284
2% reduced fat milk (carton)	0.0476	0.0367	0.0277

Whole milk (carton)	0.0487	0.0443	0.0334
1% low fat milk (plastic)	0.0319	0.0264	0.0202
2& reduced fat milk (plastic)	0.0335	0.0265	0.0189
Skim milk (plastic)	0.0323	0.0260	0.0196
Whole milk (plastic)	0.0350	0.0284	0.0211
Cream	0.0977	0.0673	0.0452
Bread (other)	0.1387	0.0785	0.0558
Bread (wheat)	0.1272	0.0691	0.0526
Bread (white)	0.1140	0.0557	0.0535
Hamburger buns	0.1624	0.0953	0.0882
Hot dog buns	0.1894	0.1001	0.0756
Muffins	0.2196	0.0921	0.0638
Eggs (extra large)	0.2369	0.1662	0.1127
Eggs (jumbo)	0.1917	0.1872	0.1291
Eggs (large brown)	0.2477	0.1929	0.1318
Eggs (large white)	0.1957	0.1559	0.1082

Notes: Table reports the average national-brand price  $p(1)$ , the average store-brand price  $p(0)$ , and the cost  $c$  for each comparable.

Online Appendix Table 6.2.2: Estimated model parameters by comparable

	$\mu$	$\sigma_{\text{brand}}$	$\tilde{\sigma}_{\text{retail}}$	$\lambda$
Headache remedies				
Acetaminophen gelcaps	0.0406 (0.0001)	0.0342 (0.0000)	0.0196 (0.0000)	0.7499 (0.5756)
Ibuprofen gelcaps	0.0496 (0.0001)	0.0169 (0.0002)	— —	0.6038 (0.2602)
Acetaminophen tablets	-0.0301 (0.0001)	0.0619 (0.0000)	0.0161 (0.0000)	0.5694 (0.1502)
Aspirin tablets	0.0020 (0.0001)	0.0401 (0.0000)	0.0056 (0.0000)	0.6537 (0.5760)
Ibuprofen tablets	-0.0301 (0.0001)	0.0579 (0.0000)	0.0137 (0.0000)	0.4186 (0.1353)
Naproxen sodium tablets	0.0290 (0.0001)	0.0318 (0.0000)	0.0147 (0.0000)	0.3915 (0.1537)
Other health categories				
Digestive aids (dairy)	-0.0741 (0.0040)	0.1249 (0.0006)	0.0557 (0.0001)	0.4678 (1.3588)
Multi-vitamins (with minerals)	-0.0022 (0.0000)	0.0266 (0.0000)	0.0122 (0.0000)	0.6538 (0.1220)
Antiseptics (alcohol)	-0.0317 (0.0002)	0.0535 (0.0000)	0.0192 (0.0000)	3.0000 (0.8759)
Antiseptics (hydrogen peroxide)	-0.1197 (0.0002)	0.0625 (0.0000)	0.0152 (0.0000)	3.0000 (0.7811)
Antacid tablets (famotidine max strength)	-0.0582 (0.0020)	0.1900 (0.0003)	0.0557 (0.0001)	3.0000 (1.0681)
Antacid tablets (ranitidine max strength)	-0.1201 (0.0007)	0.2172 (0.0001)	0.0993 (0.0000)	0.9978 (0.9166)
Antacid tablets (omeprazole)	0.1655 (0.0002)	0.1077 (0.0001)	0.0514 (0.0000)	0.9435 (0.5591)
Antacid tablets (ranitidine)	-0.1969 (0.0028)	0.2101 (0.0004)	0.0916 (0.0001)	0.0000 (1.3626)
Antacid liquid (bismuth)	0.1764 (0.0005)	0.1335 (0.0003)	0.0878 (0.0001)	1.8471 (1.3012)
Mineral caplets	0.0059 (0.0004)	0.0354 (0.0001)	0.0104 (0.0000)	0.6054 (1.0585)
Iron tablets	0.0039 (0.0002)	0.0650 (0.0001)	0.0357 (0.0000)	0.8250 (0.8533)
Calcium tablets	-0.0085 (0.0002)	0.0359 (0.0000)	0.0127 (0.0000)	0.5563 (0.2999)
Nasal decongestant	-2.6546 (0.0282)	6.6334 (0.0047)	2.1399 (0.0009)	3.0000 (0.8930)
Acetaminophen PM tablets	0.0092 (0.0000)	0.0591 (0.0000)	0.0320 (0.0000)	0.3759 (0.3698)
Aspirin tablets (low dose)	-0.0001 (0.0000)	0.0285 (0.0000)	0.0123 (0.0000)	0.7905 (0.2093)
Migraine tablets	0.0371 (0.0001)	0.0131 (0.0001)	0.0299 (0.0015)	3.0000 (0.9474)
Laxative caplets	-0.0182 (0.0002)	0.0745 (0.0000)	0.0483 (0.0000)	0.5034 (0.4643)
Laxative tablets	-0.0059 (0.0004)	0.1335 (0.0001)	0.0457 (0.0000)	0.0000 (0.6708)
Laxative salts	0.0530 (0.0000)	0.0252 (0.0000)	0.0165 (0.0000)	0.9240 (0.1271)
Diarrhea remedies	-0.1629	0.2501	0.1254	0.3269

	(0.0024)	(0.0004)	(0.0001)	(0.3732)
Allergy tablets (loratadine)	-0.6446 (0.0021)	0.6039 (0.0002)	0.1486 (0.0000)	0.3558 (0.2350)
Rectal medication (suppository)	0.0182 (0.0021)	0.2971 (0.0006)	0.2275 (0.0001)	3.0000 (1.1360)
Rectal medication (ointment)	0.9124 (0.0105)	2.6344 (0.0031)	1.3127 (0.0003)	3.0000 (1.0377)
Sleeping aid mini-caplets	-0.0168 (0.0001)	0.0680 (0.0000)	0.0581 (0.0000)	0.0000 (1.1881)
Sleeping aid tablets	-0.0253 (0.0001)	0.0533 (0.0000)	0.0668 (0.0000)	3.0000 (1.3537)
Contact lens solution	0.1460 (0.0021)	0.3119 (0.0006)	0.0907 (0.0001)	1.2865 (0.8305)
Contact lens solution (sensitive eyes)	0.0239 (0.0013)	0.0857 (0.0003)	0.0297 (0.0001)	0.7360 (1.2983)
Eye drops & lotions	8.3905 (0.0005)	1.6953 (0.0020)	—	0.9920 (0.1105)
Cotton balls	-0.0152 (0.0000)	0.0099 (0.0000)	0.0040 (0.0000)	0.6066 (0.4487)
Cotton rounds	-0.0203 (0.0002)	0.0153 (0.0000)	0.0116 (0.0000)	1.0280 (1.3878)
Cotton swabs	0.0022 (0.0000)	0.0015 (0.0000)	0.0327 (0.0009)	0.9152 (0.1196)
Fabric bandages	0.0770 (0.0002)	0.0833 (0.0001)	0.0371 (0.0000)	0.7343 (0.6654)
Flexible fabric bandages	-0.0030 (0.0001)	0.0205 (0.0000)	0.0737 (0.0005)	0.5546 (1.3104)
Plastic bandages	0.0365 (0.0000)	0.0193 (0.0000)	0.0871 (0.0014)	0.9530 (0.6764)
Sheer bandages	0.0214 (0.0000)	0.0117 (0.0000)	—	0.9426 (0.6325)
Alkalizing effervescents	0.0425 (0.0001)	0.0594 (0.0000)	0.0286 (0.0000)	3.0000 (0.3982)
Arthritis pain remedies	0.0178 (0.0002)	0.0315 (0.0001)	0.0167 (0.0000)	0.4231 (0.3849)
Eye care (remaining)	4.5253 (0.0168)	6.3011 (0.0065)	4.0685 (0.0006)	3.0000 (0.7799)
Adult incontinence (large)	0.0921 (0.0025)	0.1114 (0.0008)	0.0242 (0.0001)	0.4262 (1.1605)
Adult incontinence	0.1318 (0.0000)	0.0379 (0.0001)	—	0.8695 (0.7315)
Adult incontinence (small/med)	0.1198 (0.0013)	0.1002 (0.0005)	0.0342 (0.0001)	0.0000 (0.2630)
Hydrocortisones	-1.3862 (0.0084)	2.9677 (0.0015)	1.5302 (0.0003)	0.4007 (0.1948)
Anti-gas gelcaps	-0.1021 (0.0019)	0.1293 (0.0003)	0.0714 (0.0001)	0.9946 (1.2157)
Gauze pads	0.0711 (0.0004)	0.1273 (0.0001)	0.0615 (0.0000)	2.5473 (1.0240)
Pantry staples				
Salt (iodized)	0.0052 (0.0000)	0.0059 (0.0000)	0.0044 (0.0000)	0.9633 (0.2730)
Salt (plain)	0.0069 (0.0000)	0.0055 (0.0000)	0.0050 (0.0000)	0.9654 (0.6736)
Sugar (brown)	0.0004 (0.0000)	0.0122 (0.0000)	0.0058 (0.0000)	0.6260 (0.0510)

Sugar (powdered)	-0.0022 (0.0000)	0.0091 (0.0000)	0.0054 (0.0000)	0.5738 (0.1121)
Sugar (granulated)	0.0207 (0.0000)	0.0461 (0.0000)	0.0314 (0.0000)	0.6459 (0.0718)
Baking soda	0.0201 (0.0000)	0.0092 (0.0000)	— —	0.9156 (0.1518)
Other food and drink categories				
Apple sauce	0.0125 (0.0000)	0.0130 (0.0000)	0.0100 (0.0000)	0.7231 (0.0999)
Shelf-stable cranberries (jellied)	0.0153 (0.0000)	0.0098 (0.0000)	0.0326 (0.0001)	1.0467 (0.2335)
Shelf-stable cranberries (whole)	0.0194 (0.0000)	0.0116 (0.0000)	0.0269 (0.0001)	2.1154 (0.7404)
Canned oranges	0.0251 (0.0000)	0.0214 (0.0000)	0.0181 (0.0000)	0.9792 (0.2236)
Cranberry juice	0.0093 (0.0000)	0.0074 (0.0000)	0.0205 (0.0000)	0.8548 (0.1876)
Orange juice	0.0254 (0.0000)	0.0001 (0.0000)	— —	0.9951 (0.6168)
Vegetable juice	0.0244 (0.0000)	0.0111 (0.0000)	0.0238 (0.0002)	1.4769 (0.8219)
Canned beans	0.0209 (0.0000)	0.0150 (0.0000)	0.0131 (0.0000)	1.0079 (0.2449)
Canned corn (no salt)	0.0120 (0.0000)	0.0233 (0.0000)	0.0104 (0.0000)	0.9223 (0.2635)
Canned corn	0.0196 (0.0000)	0.0141 (0.0000)	0.0064 (0.0000)	0.9446 (0.1030)
Canned dark red kidney beans	0.0048 (0.0000)	0.0129 (0.0000)	0.0082 (0.0000)	0.8101 (0.2824)
Canned light red kidney beans	0.0074 (0.0000)	0.0105 (0.0000)	0.0052 (0.0000)	1.3168 (0.3873)
Canned peas	0.0132 (0.0000)	0.0072 (0.0000)	0.0088 (0.0000)	0.8588 (0.0766)
Canned mixed vegetables	0.0095 (0.0000)	0.0160 (0.0000)	0.0062 (0.0000)	2.2799 (1.1219)
Dehydrated potatoes (au gratin)	0.1255 (0.0000)	0.0675 (0.0000)	0.0497 (0.0000)	0.9203 (0.1747)
Dehydrated potatoes (scalloped)	0.1356 (0.0000)	0.0636 (0.0000)	0.0866 (0.0002)	2.0681 (0.9062)
Dehydrated potatoes (mashed)	0.1244 (0.0000)	0.0359 (0.0000)	0.0340 (0.0000)	1.2883 (0.1063)
Canned potatoes (sliced)	0.0004 (0.0000)	0.0222 (0.0000)	0.0094 (0.0000)	0.5111 (0.9350)
Canned potatoes (whole)	0.0004 (0.0000)	0.0180 (0.0000)	0.0114 (0.0000)	1.0260 (0.5974)
Canned chili	0.0180 (0.0000)	0.0130 (0.0000)	0.0100 (0.0000)	1.0016 (0.1751)
Shelf-stable sauerkraut	0.0056 (0.0000)	0.0146 (0.0000)	0.0202 (0.0000)	0.5488 (0.1276)
Catsup	0.0251 (0.0000)	0.0069 (0.0000)	— —	0.9395 (0.0888)
Chili sauce	0.0480 (0.0002)	0.0447 (0.0001)	0.0561 (0.0002)	0.4203 (0.2540)
Canned tomatoes (crushed)	0.0120 (0.0000)	0.0125 (0.0000)	0.0096 (0.0000)	0.7026 (0.7919)
Canned tomatoes (diced)	0.0221 (0.0000)	0.0171 (0.0000)	0.0100 (0.0000)	0.8400 (0.0000)

