Online Specialty Food Consumers in 2000: Who They Are and What They Buy

Gregory K. White

This report is the result of the fourth in a series of surveys describing the population of Internet users who visit food and drink sites online. It examines their demographic characteristics and online shopping activity and identifies subsets of this population that have made more frequent online transactions. Approximately 26 percent of respondents reported making an average of 4.4 specialty food or beverage purchases online in the previous six months. Nearly 25 percent of respondents' most recent purchases were made from 7 companies. An additional ten companies accounted for 15 percent of their most recent purchases. The remaining 60 percent of purchases were distributed among 602 other companies.

The estimated number of U.S. consumers who made at least one online purchase increased 130 percent between 1998 and 1999, reaching 39 million people (Ernst & Young 2000). This number is expected to continue to grow as both the number of Internet users and the percentage of online buyers increase over the next four years. eMarketer projects that 101 million people will make an online purchase in 2003, and that 58 percent of those consumers will be Internet "regular buyers" (eMarketer 2000).

Not only are more people shopping online, they are also spending more. Ernst & Young reports that annual U.S. consumer online spending increased from an average of $230 in 1997 to $1200 in 1999 (Ernst & Young 2000). That, too, is expected to continue to increase as consumers project that they will spend 36 percent of their "shopping money" online by 2002.

Internet shoppers, however, are not a homogeneous group (Chu et al. 1999). To take advantage of the growth in online sales, specialty food retailers need to understand their online audience.

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The first three surveys in this series documented that the demographics of visitors to specialty food and drink sites differed from both the general Internet population and the U.S. population at large (White and Cheng 1996, White 1997, White 1999). However, this population shared many characteristics with traditional retail specialty food shoppers.

The 2000 survey was intended to identify a demographic profile of current Internet users who visit food-related sites and compare it to the profiles from previous years. The study was also developed to determine the extent to which this population has adopted the Internet as an acceptable medium for purchasing specialty food and beverages.

This report describes the demographic characteristics and online shopping activity of the surveyed population. The procedures for recruiting participants to the survey were designed to draw a representative sample. The respondents are not intended to represent all Internet users who visit food and drink sites. Rather, the survey has been designed to help online specialty food retailers better understand the characteristics and purchasing behavior of Internet users who visit food and drink sites.

The term "specialty food" is not defined for this study. This is due to both a lack of an accepted definition within the industry and also because of the difficulty in making a precise definition clear to an international population of survey respondents. We use the term only to distinguish the category in the mind of each respondent as something which he or she considers "special." Morris Kushner, a long-time nationally known consultant to the food industry states:

Specialty foods may differ from region to region, from culture to culture, and even within the boundaries of a single nation. What one may consider a food specialty may be an everyday commodity to another. Thus, applying a concise definition to the term is impossible. (Kushner, p. 15)

Methodology

The survey was conducted between 1 February and 7 March 2000. As in the three previous studies the demographic survey was prepared as an Internet document on the University of Maine server. In 2000 an identical survey instrument was also placed on the Global Gourmet web site.

The survey procedure and recruitment of respondents follow the methods adopted for the three previous demographic studies. The methodology and an evaluation of potential sampling biases have been previous reported by White (1996). In general, individuals were invited to participate in the survey via postings on food- and wine-related bulletin boards, newsletters, newsgroups, links on food sites, and direct mailings to registered users of food and drink sites. A list of all known posting locations is provided below. However, there may have been additional notices posted by members of the online food community.

Bulletin Boards
- Bonjour Paris Food Message Board
- Canadian Living Food Forum
- Chatelaine Magazine Food Forum
- CheeseNet
- Eclix Food Bulletin Board
- Gail's Recipe Swap on Epicurious.com
- Kansas City BBQ Forum
- Mark Squires Wine Bulletin Board
- Wine Lovers' Forum
- Wine Spectator Forum
- UK Wine Forum

Direct Email
- Bob's Sugar House
- Cookingindex
- Foodies.com
- Global Gourmet
- MinuteMeals
- Wilbur's Chocolates

Links
- CDKitchen
- CooksRecipes.com
- Firegirl.com
- Global Gourmet

Newsletters
- 30 Second Wine Advisor
- CooksRecipes
- Diabetic Gourmet Magazine
- FoodWeb Newsletter
- Gourmet International/ Cybercucina
- KitchenLink (paid advertisement)
- MinuteMeals
- Recipe Page/ Gourmet Connection
- SCC Kitchen Happenings
- Sam Cooks

Newsgroups/Mailing Lists
- Bakery Shoppe
- Cooking@elists.com.au
- Cooking Smart
- Dailyrecipes.com
- Grans Goodies
- Recipelu

These methods are designed to attract individuals who are interested in food sites and are visitors to commercial Web sites marketing specialty food and drink products. The resulting group of participants is not intended to represent the Internet population as a whole, nor is it intended to represent the population of consumers who purchase specialty food products from all sources. The author believes that the techniques used to attract participants to the survey provide data that is closely representative of the targeted population and of primary interest to firms marketing specialty food online.