	(0.0000)	(0.0000)	(0.0000)	(0.0650)
Canned tomatoes (whole)	0.0190	0.0167	0.0112	0.8474
	(0.0000)	(0.0000)	(0.0000)	(0.8935)
Tomato paste	0.0183	0.0278	0.0231	0.9494
	(0.0000)	(0.0000)	(0.0000)	(0.5242)
Tomato sauce	0.0155	0.0141	0.0071	0.9063
	(0.0000)	(0.0000)	(0.0000)	(0.1166)
Stewed tomatoes	0.0270	0.0297	0.0127	0.7939
	(0.0001)	(0.0000)	(0.0000)	(0.1920)
Fish & seafood & cocktail sauce	0.0354	0.1056	0.0439	3.0000
	(0.0002)	(0.0001)	(0.0000)	(0.4766)
Meat sauce	0.2236	0.0443	—	0.8992
	(0.0000)	(0.0000)	—	(0.0937)
Worcestershire sauce	0.1343	0.0546	0.0445	0.9088
	(0.0000)	(0.0000)	(0.0000)	(0.2165)
Cooking sauce	-0.0126	0.0302	0.0214	0.4542
	(0.0000)	(0.0000)	(0.0000)	(0.3089)
Brown gravy mix	0.2359	0.2321	0.5023	3.0000
	(0.0005)	(0.0003)	(0.0022)	(0.7799)
Turkey gravy mix	0.1861	0.3305	0.4547	0.7487
	(0.0005)	(0.0002)	(0.0004)	(0.5648)
Chili seasoning mix	0.3605	0.2365	0.1828	1.4843
	(0.0003)	(0.0002)	(0.0001)	(0.7833)
Taco sauce mix	0.3885	0.1530	0.2665	0.9986
	(0.0001)	(0.0001)	(0.0007)	(0.1891)
Shelf-stable mushrooms	-0.0237	0.0433	0.0307	0.9663
	(0.0000)	(0.0000)	(0.0000)	(0.2682)
Green olives (manzanilla)	0.0034	0.0629	0.0806	0.4716
	(0.0001)	(0.0000)	(0.0000)	(0.1831)
Green olives	-0.0028	0.1568	0.1047	3.0000
	(0.0002)	(0.0001)	(0.0000)	(1.1485)
Black olives (sliced)	-0.1018	0.1389	0.1415	3.0000
	(0.0002)	(0.0000)	(0.0000)	(0.9959)
Black olives (whole)	-0.0049	0.0652	0.0507	0.8642
	(0.0000)	(0.0000)	(0.0000)	(0.2334)
Relish (pickle)	0.0129	0.0190	—	0.4115
	(0.0000)	(0.0000)	—	(0.2263)
Relish	0.0054	0.0376	0.0339	1.1235
	(0.0000)	(0.0000)	(0.0000)	(0.6200)
Sweet pickles (chip)	0.0282	0.0281	0.0734	0.7394
	(0.0000)	(0.0000)	(0.0001)	(0.1480)
Sweet pickles (whole)	0.0528	0.0391	0.0899	0.5499
	(0.0000)	(0.0000)	(0.0003)	(0.4352)
Dill pickles (baby whole)	0.0322	0.0132	—	0.5539
	(0.0000)	(0.0000)	—	(0.1442)
Dill pickles (chip)	0.0376	0.0161	—	0.7975
	(0.0000)	(0.0000)	—	(0.1674)
Dill pickles (spear)	0.0384	0.0133	—	1.2378
	(0.0000)	(0.0000)	—	(0.7815)
Dill pickles (whole)	0.0147	0.0041	—	0.8287
	(0.0000)	(0.0000)	—	(0.3689)
Salad dressing (miracle whip)	0.0450	0.0083	—	0.8429
	(0.0000)	(0.0000)	—	(0.0911)
Mayonnaise (jar)	0.0536	0.0097	—	1.0002
	(0.0000)	(0.0000)	—	(0.0546)
Mayonnaise (squeeze)	0.0541	0.0129	—	0.8496

	(0.0000)	(0.0000)	—	(0.3199)
Spicy brown mustard	0.0417	0.0268	0.0789	0.8542
	(0.0000)	(0.0000)	(0.0003)	(0.3269)
Yellow mustard	-0.0461	0.0344	0.0238	1.9667
	(0.0001)	(0.0000)	(0.0000)	(1.0316)
Canola oil cooking sprays	0.1804	0.1641	0.1025	0.7430
	(0.0001)	(0.0001)	(0.0000)	(0.1689)
Olive oil cooking sprays	0.1170	0.1830	0.1536	0.7620
	(0.0002)	(0.0001)	(0.0000)	(0.4446)
Canola oil	0.0122	0.0161	0.0184	0.7814
	(0.0000)	(0.0000)	(0.0000)	(0.2956)
Corn oil	0.0185	0.0105	0.0165	1.5751
	(0.0000)	(0.0000)	(0.0001)	(0.8892)
Vegetable oil	0.0228	0.0153	0.0185	0.9973
	(0.0000)	(0.0000)	(0.0000)	(0.1338)
Olive oil (extra virgin)	0.1120	0.0696	0.3343	0.9229
	(0.0001)	(0.0001)	(0.0036)	(0.4271)
Olive oil (pure)	0.0385	0.0637	0.1718	0.6026
	(0.0001)	(0.0000)	(0.0005)	(0.3755)
Shelf-stable tuna (chunk light)	0.0289	0.0124	0.0447	0.9959
	(0.0000)	(0.0000)	(0.0002)	(0.1231)
Shelf-stable tuna (solid white)	0.0267	0.0146	—	0.5332
	(0.0000)	(0.0000)	—	(0.2200)
Refried beans	0.0252	0.0121	0.0108	0.9801
	(0.0000)	(0.0000)	(0.0000)	(0.2198)
Shelf-stable chili	0.0236	0.0080	—	1.1539
	(0.0000)	(0.0000)	—	(0.8874)
Canned ravioli	0.0260	0.0068	—	0.8538
	(0.0000)	(0.0000)	—	(0.0930)
Canned chicken broth	0.0112	0.0239	0.0137	0.5888
	(0.0000)	(0.0000)	(0.0000)	(0.0931)
Canned chicken noodle soup	0.0218	0.0058	—	1.0151
	(0.0000)	(0.0000)	—	(0.1248)
Canned cream of celery soup	0.0369	0.0310	0.0138	0.6574
	(0.0000)	(0.0000)	(0.0000)	(0.1381)
Canned cream of chicken soup	0.0331	0.0175	0.0109	0.8228
	(0.0000)	(0.0000)	(0.0000)	(0.0565)
Canned cream of mushroom soup	0.0314	0.0154	0.0132	0.9725
	(0.0000)	(0.0000)	(0.0000)	(0.0946)
Canned tomato soup	0.0235	0.0071	—	0.7583
	(0.0000)	(0.0000)	—	(0.0774)
Canned vegetable beef soup	0.0547	0.0183	1.2345	3.0000
	(0.0000)	(0.0000)	(0.3885)	(0.5305)
Bouillon	0.2466	0.2197	0.1572	1.2565
	(0.0006)	(0.0003)	(0.0001)	(0.8345)
Canned milk	0.0241	0.0314	0.0497	1.2345
	(0.0000)	(0.0000)	(0.0000)	(0.5257)
Powdered milk	-0.3544	0.3770	0.1903	2.6674
	(0.0021)	(0.0003)	(0.0001)	(1.2629)
Brown rice	0.0053	0.0263	0.0150	3.0000
	(0.0000)	(0.0000)	(0.0000)	(0.9394)
White rice	0.0069	0.0085	0.0137	0.8421
	(0.0000)	(0.0000)	(0.0000)	(0.1786)
Instant rice	0.0372	0.0307	0.0415	0.8115
	(0.0000)	(0.0000)	(0.0000)	(0.2520)
Unpopped popcorn (butter)	0.0889	0.0170	—	1.0197

	(0.0000)	(0.0000)	—	(0.0499)
Unpopped popcorn	0.0001	0.0161	0.0176	1.0194
	(0.0000)	(0.0000)	(0.0000)	(0.8194)
Dry dinners (pasta)	0.1062	0.0445	0.0057	0.8861
	(0.0000)	(0.0000)	(0.0000)	(0.1356)
Breading products	0.0132	0.0452	0.0415	1.1321
	(0.0001)	(0.0000)	(0.0000)	(0.7258)
Hot cereal (apple & cinnamon)	0.0909	0.0728	0.0355	1.8404
	(0.0002)	(0.0001)	(0.0000)	(1.2626)
Hot cereal (maple & brown sugar)	0.0979	0.0530	0.0360	0.8517
	(0.0000)	(0.0000)	(0.0000)	(0.5872)
Hot cereal (old fashioned)	0.0500	0.0245	0.0162	1.6284
	(0.0000)	(0.0000)	(0.0000)	(0.7465)
Hot cereal (quick)	0.0365	0.0246	0.0253	1.1234
	(0.0000)	(0.0000)	(0.0000)	(0.5204)
Hot cereal (variety)	0.0678	0.0461	0.0169	1.4266
	(0.0001)	(0.0000)	(0.0000)	(0.8394)
Toaster pastries	-0.0728	0.0778	0.0211	0.9512
	(0.0001)	(0.0000)	(0.0000)	(0.8471)
Cookies (chocolate)	0.0636	0.0123	—	0.8876
	(0.0000)	(0.0000)	—	(0.0610)
Cookies (chocolate chip)	0.0648	0.0194	—	1.7455
	(0.0000)	(0.0000)	—	(0.7923)
Cookies (peanut butter)	0.1244	0.0369	0.0173	0.9712
	(0.0000)	(0.0001)	(0.0000)	(0.2138)
Cookies (sugar)	0.0679	0.0696	0.0319	2.2643
	(0.0000)	(0.0000)	(0.0000)	(0.8274)
Cookies (vanilla)	0.1342	0.0711	0.0179	0.9865
	(0.0000)	(0.0000)	(0.0000)	(0.1348)
Stuffing products	0.0995	0.0412	—	0.7251
	(0.0000)	(0.0000)	—	(0.1029)
Ice cream cones & cups (cake)	0.0058	0.0196	—	2.9520
	(0.0000)	(0.0000)	—	(1.0006)
Ice cream cones & cups (sugar)	0.0556	0.0680	0.0426	0.8579
	(0.0002)	(0.0001)	(0.0000)	(0.2740)
Pancake mix (buttermilk)	0.0283	0.0104	—	1.0776
	(0.0000)	(0.0000)	—	(0.5013)
Pancake mix	0.0093	0.0135	0.0258	0.2430
	(0.0002)	(0.0001)	(0.0006)	(0.7143)
Salt (garlic)	0.1559	0.0535	—	2.0629
	(0.0000)	(0.0001)	—	(0.8391)
Salt (seasoned)	0.0748	0.0156	—	0.9903
	(0.0000)	(0.0000)	—	(0.7989)
Butter syrup	0.0332	0.0331	0.0167	1.0078
	(0.0000)	(0.0000)	(0.0000)	(0.3366)
Maple syrup	0.0446	0.0179	—	0.8891
	(0.0000)	(0.0000)	—	(0.1122)
Jelly	0.0209	0.0223	0.0116	0.8583
	(0.0000)	(0.0000)	(0.0000)	(0.3300)
Marmalade	0.0877	0.0631	0.0358	1.5783
	(0.0001)	(0.0000)	(0.0000)	(0.7489)
Apricot preserves	0.0703	0.0607	0.0388	0.4350
	(0.0001)	(0.0000)	(0.0000)	(0.4642)
Peach preserves	0.0788	0.0507	0.0281	0.7851
	(0.0001)	(0.0001)	(0.0000)	(1.0196)
Red raspberry preserves	0.0357	0.0550	0.0380	0.7816