The respondent population was much larger in 2000 than it was in the previous three surveys. A total of 7982 valid surveys were received. We attribute the increased response rate largely to the active participation of several on-line retailers and food-related content providers. One bulletin board, two newsletters, and email messages from two sites were each responsible for more than 200 respondents. A large number of respondents also indicated that they had heard of the survey by word-of-mouth.

Responses were received as email, compiled with Perseus Survey Solutions for the Web, and aggregated in an Excel file for analysis. This procedure was identical to that used in the 1999 survey (White 1999).

Respondent Demographics

Originally dominated by young men, the Internet has now reached gender parity among American users (Harris Poll 1999, Mediamark 1999). The gender of visitors to food and beverage sites, however, continues to differ from the Internet population as a whole (Table 1) with approximately 78 percent female representation. This is statistically unchanged from 1999.

Data for the Harris Poll was collected from 2019 random telephone interviews with adults in the U.S. in the fall of 1999. The purpose of the Harris Poll study was to determine the extent of Internet use both at home and at work and to document how consumers use the Internet for communication, information gathering, and commerce. The Mediamark CyberStats data are from an annually assembled panel of 25,000 U.S. adults. The CyberStats study was intended to measure the level of adult access to the Internet and use rates. Information was collected on consumer demographics, product and brand usage, and consumer recall of exposure to various advertising media. Reported percentages for both studies are of adults who use the Internet.

As in 1999, visitors to specialty food and beverage sites in 2000 were older than the Internet population in general (Table 2). The majority of respondents (56.5 percent) were aged 35 to 54. Approximately 21 percent were aged 55 or above; 17 percent were 34 years of age or younger. There was no statistically significant change in respondents' age between 1999 and 2000.

As Internet use continues to become more mainstream, the educational level of users is decreasing (CyberAtlas 1999). Among visitors to specialty food sites the percentage of college graduates has declined with each of the University of Maine studies (Table 3). In 1996 approximately two-thirds of survey respondents were college graduates; in 2000 fewer than one-half held a college degree and 14.7 percent reported no education beyond high school. However, visitors to food sites

Table 1. Respondents' Gender (Percent of Respondents).

	UMaine Food & Drink Surveys				The Harris Poll	Mediamark CyberStats
	2000 (N=7824)	1999 (N=665)	1997 (N=167)	1996 (N=244)	December 1999	Fall 1999
Female	77.7	76.6	53.0	50.4	50	49.2
Male	21.4	22.2	45.2	46.3	50	50.8
Rather Not Say	1.0	1.1	1.8	3.3	N/A	N/A

Table 2. Respondents' Age (Percent of Respondents).

	UMaine Food & Drink Surveys				The Harris Poll		Mediamark CyberStats	
Age	2000 (N=7854)	1999 (N=650)	1997 (N=167)	1996 (N=244)	Age	%	Age	%
17 or under	0.4	0.0	0.6	0.4				
18–20	1.1	0.8	3.6	0.8				
21–24	3.1	2.8	9.0	7.1	18–29	28	18–34	40.4
25–34	17.4	17.1	29.3	30.7				
35–44	26.9	27.1	22.8	35.3	30–39	26	35–54	48.1
45–54	29.6	28.9	21.6	18.2	40–49	24		
55–64	15.8	18.5	9.0	5.0	50–64	14	55+	11.5
65+	5.6	4.9	1.8	1.2	65+	6		

Table 3. Highest Education Attained by Respondents (Percent of Respondents).

Education	UMaine Food & Drink Surveys 2000 (N=7854)	1999 (N=650)	1997 (N=167)	1996 (N=244)		The Harris Poll Dec, 1999	Mediamark CyberStats Fall 1999
Did not graduate high school	1.2	0.5	2.4	1.2			
Graduated high school	13.5	9.0	3.6	6.6	Did not attend college	35	24.9
Some college or 2 year	36.1	33.0	25.7	26.1	Attended college	32	35.5
Graduated college	28.7	29.6	39.5	33.6	Graduated college plus	32	39.6
Advanced degree	19.0	26.6	26.9	31.5			
Rather Not Say	1.5	1.4	1.8	0.8			

Table 4. Respondents' Household Income (Percent of Respondents).

	UMaine Food & Drink Surveys 2000 (N=7810)	1999 (N=662)	1997 (N=167)	1996 (N=244)	The Harris Poll		Mediamark CyberStats	
Less than $15,000	4.3	3.0	7.8	3.5				
$15,000–$24,999	7.5	4.4	7.0	6.4	$25K or Less	14		
$25,000–$34,999	11.9	9.5	12.2	11.4				
$35,000–$44,999	13.5	11.5	11.3	10.4	$25K - $50K	29		
$45,000–$54,999	13.5	13.5	11.3	11.9			<$50K	56.4
$55,000–$64,999	11.1	12.5	15.7	15.4	$50K or More	41	$50K–$75K	20.5
$65,000–$74,999	10.3	12.1	7.0	10.4				
$75,000–$99,999	13.1	13.1	12.2	14.0			$75K–$150K	19.3
$100,000–$149,999	9.6	11.9	15.7	16.4				
More than $150,000	5.4	8.7					$150K or More	3.8
Rather not say	27.4	23.7	28.9	17.6				

continue to report higher educational levels than the Internet population as a whole as reported by Harris Poll and Mediamark.

Respondents to the 2000 survey reported slightly lower household incomes than they did in 1999 (Table 4), with nearly equal numbers of respondents reporting incomes above and below $55,000. While the incomes have declined slightly, they generally remain above the reported incomes of the general Internet population.

The vast majority of survey respondents (94.2 percent) were residents of the United States, and most of the remainder (3.4 percent) were from Canada. Other respondents were residents of Europe (1.1 percent), Oceania (0.6 percent), and other geographic areas (0.7 percent). This geographical distribution differs greatly from the Internet population as whole, of which North Americans are es-

Table 5. U.S. Respondents' Residence by Census Regions (Percent).

Region	UMaine Food and Drink Survey	U.S. Census 7/1/99 Estimate
New England (CT, ME, MA, NH, RI, VT)	8.9	4.9
Middle Atlantic (NY, NJ, PA)	16.2	14.1
South Atlantic (DE, DC, FL, GA, MD, NC, SC, VA, WV)	17.1	18.2
East North Central (IL, IN, MI, OH, WI)	15.0	16.3
West North Central (IA, KS, MN, MO, NE, ND, SD)	6.3	6.9
East South Central (AL, KY, MS, TN)	4.5	6.1
West South Central (AR, LA, OK, TX)	9.4	11.1
Mountain (AZ, CO, ID, MT, NV, NM, UT, WY)	6.2	6.3
Pacific (AK, CA, HI, OR, WA)	16.3	16.1

Table 6. U.S. Respondents' Residence by ERS Urban Influence Codes.

Urban Influence Codes	UMaine Food and Drink Survey (Ghelfi 2000)	1997 U.S. Population Estimate
1. Metropolitan County—1 million or more	53.1	49.6
2. Metropolitan County—less than 1 million	31.4	30.1
3. Adjacent to a large metro area and contains all or part of its own city of 10,000 or more	1.2	1.4
4. Adjacent to a large metro area and does not contain any part of a city of 10,000 or more	0.5	1.0
5. Adjacent to a small metro area and contains all or part of its own city of 10,000 or more	3.5	3.9
6. Adjacent to a small metro area and does not contain any part of a city of 10,000 or more	3.8	4.9
7. Not adjacent to a metro area and contains all or part of its own city of 10,000 or more	3.3	3.9
8. Not adjacent to a metro area and contains all or part of its own town of 2500 to 9999	2.5	3.8
9. Not adjacent to a metro area and totally rural, does not contain any part of a town of 2500 or more	0.7	1.3

timated to compose 45.0 percent of the total (NUA 2000). Because the survey was primarily focused on food-related sites in the United States, and because it was available only in English, the survey distributions are assumed to reflect an accurate sample of visitors to American specialty food sites.

The survey also asked U.S. residents to provide their zip code. For the first time, this data was analyzed to determine state and county of residence and to classify respondents according to U.S. Census regions and ERS Urban Influence Codes (Ghelfi and Parker 1997). Residents from New England and the Middle Atlantic (Table 5) appear to be somewhat over-represented. It is not known whether this is due to survey bias, regional levels of Internet use, or stronger interest in specialty food and beverage content online. Further analysis will be conducted regarding the relationship between urban influence (Table 6) and online use of specialty food and beverage sites.