	(0.0002)	(0.0001)	(0.0000)	(0.8168)
Strawberry preserves	0.0260	0.0641	0.0243	0.7075
	(0.0001)	(0.0000)	(0.0000)	(0.1493)
Peanut butter (chunky)	0.0364	0.0194	0.0150	0.8815
	(0.0000)	(0.0000)	(0.0000)	(0.1328)
Peanut butter (creamy)	0.0408	0.0144	0.0523	0.8976
	(0.0000)	(0.0000)	(0.0003)	(0.0725)
Raisins (box)	0.0248	0.0627	0.0654	0.4571
	(0.0002)	(0.0001)	(0.0001)	(0.4618)
Raisins (canister)	0.0140	0.0265	0.3842	0.6947
	(0.0000)	(0.0000)	(0.0095)	(0.8666)
Dried fruit	0.0413	0.0251	—	0.9701
	(0.0000)	(0.0000)	—	(0.5833)
Chocolate syrup	0.0276	0.0094	—	1.1388
	(0.0000)	(0.0000)	—	(0.1960)
Gelatin mix (cherry)	0.0772	0.0338	0.2273	0.4949
	(0.0001)	(0.0002)	(0.0211)	(0.1054)
Gelatin mix (lime)	0.0807	0.0347	0.2483	0.5624
	(0.0001)	(0.0002)	(0.0328)	(0.3665)
Gelatin mix (orange)	0.0703	0.0360	0.1936	0.5091
	(0.0002)	(0.0002)	(0.0187)	(0.2688)
Gelatin mix (strawberry)	0.0740	0.0354	0.2464	0.5042
	(0.0001)	(0.0001)	(0.0134)	(0.1026)
Gelatin mix (diet)	0.5966	0.3743	0.2282	0.6774
	(0.0007)	(0.0004)	(0.0001)	(0.5784)
Pudding mix (chocolate)	0.1078	0.0372	0.0552	0.9124
	(0.0000)	(0.0001)	(0.0003)	(0.5814)
Pudding mix (vanilla)	0.1294	0.0481	0.0459	1.1421
	(0.0000)	(0.0000)	(0.0000)	(0.1855)
Tea bags (green)	0.0601	0.0294	0.0103	3.0000
	(0.0000)	(0.0000)	(0.0000)	(0.8026)
Tea bags (orange pekoe black)	0.0170	0.0158	0.0057	0.6343
	(0.0001)	(0.0000)	(0.0000)	(0.1886)
Pepper	0.0992	0.1511	0.5330	3.0000
	(0.0001)	(0.0001)	(0.0015)	(1.0080)
Imitation extracts	0.1272	0.1419	0.1076	1.1375
	(0.0002)	(0.0001)	(0.0000)	(0.4484)
Pure extracts	0.7343	0.6335	1.2281	0.4212
	(0.0011)	(0.0007)	(0.0043)	(0.1072)
Chili powder	0.3112	0.2328	0.4484	2.0674
	(0.0002)	(0.0002)	(0.0010)	(0.6545)
Cinnamon	0.2519	0.1925	—	1.0086
	(0.0001)	(0.0001)	—	(0.5668)
Garlic powder	0.1646	0.0965	—	1.4086
	(0.0000)	(0.0001)	—	(0.8750)
Onion powder	0.2639	0.1009	0.3389	1.0932
	(0.0001)	(0.0001)	(0.0025)	(0.3333)
Parsley flakes	2.0497	1.0334	0.3192	1.2053
	(0.0013)	(0.0008)	(0.0001)	(0.6885)
Cola (bottle)	0.0173	0.0016	—	1.0061
	(0.0000)	(0.0000)	—	(0.0667)
Cola (can)	0.0081	0.0006	—	1.0233
	(0.0000)	(0.0000)	—	(0.0497)
Ginger ale	0.0153	0.0049	0.0016	0.9524
	(0.0000)	(0.0000)	(0.0000)	(0.1996)
Grape soda (bottle)	0.0080	0.0063	0.0021	1.1195

	(0.0000)	(0.0000)	(0.0000)	(0.9846)
Grape soda (can)	0.0056	0.0037	0.0009	1.1211
	(0.0000)	(0.0000)	(0.0000)	(0.9224)
Lemon/lime soda (bottle)	0.0176	0.0028	0.0042	0.8925
	(0.0000)	(0.0000)	(0.0001)	(0.0831)
Lemon/lime soda (can)	0.0093	0.0012	—	1.0309
	(0.0000)	(0.0000)	—	(0.4803)
Orange soda (bottle)	0.0159	0.0049	0.0031	1.2539
	(0.0000)	(0.0000)	(0.0000)	(0.5231)
Orange soda (can)	0.0081	0.0021	0.0002	0.9232
	(0.0000)	(0.0000)	(0.0000)	(0.1040)
Club soda	0.0016	0.0255	0.0032	0.8990
	(0.0000)	(0.0000)	(0.0000)	(1.0836)
Tonic water	0.0254	0.0169	0.0026	1.5440
	(0.0000)	(0.0000)	(0.0000)	(0.8471)
Root beer (bottle)	0.0187	0.0058	0.0029	1.2991
	(0.0000)	(0.0000)	(0.0000)	(0.2811)
Root beer (can)	0.0093	0.0024	0.0006	1.1473
	(0.0000)	(0.0000)	(0.0000)	(0.2193)
Bear candy	0.0919	0.0452	0.0141	3.0000
	(0.0000)	(0.0000)	(0.0000)	(0.6108)
Candy corn	0.0296	0.0109	—	0.8635
	(0.0000)	(0.0000)	—	(0.1277)
Starlight mint candy	0.0782	0.0393	0.0284	1.0808
	(0.0000)	(0.0000)	(0.0000)	(0.2284)
Slice candy	-0.0044	0.0282	0.0211	3.0000
	(0.0002)	(0.0000)	(0.0000)	(0.6239)
Mini marshmallows	0.0131	0.0339	0.0315	0.9907
	(0.0000)	(0.0000)	(0.0000)	(0.4942)
Marshmallows	0.0128	0.0304	0.0344	0.5831
	(0.0000)	(0.0000)	(0.0000)	(0.1167)
Nuts	0.0576	0.0216	—	1.6940
	(0.0000)	(0.0001)	—	(1.1958)
Low calorie soft drinks (bottle)	0.0194	0.0023	—	1.8837
	(0.0000)	(0.0000)	—	(0.8587)
Low calorie soft drinks (can)	0.0090	0.0008	—	0.9775
	(0.0000)	(0.0000)	—	(0.1319)
Frozen peas	-0.0109	0.0207	0.0211	3.0000
	(0.0000)	(0.0000)	(0.0000)	(1.0890)
Frozen breakfasts	0.0541	0.0568	0.0568	1.1674
	(0.0000)	(0.0000)	(0.0000)	(0.6363)
Frozen corn	0.0142	0.0514	0.0156	0.5429
	(0.0001)	(0.0000)	(0.0000)	(0.3692)
Frozen pizza	0.0758	0.0124	—	1.0091
	(0.0000)	(0.0000)	—	(0.0520)
Frozen beans (cut)	0.0108	0.0282	0.0184	0.4005
	(0.0000)	(0.0000)	(0.0000)	(0.1274)
Frozen beans (French cut)	-0.0092	0.0206	0.0266	0.5972
	(0.0001)	(0.0000)	(0.0000)	(0.6856)
Frozen potatoes (crinkle cut)	-0.0311	0.0286	0.0152	0.6103
	(0.0000)	(0.0000)	(0.0000)	(0.2101)
Frozen potatoes	0.0258	0.0274	0.0213	1.5491
	(0.0000)	(0.0000)	(0.0000)	(0.7769)
Frozen vegetables (chopped)	0.0173	0.0478	0.0361	0.4604
	(0.0001)	(0.0000)	(0.0000)	(0.4884)
Frozen vegetables (flop)	-0.0145	0.0301	0.0298	0.3942

	(0.0001)	(0.0000)	(0.0000)	(1.1578)
Frozen vegetables (whole)	-0.0070	0.0376	0.0285	0.9220
	(0.0000)	(0.0000)	(0.0000)	(0.7477)
Frozen onions (breaded)	0.0898	0.0737	0.0336	0.6599
	(0.0002)	(0.0001)	(0.0000)	(0.2179)
Frozen mixed vegetables (California)	-0.0100	0.0192	0.0449	3.0000
	(0.0001)	(0.0000)	(0.0001)	(0.0000)
Frozen mixed vegetables	0.0199	0.0393	0.0163	3.0000
	(0.0001)	(0.0000)	(0.0000)	(0.6558)
Frozen mixed vegetables (pea/carrot)	-0.0441	0.0220	0.0217	3.0000
	(0.0000)	(0.0000)	(0.0000)	(1.1932)
Frozen broccoli (cut)	0.0126	0.0300	0.0204	0.7487
	(0.0000)	(0.0000)	(0.0000)	(0.2343)
Frozen broccoli (floret)	0.0445	0.0404	0.0390	0.6222
	(0.0000)	(0.0000)	(0.0000)	(0.5520)
Frozen lima beans	0.0083	0.0321	0.0272	2.4623
	(0.0000)	(0.0000)	(0.0000)	(0.9958)
Frozen bakery bread	0.0798	0.0326	0.1196	0.7314
	(0.0001)	(0.0001)	(0.0051)	(0.8110)
Frozen waffles & pancakes & French toast (blueberry)	0.0683	0.0337	0.0328	0.8868
	(0.0000)	(0.0000)	(0.0000)	(0.5450)
Frozen waffles & pancakes & French toast (buttermilk)	0.0452	0.0230	0.0208	0.9390
	(0.0000)	(0.0000)	(0.0000)	(0.2358)
Frozen waffles & pancakes & French toast	0.0559	0.0189	0.0216	0.9553
	(0.0000)	(0.0000)	(0.0000)	(0.2768)
Frozen deep dish	-0.0190	0.0563	0.0449	0.6403
	(0.0002)	(0.0000)	(0.0000)	(0.8519)
Frozen bakery (other)	-0.1255	0.0730	0.0445	3.0000
	(0.0001)	(0.0000)	(0.0000)	(0.6958)
Frozen lemonade mix	0.0034	0.0374	0.0216	1.0373
	(0.0000)	(0.0000)	(0.0000)	(0.7340)
Frozen novelties (assorted)	0.0286	0.0398	0.0322	1.1679
	(0.0002)	(0.0001)	(0.0000)	(0.7198)
Vanilla/chocolate ice cream bar	0.3144	0.1679	0.0506	1.2265
	(0.0001)	(0.0000)	(0.0000)	(0.1814)
Vanilla/chocolate ice cream sandwich	-0.0628	0.1539	0.0764	0.8038
	(0.0003)	(0.0001)	(0.0000)	(0.5514)
Frozen whipped toppings	0.0592	0.0284	0.1122	0.9507
	(0.0000)	(0.0000)	(0.0004)	(0.1383)
Mozzarella cheese (chunk)	0.1056	0.0900	0.0622	0.9654
	(0.0000)	(0.0000)	(0.0000)	(0.1953)
Mozzarella cheese (sliced)	-0.0707	0.1569	0.1479	3.0000
	(0.0004)	(0.0001)	(0.0000)	(1.2581)
Cheese	0.0087	0.0828	0.0857	1.4162
	(0.0000)	(0.0000)	(0.0000)	(0.7623)
Colby cheese	-0.0501	0.0769	0.0561	0.5809
	(0.0003)	(0.0001)	(0.0000)	(0.9643)
Cheddar cheese (extra sharp)	0.1081	0.0734	0.2727	1.1653
	(0.0001)	(0.0000)	(0.0015)	(0.3190)
Cheddar cheese (medium)	0.0262	0.0384	0.2736	0.5795
	(0.0000)	(0.0000)	(0.0013)	(0.3965)
Cheddar cheese (mild)	-0.0292	0.0953	0.0743	0.6125
	(0.0001)	(0.0000)	(0.0000)	(1.0587)
Cheddar cheese (sharp)	0.0365	0.0913	0.0877	0.6714