Internet Use

There was no statistically significant difference between the 1999 and 2000 surveys in the amount of time respondents had been online (Table 7). Most

Table 7. Length of Time Online (Percent of Respondents).

	UMaine Food & Drink Surveys	
	2000 (N=7966)	1999 (N=601)
Less than 6 months	4.9	4.8
6–12 months	9.1	9.3
1–3 years	42.3	41.9
4–6 years	31.6	33.3
7 years or more	12.1	10.6

Table 8. Internet Purchases by Length of Time on Internet (Percent of Respondents).

	0–6 months	6–12 months	1–3 years	4–6 years	7+ years
Any Internet purchase in past six months (1999)	51.5	69.0	75.3	87.1	89.7
Any Internet purchase in past six months (2000)	50.3	72.8	80.2	86.7	90.7

Table 9. Frequency of Online Purchases (Percent of Respondents).

	Less than once each month	About once each month	Several times each month	About once each week	Several times each week	At least once each day
1999	53.9	25.4	15.9	2.4	2.0	0.4
2000	48.0	29.5	16.1	3.9	2.2	0.3

Table 10. Products Purchased Online in Previous Six Months (Percent of Respondents).

	2000 (N=7982)	1999 (N=674)
Books	53.1	51.0
Music CDs/Tapes/Albums	38.6	31.3
Computer Software/Games	28.7	24.3
Clothing/Shoes	30.2	21.5
Travel Arrangements	23.4	19.3
Grocery Items	17.1	18.4
Computer Hardware	13.1	12.5
Flowers	12.0	10.1
Investment Choices (e.g., stocks)	7.2	6.8
Banking/Financial Services	8.1	6.4
Wine	5.8	2.8

Note: multiple responses allowed.

respondents reported using the Internet for 1 to 3 years (42.3 percent) or 4 to 6 years (31.6 percent). The remainder had been online for 7 years or more (12.1 percent), 6 to 12 months (9.1 percent), and less than 6 months (4.9 percent).

Many of the trends observed in the 1999 study among new users continued in 2000. The vast majority of respondents who had been online for one year or less were women (85 percent). Only 32.5 percent of new users held a college degree — approximately half as many as respondents who had been online for seven or more years. Fewer new users in 2000 also worked full-time outside the home than in previous surveys.

Internet Purchasing Activity

The survey obtained information about respondents' recent histories of online specialty food and beverage purchases. As in 1999, it also asked about online purchases of other products and services.

A large majority of respondents (81.4 percent) made at least one purchase of any food or non-food product over the Internet in the previous six months. This does not represent a statistically significant increase over the 78.9 percent who bought online in 1999. Thus the extent to which the population of Internet users who visit food and drink sites has adopted the medium as a shopping channel continues to outpace other Internet users. The 1999 America Online/Roper Starch Cyberstudy reported that 42 percent of all Internet consumers shopped online (CyberAtlas). eMarketer estimates that 58 percent of Internet users made one or more online purchases in 1999.

Online buying was directly related to respondents' length of Internet use. While only 50.3 percent of respondents online for six months or less bought via the Internet, 80.2 percent of those online from 1 to 3 years made a purchase, and 90.7 percent of respondents online seven years or more bought online (Table 8).

In general, respondents who bought online did so infrequently. Most made Internet purchases "less than once each month" (48.0 percent) or "about once each month" (29.5 percent) (Table 9). Among more frequent shoppers, 16.1 percent bought online "several times a month" and 6.4 percent made online purchases at least once each week.

Books were again the most frequent purchase among survey respondents (53.1 percent) (Table 10). Music CDs/Tapes/Albums and Clothing/Shoes were purchased by significantly more respondents in 2000 (38.6 percent and 30.2 percent, respectively) than in 1999. The percentage of respondents who purchased wine online also increased significantly, but this is due in part to the recruitment of participants from wine content sites. Excluding respondents referred from wine sites, 4.3 percent of the remaining respondents purchased wine online.

Specialty Food Purchases

As in the three previous surveys, respondents were asked about their specialty food and beverage purchases. After rising sharply in 1999 the percentage of respondents who made at least one online specialty food or beverage purchase in the past six

Table 11. Specialty Food Purchases in Previous Six Months: Source, Frequency, and Value.