	(0.0001)	(0.0000)	(0.0000)	(0.1664)
Grated cheese	0.1979	0.1276	0.1059	0.9207
	(0.0001)	(0.0000)	(0.0000)	(0.1204)
American cheese (slices)	0.0628	0.0319	—	0.6824
	(0.0000)	(0.0000)	—	(0.1574)
Swiss cheese (chunk)	-0.1306	0.0800	0.0930	0.0289
	(0.0003)	(0.0000)	(0.0000)	(0.6642)
Swiss cheese (sliced)	-0.0883	0.1422	0.1394	3.0000
	(0.0002)	(0.0000)	(0.0000)	(0.8128)
Specialty/imported cheese	-0.0714	0.2129	0.1414	3.0000
	(0.0012)	(0.0003)	(0.0000)	(0.7038)
Shredded cheese (other)	0.0268	0.1307	0.0709	0.8438
	(0.0001)	(0.0000)	(0.0000)	(0.1038)
Shredded cheese (mild)	-0.0361	0.1143	0.0721	0.7050
	(0.0000)	(0.0000)	(0.0000)	(0.0881)
Shredded cheese (non sharp)	0.0540	0.0960	0.0729	0.6948
	(0.0000)	(0.0000)	(0.0000)	(0.0834)
Shredded cheese (sharp)	0.0258	0.0996	0.0803	0.7380
	(0.0001)	(0.0000)	(0.0000)	(0.0945)
Toppings	0.1234	0.0768	0.1285	0.9969
	(0.0001)	(0.0000)	(0.0002)	(0.3978)
Cookie & brownie dough	0.0424	0.0117	—	0.8783
	(0.0000)	(0.0000)	—	(0.2254)
Sweet roll dough	0.0519	0.0198	—	0.9306
	(0.0000)	(0.0000)	—	(0.2031)
Dairy dip	0.0353	0.0116	—	0.8028
	(0.0000)	(0.0000)	—	(0.0993)
Blueberry yogurt	0.0500	0.0389	0.0117	1.0301
	(0.0000)	(0.0000)	(0.0000)	(0.5062)
Peach yogurt	0.0437	0.0403	0.0098	1.2240
	(0.0000)	(0.0000)	(0.0000)	(0.6303)
Raspberry yogurt	0.0166	0.0316	0.0123	0.7743
	(0.0000)	(0.0000)	(0.0000)	(0.6453)
Strawberry & banana yogurt	0.0188	0.0251	0.0133	1.9387
	(0.0000)	(0.0000)	(0.0000)	(0.8355)
Strawberry yogurt	0.0515	0.0347	0.0124	1.5523
	(0.0000)	(0.0000)	(0.0000)	(0.5822)
Sour cream	0.0460	0.0337	0.0296	0.8411
	(0.0000)	(0.0000)	(0.0000)	(0.0780)
Cottage cheese	-0.0205	0.0581	0.0329	0.7215
	(0.0001)	(0.0000)	(0.0000)	(0.2292)
Cream cheese	0.0519	0.0438	0.0481	0.7523
	(0.0000)	(0.0000)	(0.0000)	(0.1119)
Cream cheese (soft)	0.0761	0.0591	0.1040	3.0000
	(0.0001)	(0.0000)	(0.0003)	(1.0064)
Margarine and spreads	1.1083	0.1474	—	1.0349
	(0.0000)	(0.0001)	—	(0.0297)
Dinner roll dough	0.0670	0.0289	—	1.0508
	(0.0000)	(0.0000)	—	(0.2379)
Dough products	0.0485	0.0311	0.1866	0.5550
	(0.0000)	(0.0000)	(0.0015)	(0.1131)
1% low fat milk (carton)	-0.0022	0.0115	0.0085	1.1985
	(0.0000)	(0.0000)	(0.0000)	(0.7151)
2% reduced fat milk (carton)	-0.0082	0.0154	0.0080	0.8651
	(0.0000)	(0.0000)	(0.0000)	(0.3189)
Whole milk (carton)	0.0022	0.0086	0.0135	0.6919

	(0.0000)	(0.0000)	(0.0000)	(0.8066)
1% low fat milk (plastic)	-0.0072 (0.0000)	0.0093 (0.0000)	0.0057 (0.0000)	0.9141 (0.3964)
2& reduced fat milk (plastic)	-0.0078 (0.0000)	0.0114 (0.0000)	0.0069 (0.0000)	0.8015 (0.1630)
Skim milk (plastic)	-0.0077 (0.0000)	0.0101 (0.0000)	0.0059 (0.0000)	1.2519 (0.7929)
Whole milk (plastic)	-0.0081 (0.0000)	0.0110 (0.0000)	0.0066 (0.0000)	2.5474 (0.7842)
Cream	-0.0206 (0.0001)	0.0408 (0.0000)	0.0195 (0.0000)	0.6600 (0.2063)
Bread (other)	0.0797 (0.0000)	0.0272 (0.0000)	0.0169 (0.0000)	0.8817 (0.1700)
Bread (wheat)	0.0661 (0.0000)	0.0327 (0.0000)	0.0102 (0.0000)	0.8692 (0.1074)
Bread (white)	0.0452 (0.0000)	0.0358 (0.0000)	0.0013 (0.0000)	0.9898 (0.0977)
Hamburger buns	0.0358 (0.0001)	0.0486 (0.0000)	0.0049 (0.0000)	0.8885 (0.1406)
Hot dog buns	0.0343 (0.0001)	0.0765 (0.0000)	0.0184 (0.0000)	1.0184 (0.2630)
Muffins	0.0576 (0.0001)	0.1033 (0.0000)	0.0207 (0.0000)	0.8701 (0.1285)
Eggs (extra large)	0.0778 (0.0000)	0.0583 (0.0000)	0.0490 (0.0000)	1.0609 (0.1099)
Eggs (jumbo)	0.0036 (0.0000)	0.0318 (0.0000)	0.2930 (0.0013)	1.3887 (0.9169)
Eggs (large brown)	0.0037 (0.0001)	0.0766 (0.0000)	0.0553 (0.0000)	1.6927 (0.7868)
Eggs (large white)	0.0119 (0.0000)	0.0547 (0.0000)	0.0444 (0.0000)	0.9167 (0.0387)

Notes: Table reports estimated parameters for each comparable. When  $\tilde{\sigma}_r$  is missing this indicates that no value of  $\tilde{\sigma}_r > 0$  fits the data. Standard errors in parentheses come from 20 bootstrap replications in which we draw households with replacement from our panel and re-estimate all parameters.

Online Appendix Table 6.2.3: Exceptional cases in estimation

	Headache remedies	Other health categories	Pantry staples	Other food categories
Imputed retail margins	0 (0.000)	0 (0.000)	0 (0.000)	13 (0.103)
Impute $\lambda = 0$	0 (0.000)	4 (0.099)	0 (0.000)	0 (0.000)
Impute $\lambda = \bar{\lambda}$	0 (0.000)	10 (0.102)	0 (0.000)	19 (0.019)
$\tilde{\sigma}_{\text{retail}}$ is undefined	1 (0.175)	3 (0.165)	1 (0.075)	43 (0.351)

Notes: Table tabulates the number of exceptional comparables discussed in the appendix by category. The “Imputed retail margins” row presents the number of comparables for which the retail margin is not observed or estimated to be negative. The “Impute  $\lambda = 0$ ” row presents the number of comparables where our linear probability model implies that  $S_\lambda \geq 1$ . The “Impute  $\lambda = \bar{\lambda}$ ” row presents the number of comparables where our linear probability model implies that  $S_\lambda \leq 0$ , or no value of  $\lambda \in [0, \bar{\lambda}]$  explains  $S_\lambda$  (where  $\bar{\lambda} = 3$  is the upper bound we impose). The “ $\tilde{\sigma}_{\text{retail}}$  is undefined” row presents the number of comparables where no value of  $\sigma_{\text{retail}}$  fits the data. The shares of expenditure of these exceptional comparables in the category are presented in parentheses.

Online Appendix Table 6.3.1: Health categories purchases under  $\lambda = 0$

	<i>Headache remedies (6)</i>			<i>Other health categories (44)</i>		
	Baseline	Informed consumers at baseline prices	Informed consumers at equilibrium prices	Baseline	Informed consumers at baseline prices	Informed consumers at equilibrium prices
National-brand quantity share	0.258	0	0.972	0.435	0	0.835
National-brand price (relative to cost)	6.036	—	1.033	3.639	—	1.367
Store-brand price (relative to cost)	2.047	—	1.014	1.949	—	1.140
Change as a share of baseline expenditure:						
Manufacturer profit	-0.374	-0.374	-0.374	-0.325	-0.325	-0.325
Retailer profit	0.109	-0.182	-0.182	0.126	0.126	-0.153
Consumer expenditure	-0.264	-0.556	-0.556	-0.200	-0.200	-0.479
Consumer surplus	0.265	0.557	0.557	0.200	0.200	0.479
Total surplus	0	0	0	0	0	0
Baseline consumer expenditure (\$bn / year):	\$2.88			\$8.94		

Notes: Table parallels table 6 but assumes that  $\lambda = 0$  instead of the estimated values. (Standard errors are omitted because we do not estimate  $\lambda$ .) The two panels report results for headache remedy comparables and other health comparables, respectively, with the number of comparables in parentheses. The “baseline” column reports average prices relative to estimated manufacturing costs and repeats summary information from table 1. Total expenditure are estimated 2008 totals for all grocery, drug, and mass merchandise stores in the US. Headache remedy relative prices and national-brand shares are averaged over comparable product groups weighting by equivalent units sold, while other health category relative prices and national-brand shares are averaged over comparable product groups weighting by expenditure. The “informed consumers at baseline prices” counterfactual computes the effect of all households choosing according to true rather than perceived brand preference, holding prices constant at baseline levels. The “informed consumers at equilibrium prices” counterfactual further allows prices to adjust to reflect the change in consumer demand. Note that equilibrium prices do not exactly equal to marginal cost due to the comparables for which we cannot fit  $\tilde{\sigma}_{\text{retail}}$  and therefore cannot simulate price adjustment. Online appendix table 6.2.3 reports the number of such comparables.

Online Appendix Table 6.3.2: Food and drink purchases under  $\lambda = 0$

	<i>Pantry staples (6)</i>			<i>Other food categories (235)</i>		
	Baseline	Informed consumers at baseline prices	Informed consumers at equilibrium prices	Baseline	Informed consumers at baseline prices	Informed consumers at equilibrium prices
National-brand quantity share	0.404	0	0.925	0.575	0	0.649
National-brand price (relative to cost)	1.312	—	1.078	1.962	—	1.343
Store-brand price (relative to cost)	1.146	—	1.039	1.346	—	1.098
Change as a share of baseline expenditure:						
Manufacturer profit	-0.101	-0.101	-0.101	-0.303	-0.303	-0.303
Retailer profit	0.048	-0.040	-0.040	0.103	0.103	-0.047
Consumer expenditure	-0.053	-0.141	-0.141	-0.200	-0.200	-0.350
Consumer surplus	0.053	0.141	0.141	0.200	0.200	0.350
Total surplus	0	0	0	0	0	0
Baseline consumer expenditure (\$bn / year):	\$1.81			\$122.61		

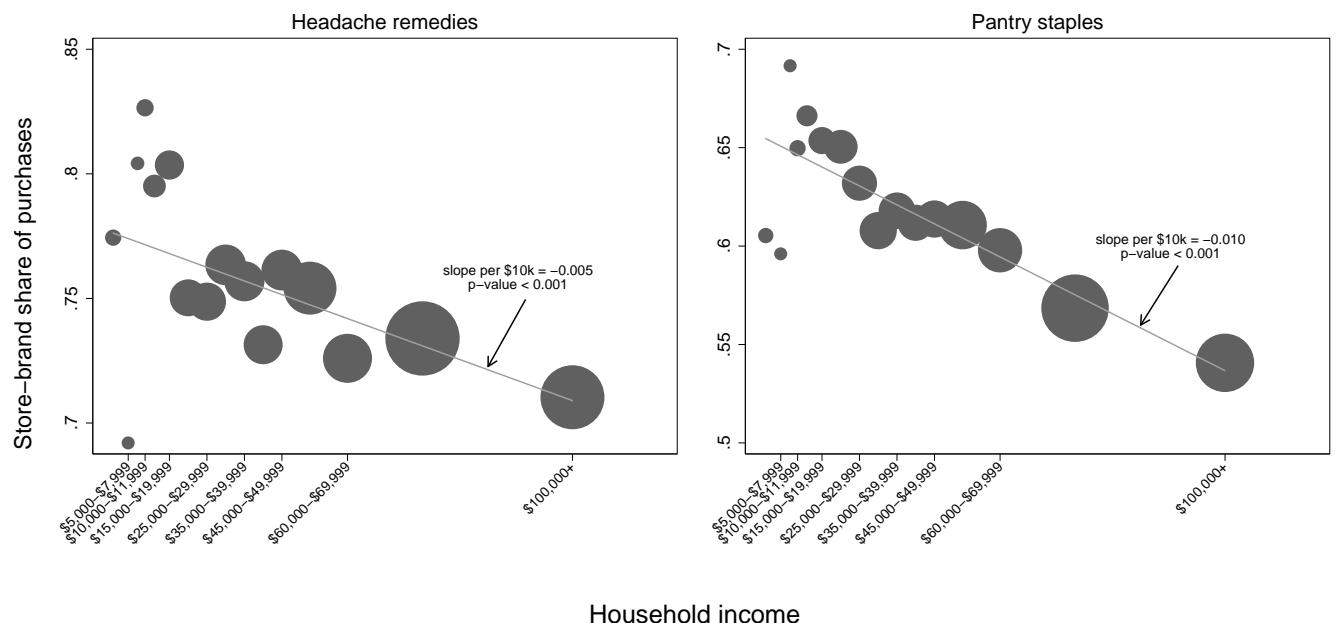
Notes: Table parallels table 7 but assumes that  $\lambda = 0$  instead of the estimated values. (Standard errors are omitted because we do not estimate  $\lambda$ .) The two panels report results for pantry staples comparables and other food and drink comparables, respectively, with the number of comparables in parentheses. The “baseline” column reports average prices relative to estimated manufacturing costs and repeats summary information from table 1. Total expenditure are estimated 2008 totals for all grocery, drug, and mass merchandise stores in the US. Relative prices and national-brand shares are averaged over comparable product groups weighting by expenditure. The “informed consumers at baseline prices” counterfactual computes the effect of all households choosing according to true rather than perceived brand preference, holding prices constant at baseline levels. The “informed consumers at equilibrium prices” counterfactual further allows prices to adjust to reflect the change in consumer demand. Note that equilibrium prices do not exactly equal to marginal cost due to the comparables for which we cannot fit  $\tilde{\sigma}_{\text{retail}}$  and therefore cannot simulate price adjustment. Online appendix table 6.2.3 reports the number of such comparables.

Online Appendix Table 6.3.3: Health categories purchases under full information, medications vs. other health products

	<i>Headache remedies (6)</i>		<i>Other medications (21)</i>				<i>Remaining health products (23)</i>			
	Baseline	Informed consumers at baseline prices	Baseline	Informed consumers at baseline prices	Baseline	Informed consumers at equilibrium prices	Baseline	Informed consumers at baseline prices	Baseline	Informed consumers at equilibrium prices
National-brand quantity share	0.258	0.117 (0.033)	0.286 (0.076)	0.355 (0.051)	0.299 (0.048)	0.452 (0.048)	0.505 (0.048)	0.433 (0.030)	0.554 (0.028)	
National-brand price (relative to cost)	6.036	—	3.798 (0.985)	4.533 (0.985)	—	3.454 (0.650)	2.850 (0.650)	—	2.940 (0.233)	
Store-brand price (relative to cost)	2.047	—	1.996 (0.105)	2.213 (0.105)	—	1.950 (0.154)	1.717 (0.154)	—	1.684 (0.031)	
Change as a share of baseline expenditure:										
Manufacturer profit		-0.188 (0.047)	-0.141 (0.051)		-0.080 (0.030)		-0.013 (0.041)		-0.030 (0.020)	-0.008 (0.028)
Retailer profit		0.053 (0.014)	-0.010 (0.026)		0.029 (0.011)		-0.060 (0.029)		0.010 (0.007)	-0.010 (0.009)
Consumer expenditure		-0.135 (0.034)	-0.151 (0.064)		-0.051 (0.019)		-0.073 (0.064)		-0.020 (0.013)	-0.018 (0.033)
Consumer surplus		0.038 (0.021)	0.150 (0.064)		0.049 (0.013)		0.066 (0.069)		0.020 (0.006)	0.012 (0.036)
Total surplus		-0.097 (0.025)	-0.000 (0.009)		-0.003 (0.015)		-0.007 (0.006)		0.000 (0.013)	-0.007 (0.009)
Baseline consumer expenditure (\$bn / year):		\$2.88		\$4.19			\$4.75			

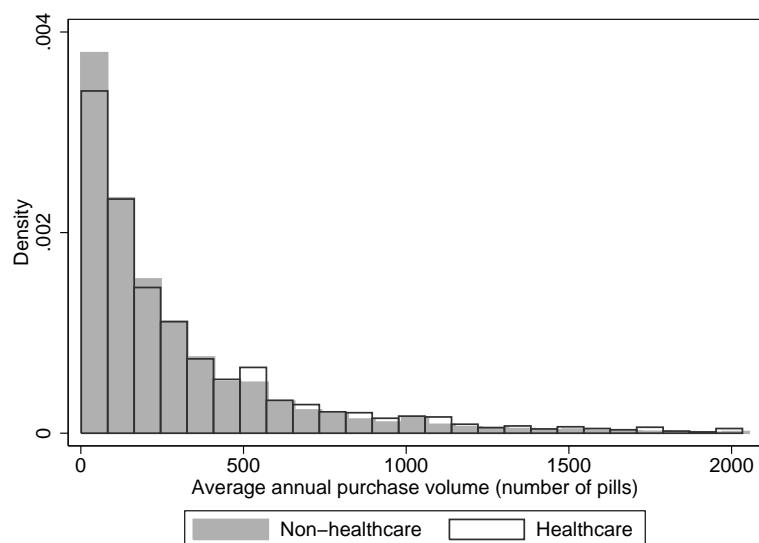
Notes: The three panels report results for headache remedy comparables, comparables for other medications, and remaining health comparables, respectively, with the number of comparables in parentheses. The “baseline” column reports average prices relative to estimated manufacturing costs and repeats summary information from table 1 in the paper. Total expenditure are estimated 2008 totals for all grocery, drug, and mass merchandise stores in the US. Headache remedy relative prices and national-brand shares are averaged over comparable product groups weighting by equivalent units sold, while other health category relative prices and national-brand shares are averaged over comparable product groups weighting by expenditure. The “informed consumers at baseline prices” counterfactual computes the effect of all households choosing according to true rather than perceived brand preference, holding prices constant at baseline levels. The “informed consumers at equilibrium prices” counterfactual further allows prices to adjust to reflect the change in consumer demand. Standard errors in parentheses are from 20 bootstrap replications in which we draw households at random with replacement and recompute all estimates. These standard errors thus account for correlation in sampling error across comparables. See section 6 of the paper for details of model specification and estimation.

Online Appendix Figure 4.1.1: Store-brand purchases and household income, headache remedies and pantry staples



Notes: Figures show the store-brand share of headache remedy and pantry staple purchases for households in each income category, weighted by equivalent volume. Households with income greater than \$100,000 are collapsed into a single top-coded income category. Household income is imputed at the midpoint of the range for each category, with the top category imputed at \$125,000. Labels on the x-axis indicate ranges for the income categories. The area of each circle is proportional to the number of households in the income category in our sample.

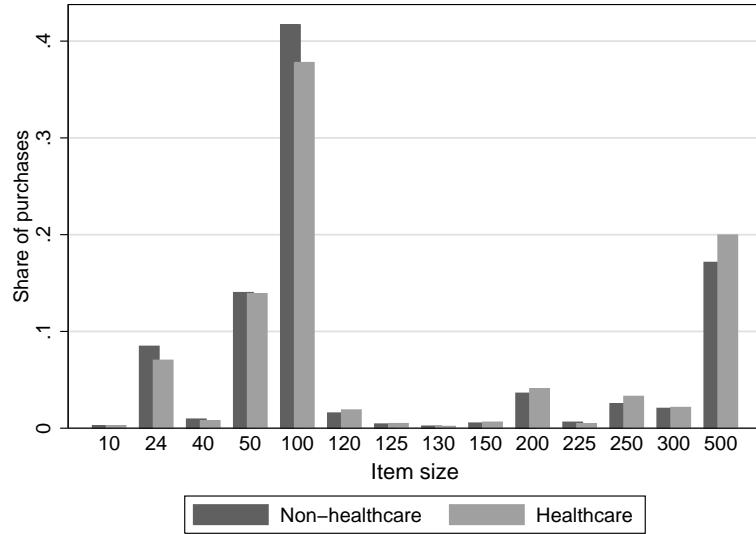
Online Appendix Figure 4.1.2: Average annual purchase volume and occupation, headache remedies



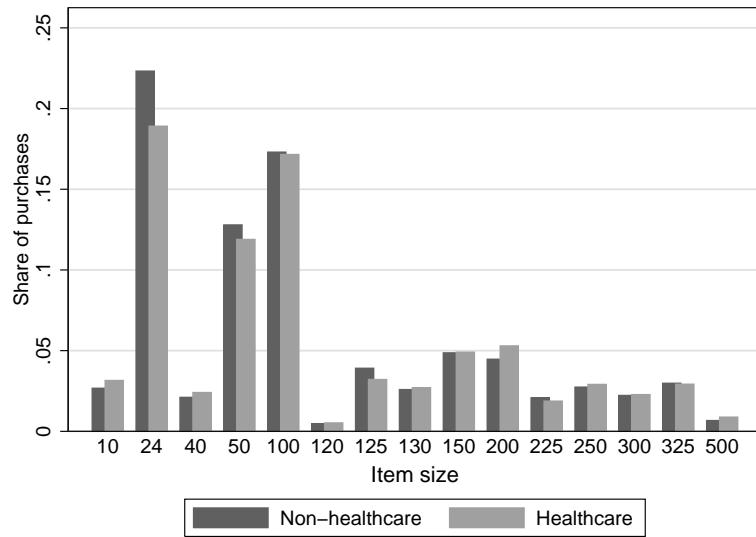
Notes: Bars labeled “healthcare” show the distribution of average annual purchase volume of headache remedies for households whose primary shopper is in a healthcare occupation. Bars labeled “non-healthcare” show the distribution of average annual purchase volume of headache remedies for households whose primary shopper is not in a healthcare occupation. Households in the top percentile of the overall average annual purchase volume distribution are excluded from the figure.