	2000	1999	1997	1996
Online (% of respondents)	25.8	30.0	12.1	12.3
Number of times in last 6 months	4.4	3.2		
Approximate total $	244	134		
Catalog (% of respondents)	27.7	34.1	36.4	44.3
Number of times in last 6 months	4.5	3.3		
Approximate total $	134	149		
Retail (% of respondents)	83.9	84.9	93.9	82.8
Number of times in last 6 months	13.7	16.1		
Approximate total $	302	350		

months dropped slightly from 30.0 percent to 25.8 percent in 2000 (Table 11). However, respondents who made online purchases did so more often than they did in 1999 (4.4 vs. 3.2 times) and spent more on each purchase ($55 vs. $42) and overall ($244 vs. $134).

In the 1996 survey more visitors to food and beverage sites made a specialty food purchase by catalog than online by a proportion of 3.6:1. In the 2000 survey the percentage of respondents who used the two shopping channels is approximately equal. Nearly 28 percent of respondents made at least one specialty food or beverage purchase by catalog in the previous six months, and they made an average of 4.5 purchases. However, the average amount of their catalog purchases was $30, compared to $45 in 1999; this is 45 percent lower than their average online purchase.

The percentage of respondents reporting one or more retail specialty food or beverage purchase remained statistically constant at approximately 84 percent. The average retail purchase also remained unchanged at $22, but the number of purchases decreased from 16.1 in 1999 to 13.7 in 2000.

Although the percentage of respondents making at least one online specialty food or beverage purchase decreased from 1999 to 2000 the percentage who purchased specific product categories was significantly higher (at the 95-percent level) in 23 of the 25 survey categories (Table 12). The exceptions were Condiments/Relishes and Sauces (bases, mixes). These, too, were purchased by more respondents in 2000 but the increases were not statistically significant.

Fancy Coffee/Tea/Cocoa and Seasonings (spices, herbs) were again the products most frequently purchased online (14.6 percent and 13.3 percent, respectively) although their order was re-

Table 12. Online Specialty Food and Beverage Purchases by Product Category (Percent of Respondents).

	2000	1999	1997	1996
Alcoholic Beverages	7.8	3.8	2.3	0.8
Appetizers	5.9	3.1	0.8	0.0
Candy/Chocolate	10.7	5.7	1.5	1.7
Condiments/Relishes	8.2	6.6	0.8	1.6
Dessert Topping	5.2	2.6	0.0	0.4
Desserts	6.9	3.7	1.5	0.4
Fancy Bread (including mixes)	7.6	4.2	0.0	0.4
Fancy Cheese	7.9	4.4	0.8	0.8
Fancy Coffee/Tea/Cocoa	14.6	8.4	0.8	2.2
Fruit Juices/Cider	6.0	3.3	0.0	0.0
Fruits/Vegetables	7.0	3.7	0.0	1.2
Gourmet Gift Baskets	9.4	6.2	2.3	3.3
Ice Cream/Frozen Desserts	5.3	2.6	0.0	0.4
Meats/Game	7.6	3.8	1.5	1.2
Oil/Vinegar/Salad Dressing	8.9	6.2	0.8	0.4
Olives/Pickled Vegetables	6.3	3.1	0.0	0.4
Pasta/Rice/Grain/Cereal	8.5	5.3	0.0	0.4
Premium Snacks (nuts, chips)	7.9	3.5	1.5	0.4
Prepared Entrees	5.7	2.7	0.0	0.4
Preserves (jams, jellies)	7.6	5.1	0.0	0.4
Sauces (bases, mixes)	8.7	6.6	0.0	1.2
Seafood/Fish/Caviar	5.0	2.6	0.8	0.8
Seasonings (spices, herbs)	13.3	10.4	3.8	1.2
Soups/Stocks	7.7	4.8	0.0	0.4
Water/Soft Drinks	5.8	2.7	0.8	0.0

versed from 1999. Candy/Chocolate and Gourmet Gift Baskets were also purchased by at least nine percent of respondents.

The 2000 survey was the first to ask respondents who purchased specialty food or beverages online in the last six months where they made their most recent purchase. Approximately 90 percent of respondents specified one or more companies; 7.5 percent did not remember where they made their last purchase or could not recall the company's name, and 2.3 percent did not answer the question. For respondents who identified more than one company, only the first answer was included in this analysis.

Table 13. Source of Most Recent Online Specialty Food or Beverage Purchase (among those respondents who identified their most recent online purchase).

Company	% of Respondents (N=1846)
Omaha Steaks	5.3
Tavolo	4.2
Penzeys Spices	3.9
Wine.com	3.9
Harry & David	2.8
Cooking.com	2.4
Dean & Deluca	2.0
Gevalia	1.8
Godiva	1.8
Swiss Colony	1.7
Williams Sonoma	1.6
Dan's Chocolates	1.5
Hickory Farms	1.5
King Arthur Flour	1.4
MotherNature.com	1.4
Fulton Street Fish Market	1.2
WholeFoods.com	1.2
602 Other companies	60.4

The respondent population identified approximately 619 companies from which they made their most recent online specialty food or drink purchase. Because of misspellings and imprecise company names, this count cannot be precise. Seven companies (Omaha Steaks, Tavolo, Penzeys Spices, Wine.com, Harry and David, and Dean & Deluca) were the source of 24.5 percent of all purchases (Table 13). Ten additional companies (Gevalia, Godiva, Swiss Colony, Williams Sonoma, Dan's Chocolate, Hickory Farms, King Arthur Flour, MotherNature.com, Fulton Street Fish Market, and WholeFoods.com) accounted for an additional 15.1 percent of respondents' most recent purchases. The remaining 60.4 percent of responses were distributed among 602 companies. The mean value of the most recent purchase was $61.

As in 1999, the relationship between length of time on the Internet and online purchasing applied to specialty food and beverages as it did to other products and services. Additionally, respondents who purchased specialty food and beverages by catalog also purchased specialty foods online in greater proportion than those who had not purchased by catalog (Table 14). This relationship between catalog and online shopping has remained constant through the four surveys (White 1997, 1999).

Respondents were also asked how often they visited food and beverage sites and how often they searched online for recipes (Table 15). In general, respondents were frequent visitors to food and beverage sites, with more than half (52.3 percent) reporting that they do so at least weekly. An additional 23.2 percent visit food and beverage sites several times each month, and 11.3 percent visit monthly.

Table 14. Online Specialty Food and Beverage Purchases by Catalog Purchasing Activity and Length of Time on Internet (Percent of Respondents).

	Bought Specialty Food by Catalog (N=2085)	Did not Buy Specialty Food by Catalog (N=5035)
Less than 6 months	18.2	6.2
6 – 12 months	31.9	14.4
1 – 3 years	35.3	17.9
4 – 6 years	42.0	25.4
7 years or more	53.6	29.4

Table 15. Frequency of Food and Beverage Site Visits and Recipe Searches and Online Purchases.

	Visit food and/or beverage sites*		Search for recipes online**	
	% of Total (N=7932)	% Who Bought Food Online	% of Total (N=7947)	% Who Bought Food Online
Never	3.3	4.6	4.6	18.6
Less than once each month	9.9	14.5	11.8	21.0
About once each month	11.3	21.5	13.9	24.7
Several times each month	23.2	27.0	23.7	26.8
About once each week	12.3	25.5	13.0	25.1
Several times each week	23.7	30.3	22.7	28.7
At least once each day	16.3	32.4	10.4	28.8

*correlation coefficient = .98
**correlation coefficient = .61

They also searched online for recipes with great regularity. Approximately 46 percent of respondents searched for recipes at least once a week, and nearly 24 percent searched several times each month. Only 4.6 percent never looked for recipes on the Internet, and 25.7 percent did so once a month or less.

In 1999 there was no direct correlation between frequency of visits to food and drink sites and online specialty food and beverage shopping. In 2000 respondents who visited food and drink sites most frequently were most likely to have bought online. Further analysis is needed to better understand this relationship.

Demographic Comparisons of Selected Buyer Groups

As reported above, 81.4 percent of survey respondents made at least one online purchase of a food or non-food product within the previous six months and 25.8 percent made an online purchase of a specialty food or beverage product. Thus 31.7 percent of those who purchased any product online purchased a specialty food product. Table 16 lists the demographic variables and the percentage of the respondents in each classification.

The last three columns list the total number of respondents in each classification. For example, the third row indicates that 21.4 percent of respondents were male, 84.1 percent of the males made some online purchase within the previous six months, and 28.9 percent of the males purchased a specialty food or beverage product online. Among the males who had made any online purchase 34.4 percent had purchased a food or beverage product. The difference between males and females was statistically significant at the 99-percent level with respect to the percentage of all respondents making any purchase and of those who purchased food or beverage products. There was less of a significant difference between males and females who purchased food or beverages as a percentage of those who made any online purchase (e.g., significant at the 95-percent level).