Online Appendix Figure 4.1.3: Item size and occupation, headache remedies

*Panel A: Store-brand*



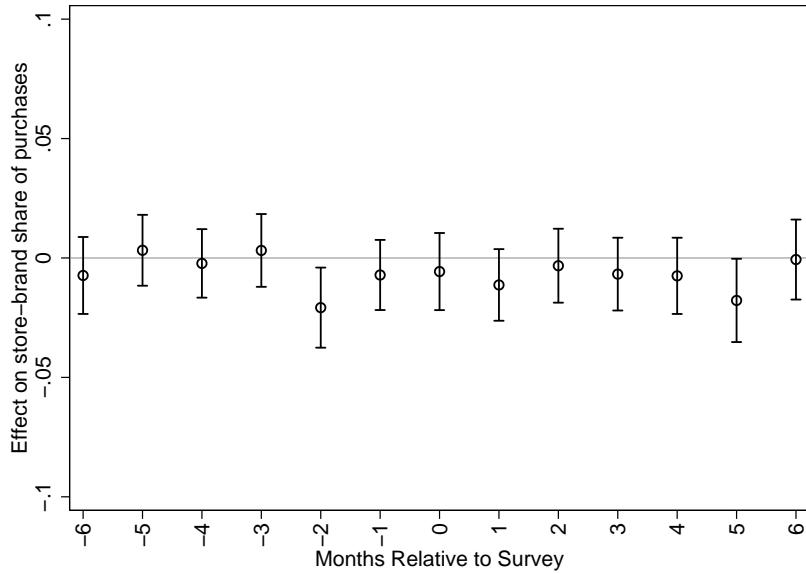
*Panel B: National-brand*



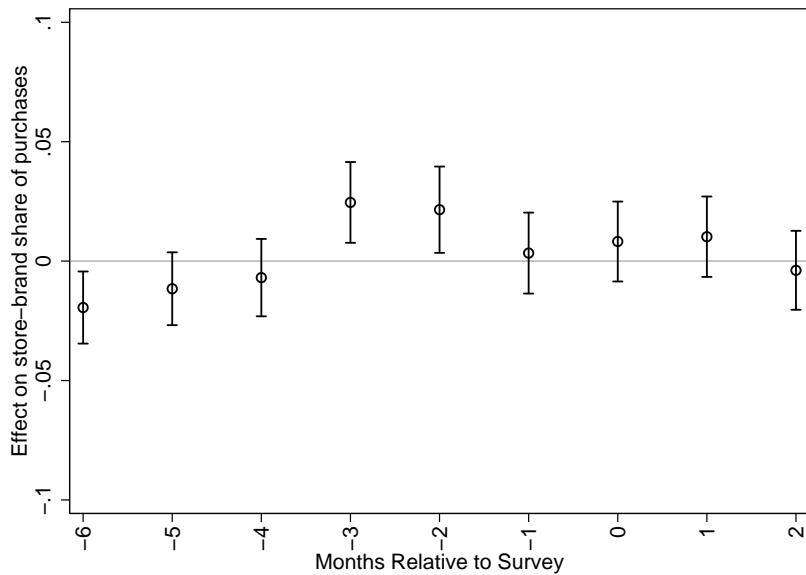
Notes: In panel A, bars labeled “healthcare” show the shares of store-brand headache remedy purchases for a given item size, as fractions of total store-brand headache remedy purchases made by households whose primary shopper is in a healthcare occupation. Bars labeled “non-healthcare” show the same for households whose primary shopper is not in a healthcare occupation. In panel B, bars labeled “healthcare” show the shares of national-brand headache remedy purchases for a given item size, as fractions of total national-brand headache remedy purchases made by households whose primary shopper is in a healthcare occupation. Bars labeled “non-healthcare” show the same for households whose primary shopper is not in a healthcare occupation. Only the top 15 item sizes in terms of total number of purchases across both store-brand and national-brand headache remedies are included in the figure.

Online Appendix Figure 4.1.4: Effect of surveys on store-brand purchases, headache remedies

*Panel A: September 2008 survey wave*

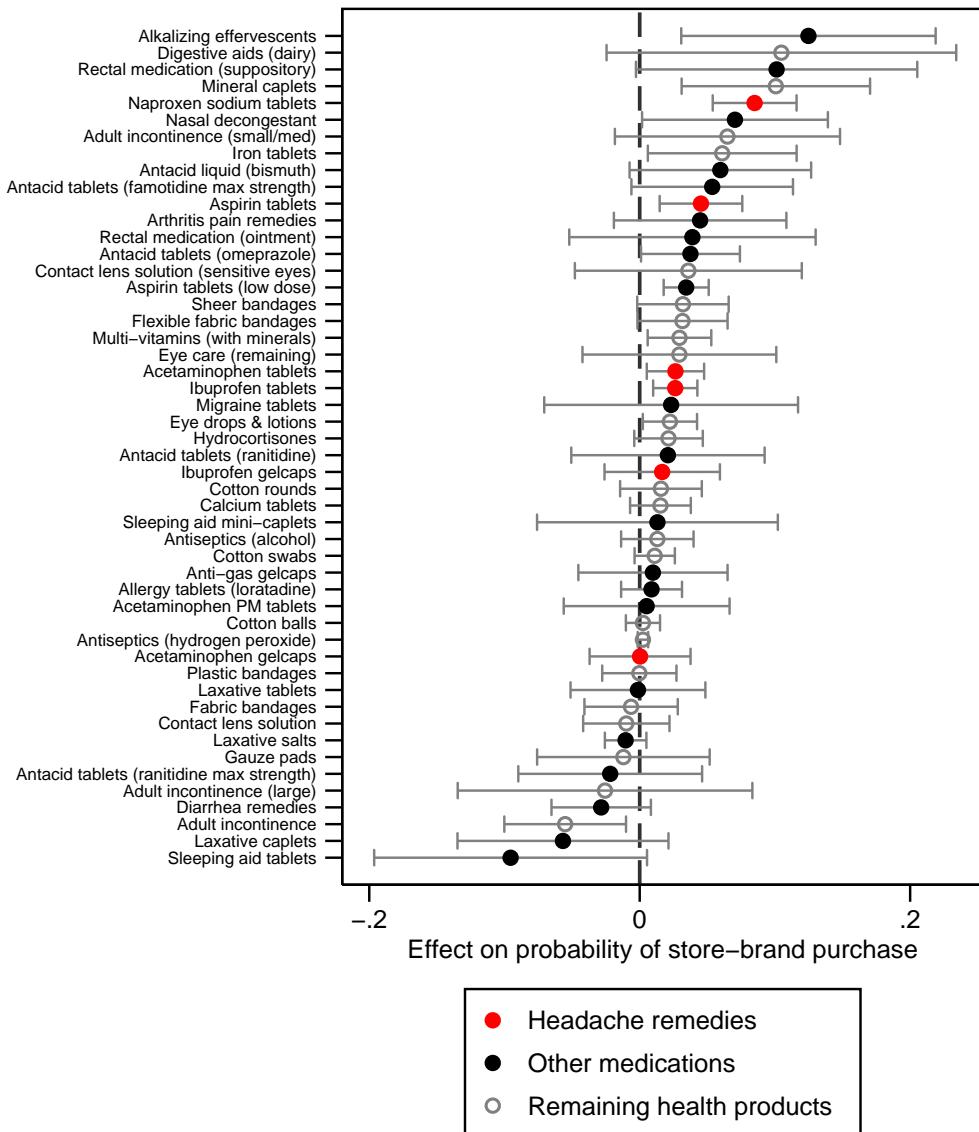


*Panel B: October 2011 survey wave*



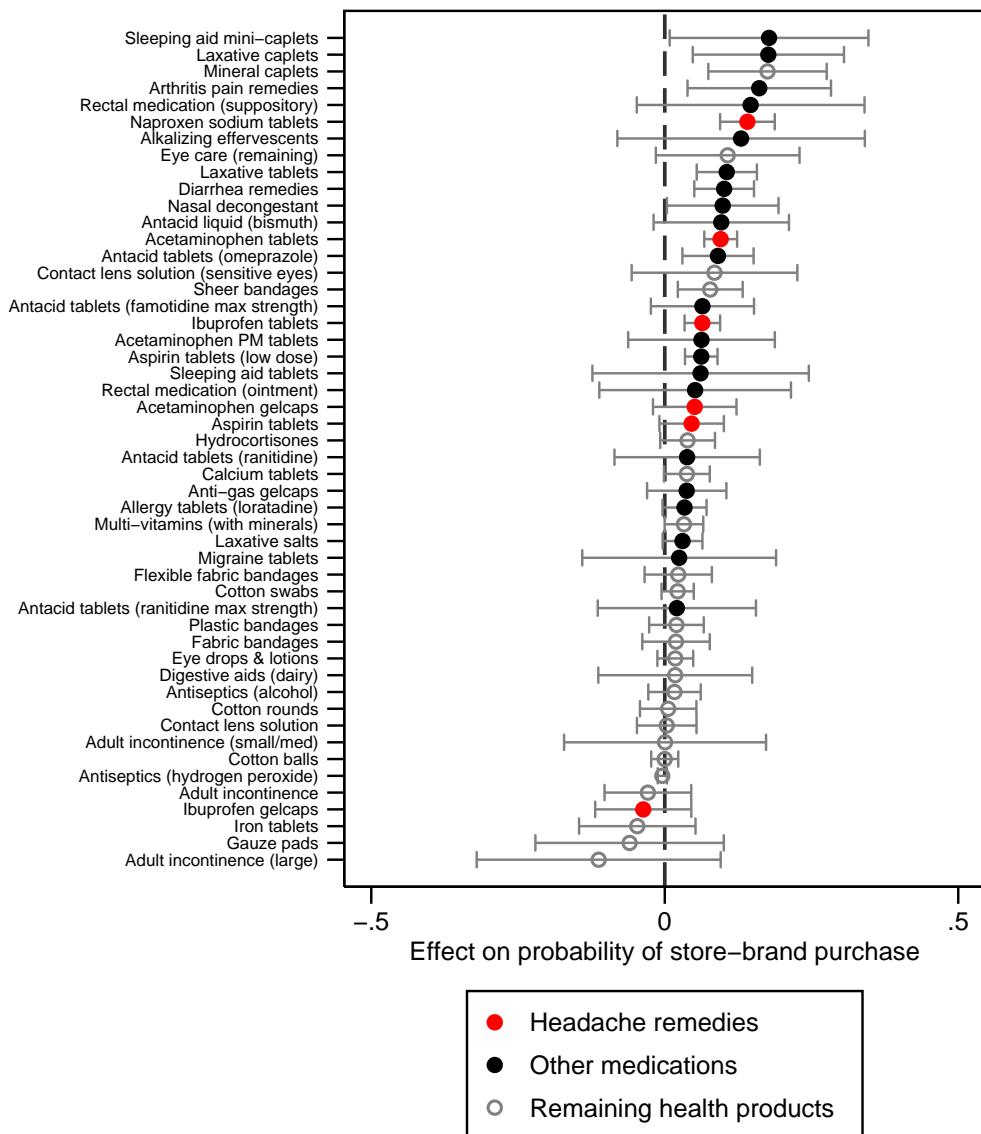
Notes: Each panel plots coefficients from a regression of an indicator of store-brand purchase on a vector of lead and lagged dummies relative to survey month. Unit of observation is a purchase of a headache remedy by a household. Observations are weighted by equivalent volume (number of pills). Regressions include controls for household fixed effects, monthly seasonality, and a quadratic monthly time trend. In panel A, we restrict the sample to purchases by respondents to the September 2008 PanelViews survey. In panel B, we restrict the sample to purchases by respondents to the October 2011 PanelViews survey. Data are available only through December 2011.