A basic conclusion of the data presented in Table 16 is that except for region most of the variables appear to distinguish among people who have made online purchases of both food and non-food with a high level of statistical significance. Future analysis will attempt to develop these possible relationships further.

Summary

It is hoped that this report will be of interest to specialty food producers who are using the Internet to market their products to consumers. It provides information which is not otherwise readily available about the recent purchasing behavior of people who visit food and drink sites on the Internet. This is the fourth annual survey of Internet users who visit food sites and the reported results are based upon 7932 responses received during February and March of 2000.

This study has shown that the demographic profile of Internet users who visit food and drink sites online continues to differ from the Internet

Table 16. Demographic Variables Compared for Respondents Who Have Made Online Purchases.

	% of Respondent Population	% of Respondents who made at least one online purchase	% of all respondents who purchased specialty food or beverage products	% of online shoppers who purchased specialty food or beverage products
Total (N=7928)	100.0	81.4	25.8	31.7
Gender (N=7749)				
Female	77.7	79.5**	25.3**	31.3*
Male	21.4	84.1	28.9	34.4
Age (N=7854)				
17 or under	0.4	51.4**	5.7*	11.1**
18–20	1.1	65.1	8.4	13.0
21–24	3.1	77.2	12.2	15.8
25–34	17.4	82.8	26.4	31.9
35–44	26.9	83.4	30.2	36.2
45–54	29.6	82.8	27.8	33.5
55–64	15.8	78.8	22.9	29.0
65+	5.6	78.3	19.6	25.0
Education (N=7841)				
Less than H.S.	1.2	55.6**	6.7**	12.0**
High School	13.5	72.0	15.3	21.1
Some College or 2-year	36.1	80.9	24.8	30.8
College Degree	28.7	85.0	29.6	34.8
Advanced Degree	19.0	86.3	32.2	37.2
Income (N=7810)				
Less than $15,000	4.3	64.9**	19.2**	29.7**
$15,000–$24,999	7.5	72.5	15.4	21.1
$25,000–$34,999	11.9	77.6	21.8	28.1
$35,000–$44,999	13.5	80.5	24.4	30.3
$45,000–$54,999	13.5	82.9	24.0	28.8
$55,000–$64,999	11.1	85.8	26.2	30.5
$65,000–$74,999	10.3	87.7	31.1	35.6
$75,000–$99,999	13.1	89.0	36.1	40.4
$100,000–$149,999	9.6	90.0	36.9	40.9
More than $150,000	5.4	90.4	46.4	51.1
Rather not say	27.4	77.2	21.0	27.3
Country of Residence (N=7863)				
United States	94.2	82.5**	27.0**	32.6**
Canada	3.4	60.0	6.3	10.5
Europe	1.1	71.6	18.2	25.4
Oceana	0.6	58.3	16.7	18.6
Other	0.7	69.2	12.0	16.7

Table 16. (Continued)

	% of Respondent Population	% of Respondents who made at least one online purchase	% of all respondents who purchased specialty food or beverage products	% of online shoppers who purchased specialty food or beverage products
Region (N=7377)				
New England	8.9	84.3*	27.7*	32.8
Middle Atlantic	16.2	84.2	26.7	31.7
South Atlantic	17.1	81.7	28.0	34.3
East North Central	15.0	82.0	24.1	29.5
West North Central	6.3	78.3	25.9	33.0
East South Central	4.5	81.0	25.7	31.7
West South Central	9.4	80.8	26.9	33.2
Mountain	6.2	80.9	23.5	28.8
Pacific	16.3	84.9	30.4	35.7
Urban Influence Code (N= 7366)				
1. Metropolitan County—1 million or more	53.1	84.1*	29.4**	34.9**
2. Metropolitan County—less than 1 million	31.4	80.9	24.7	30.4
3. Adjacent to a large metro area and contains all or part of its own city of 10,000 or more	1.2	81.1	28.9	35.6
4. Adjacent to a large metro area and does not contain all or part of its own city of 10,000 or more	0.5	86.1	18.9	22.6
5. Adjacent to a small metro area and contains all or part of its own city of 10,000 or more	3.5	81.7	22.0	27.2
6. Adjacent to a small metro area and does not contain any part of a city of 10,000 or more	3.8	79.2	20.2	25.8
7. Not adjacent to a metro area and contains all or part of its own city of 10,000 or more	3.3	80.9	28.9	35.4
8. Not adjacent to a metro area and contains all or part of its own town of 2500 to 9999	2.5	76.8	21.6	28.2
9. Not adjacent to a metro area and totally rural, does not contain any part of a town of 2500 or more	0.7	81.3	22.9	28.2

*Statistically significant at 95% confidence level.