Online Appendix Figure 5.1.1: College education coefficients, health products



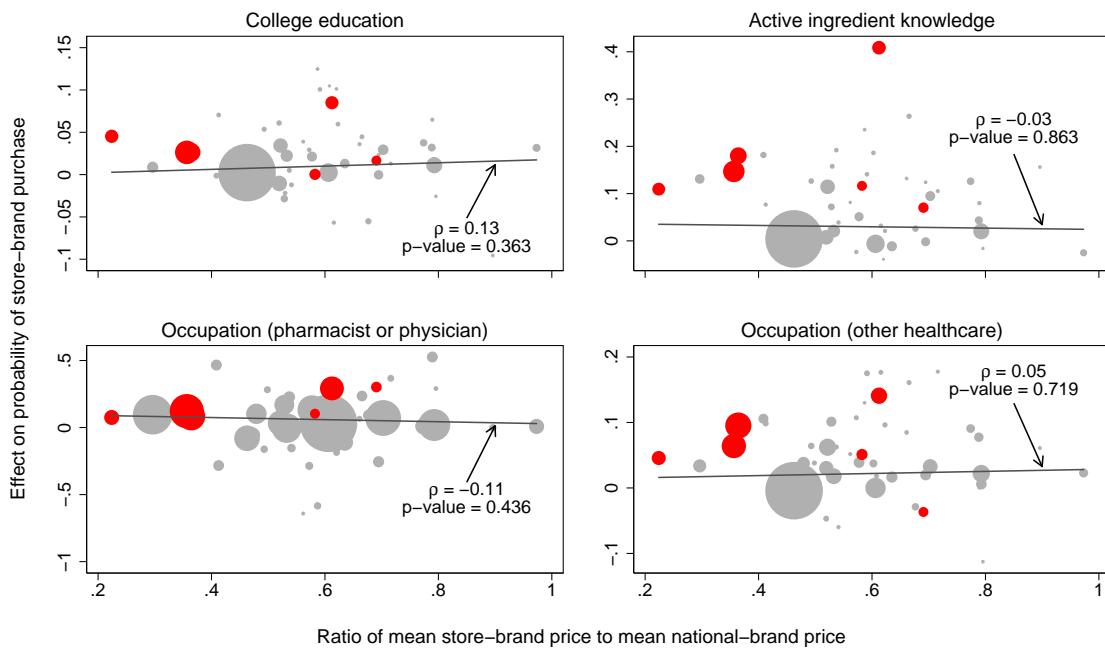
Notes: Figure plots coefficients and 95 percent confidence intervals on college education dummy for each health-related comparable product group from a regression following the specification of table 3 column (3). These are the same regressions for which the “pharmacist or physician” coefficients are plotted in figure 7 in the paper.

Online Appendix Figure 5.1.2: Other healthcare occupation coefficients, health products



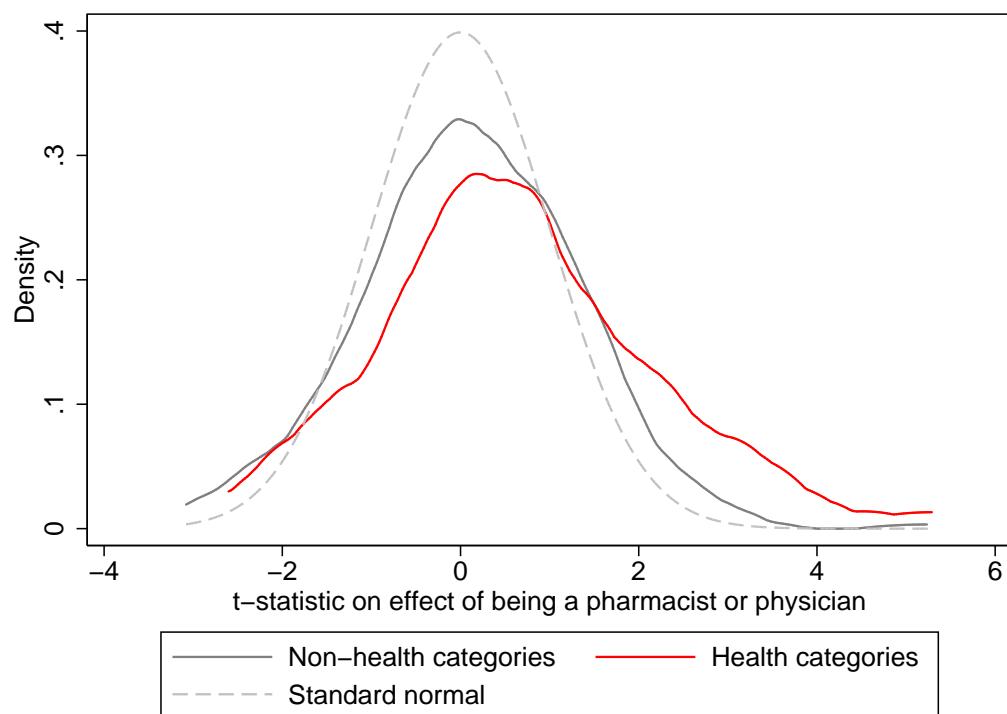
Notes: Figure plots coefficients and 95 percent confidence intervals on “other healthcare occupation” for each health-related comparable product group from a regression following the specification of table 3 column (3). These are the same regressions for which the “pharmacist or physician” coefficients are plotted in figure 7 in the paper.

Online Appendix Figure 5.1.3: Price ratio and the effects of knowledge, health products



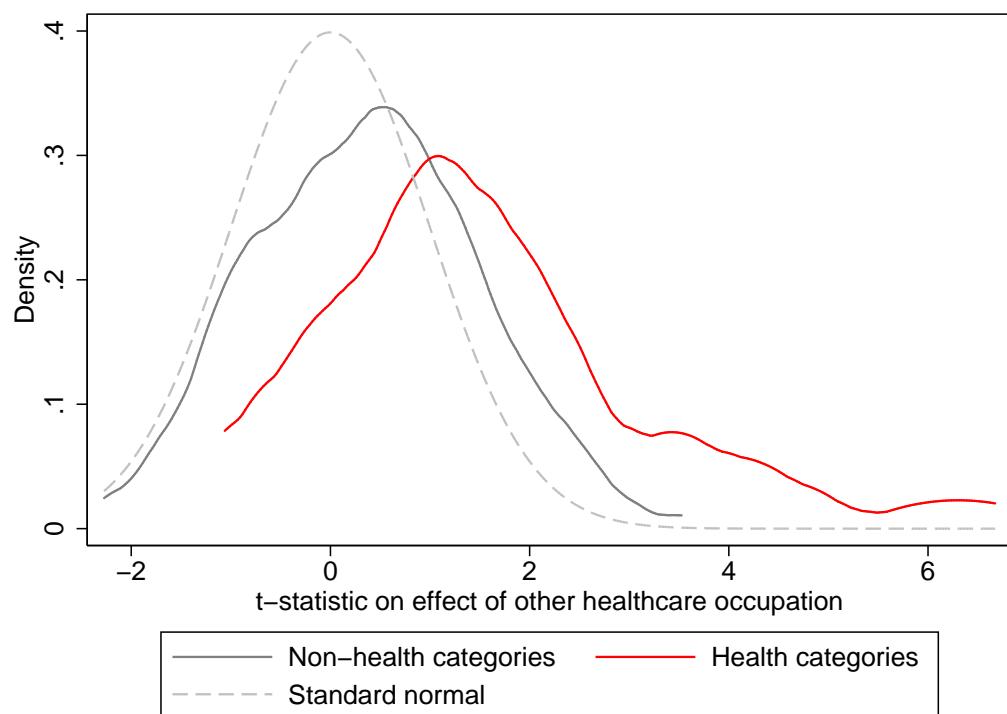
Notes: Figure plots coefficients of knowledge proxies for each health-related comparable product group. The area of each circle is proportional to the inverse of the variance of the coefficients. The circles highlighted in red are headache remedies. The lines are the best linear fit, “ $\rho$ ” is the correlation coefficient, and “p-value” is the regression p-value (all weighted by the inverse of the variance of the coefficients). The top right plot shows coefficients on “share of active ingredients known” from a regression following the specification of table 2 column (4). The remaining plots show coefficients on “college education,” “pharmacist or physician,” and “other healthcare occupation” from a regression following the specification of table 3 column (3).

Online Appendix Figure 5.1.4: Pharmacist / physician coefficients, health vs. non-health products



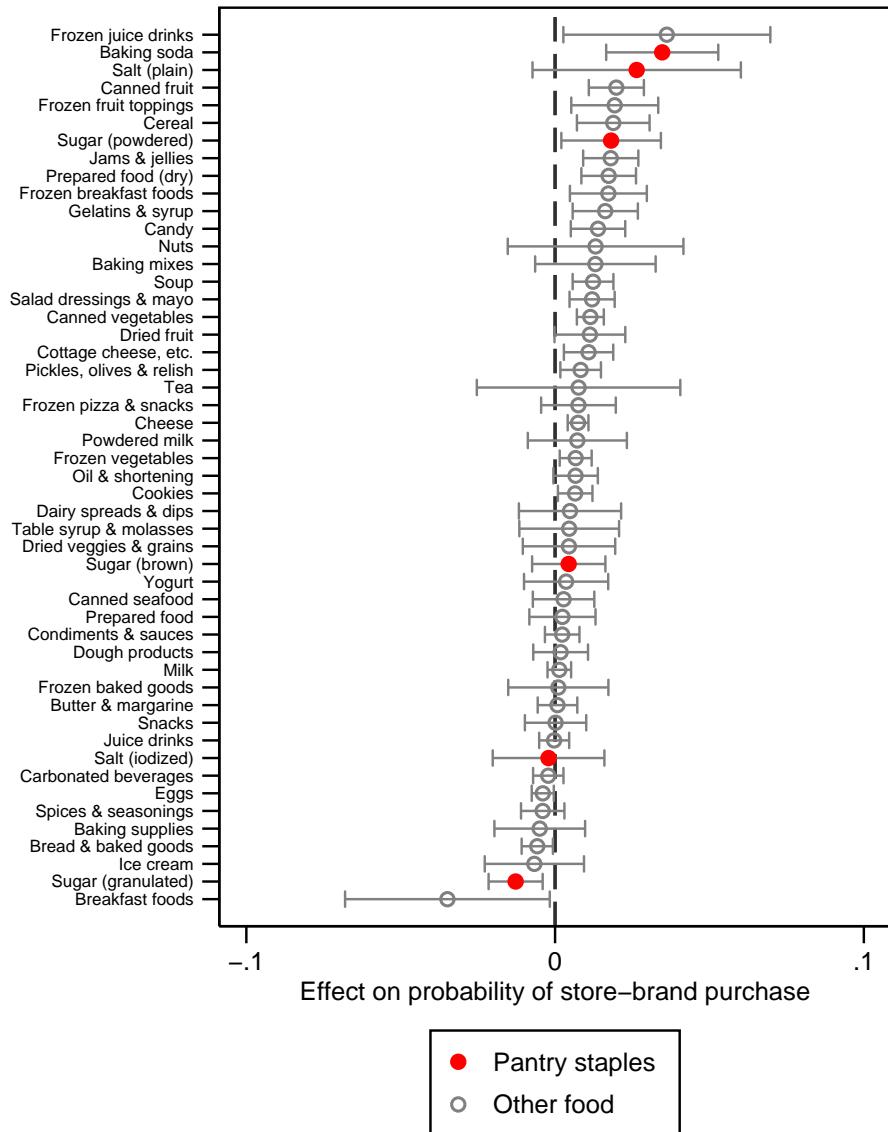
Notes: Figure plots the distribution of  $t$ -statistics on “pharmacist or physician” for all health-related and non-health-related comparable products groups from a regression following the specification of table 3 column (3). Distribution is estimated using an Epanechnikov kernel with optimal bandwidth. The standard normal density is plotted with dashed lines.

Online Appendix Figure 5.1.5: Other healthcare occupation coefficients, health vs. non-health products



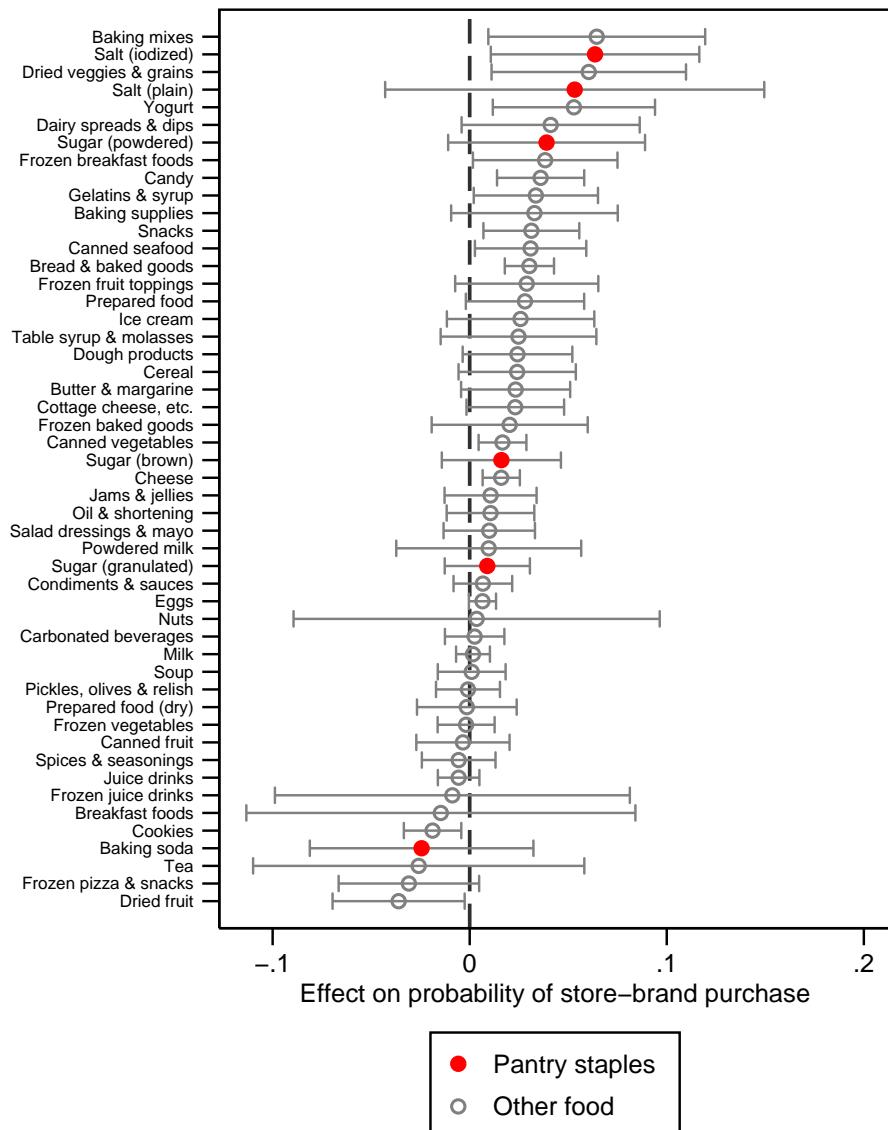
Notes: Figure plots the distribution of  $t$ -statistics on "other healthcare occupation" for all health-related and non-health-related comparable products groups in our sample from a regression following the specification of table 3 column (3). Distribution is estimated using an Epanechnikov kernel with optimal bandwidth. The standard normal density is plotted with dashed lines.

Online Appendix Figure 5.2.1: College education coefficients, food products



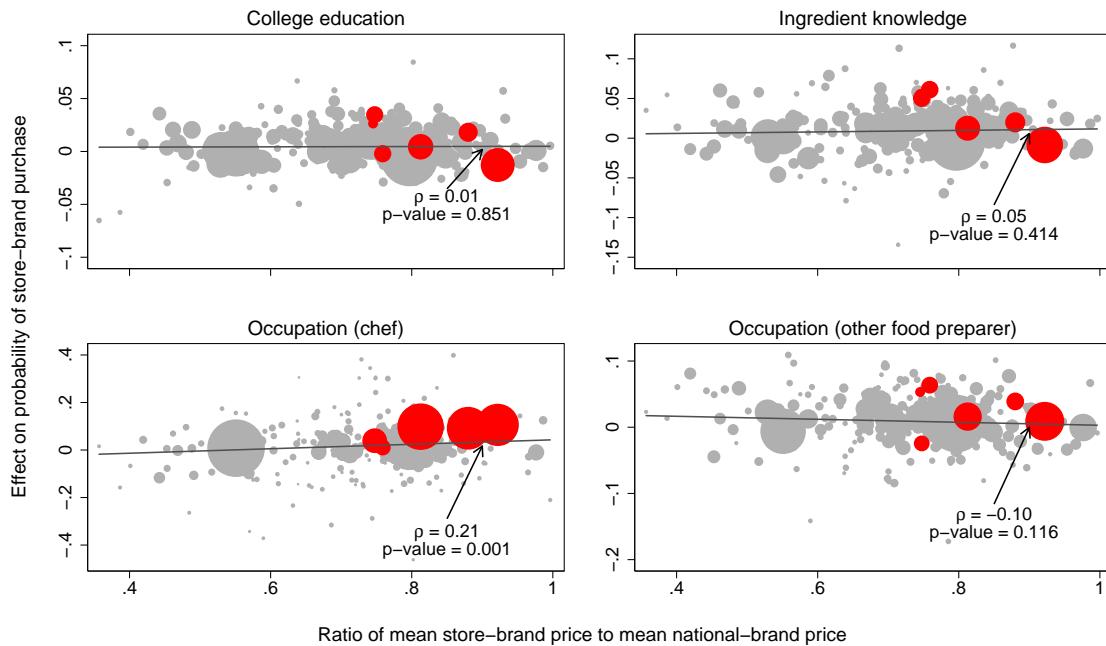
Notes: Figure plots coefficients and 95 percent confidence intervals on “college education” for each food and drink category. Coefficients are estimated separately for each comparable in a regression following the specification of table 4 column (3). Coefficients for pantry staples are plotted individually by comparable. We aggregate coefficients for all other comparables to the Nielsen product group level, reporting the precision-weighted mean of the estimated coefficients and constructing the confidence intervals based on the harmonic mean of the estimated variances. These are the same regressions for which the “chef” coefficients are plotted in figure 9 in the paper.

Online Appendix Figure 5.2.2: Other food preparer occupation coefficients, food products



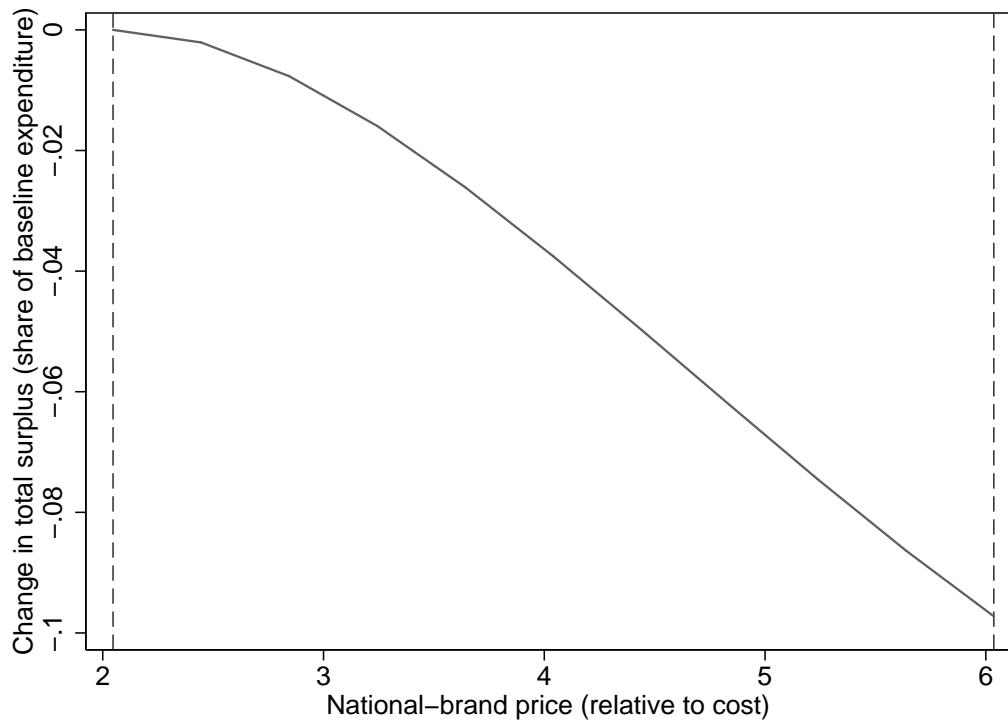
Notes: Figure plots coefficients and 95 percent confidence intervals on “other food preparer” for each food and drink category. Coefficients are estimated separately for each comparable in a regression following the specification of table 4 column (3). Coefficients for pantry staples are plotted individually by comparable. We aggregate coefficients for all other comparables to the Nielsen product group level, reporting the precision-weighted mean of the estimated coefficients and constructing the confidence intervals based on the harmonic mean of the estimated variances. These are the same regressions for which the “chef” coefficients are plotted in figure 9 in the paper.

Online Appendix Figure 5.2.3: Price ratio and the effects of knowledge, food products



Notes: Figure plots coefficients of knowledge proxies for each food-related comparable product group in our sample. The area of each circle is proportional to the inverse of the variance of the coefficients. The circles highlighted in red are pantry staples. The lines are the best linear fit, “ $\rho$ ” is the correlation coefficient, and “p-value” is the regression p-value (all weighted by the inverse of the variance of the coefficients). The top right plot shows coefficients on “share of active ingredients known” from a regression following the specification of online appendix table 4.2.1 column (3). The remaining plots show coefficients on “college education,” “chef,” and “other food preparer” from a regression following the specification of table 4 column (3).

Online Appendix Figure 6.3.1: Change in total surplus and gap between national- and store-brand prices, headache remedies



Notes: This figure plots the results of a series of model simulations. All simulations fix model parameters at their estimated levels and store-brand prices at their observed levels. Across simulations we vary the national-brand price. For each national-brand price, we compute the change in total surplus relative to baseline expenditure for the “informed consumers at baseline prices” counterfactual reported in table 6 in the paper. The y-axis reports the change in surplus; the x-axis reports the average national-brand price (relative to cost), weighting comparables by equivalent units sold. The two vertical dashed lines show the observed store-brand price relative to cost (left) and observed national-brand price relative to cost (right).

## **References**

- National Center for O\*NET Development. 2009. O\*NET 14.0 Production Database. Accessed at <http://www.onetcenter.org/database.html> on January 29, 2010.
- Private Label Manufacturers Association. 2013. Today's primary shopper. Accessed at [http://plma.com/2013PLMA\\_GfK\\_Study.pdf](http://plma.com/2013PLMA_GfK_Study.pdf) on February 26, 2014.