** Statistically significant at 99% confidence level.

population as a whole. Internet users who visit food and drink sites online are primarily female, middle-aged, and well educated. However, as with the greater Internet population, education and income levels for the survey respondents have declined as compared to respondents in 1999.

Most survey respondents (81.4 percent) have made at least one purchase of a food or non-food product over the Internet but in general they buy online infrequently. Only 22.5 percent of those who have bought online do so more than once each month. An additional 29.5 percent buy online monthly. Approximately 26 percent of respondents reported making an average of 4.4 specialty food or beverage purchases online in the previous six months. This represents a decline from the 30 percent of respondents who bought online in the 1999 survey but the frequency of online purchases, estimated total amount spent, and average single purchase increased in 2000. Fancy Coffee/Tea/Cocoa and Seasonings (spices, herbs) were the product categories most often purchased online.

For the first time this survey asked online food and beverage buyers the source of their most recent online purchase. While respondents reported purchases from approximately 619 companies, nearly 25 percent of their most recent purchases were made from 7 companies. An additional 10 companies accounted for 15 percent of their most recent purchases. The remaining 60 percent of purchases were distributed among 602 other companies. It appears that many of the top-ranked companies have national brand- or company-name recognition. These are the online specialty food businesses that often advertise their products and Web sites in national consumer magazines.

The percentage of respondents who made one or more catalog purchases in the preceding six months declined from previous years to 28 percent, nearly equaling the level of online shoppers. Traditional retail shopping continues to be the most common channel used for specialty food and beverage purchases, with 84 percent of respondents reporting an average of 13.7 purchases in the last six months. However, the mean traditional retail purchase was 60 percent smaller than the average online purchase.

Consumer online purchasing behavior continues to be directly related to their length of time using the Internet. Nearly 91 percent of survey respondents who had been online for 7 years or more made an online purchase within the previous six months, compared to 50 percent of those online for 6 months or less.

Additionally, the correlation between catalog and online shopping found in previous University of Maine research is supported by the data from this survey. Approximately twice as many respondents who purchased specialty food and beverage products by catalog also purchased specialty food online than did those who had not made a previous catalog purchase. This finding should be of interest to those firms that hope to move more of their non-retail sales to the Internet for the potential transaction cost savings. Catalog buyers appear to shop on the Internet in greater proportion than non-catalog buyers. In contrast to the 1999 survey results, frequency of visits to specialty food sites and/or frequency of online recipe searches appear to be directly correlated with the proportion of those who make online purchases.

This report provides a general description of the demographic characteristics of individuals who visit specialty food and drink sites and those who make online purchases. It is intended to be of use primarily to members of the specialty food industry and those who are interested in trends within the emerging Internet marketing channel. A forthcoming report will analyze consumer responses to questions concerning why they chose to make their most recent online purchase. Survey data also will be analyzed further to explore relationships between variables and predictors of likely purchase behavior.

References

Chu, J., M. Sun, S. Rastogi, and A. Berzins. 1999. "The Year 2000 Online Retailing Agenda." http://www.bain.com/marketing /insights/mainspring-retail2000.html. December.

CyberAtlas. 1999. "Increase Seen in Internet Shopping." http://cyberatlas.internet.com/big_picture/demographics/article/0,1323,5901_238221,000.html.

eMarketer. 2000. "ECommerce B2C Report." http://www.emarketer.com/estats/sell_cons.html. April.

Ernst & Young. 2000. "Global Online Retailing: An Ernst & Young Special Report." *Stores*

January.

Ghelfi, L., Private Correspondence, 10 April 2000.

Ghelfi, L. and T. Parker. 1997. "A County-Level Measure of Urban Influence." *Rural Development Perspectives* 12(June): 32–41.

Kushner, M. 1996. *Morris H. Kushner on Specialty Foods.* Cumberland Enterprises, Inc. Brooklyn, N.Y.

The Harris Poll. 1999. "Online Population Growth Surges to 56 percent of All Adults." http://www.harrisinteractive.com/harris_poll/index.asp?PID=9. 22 December.

Mediamark Research Inc. "CyberStats, Fall 99." http://www.mediamark.com/cfdocs/MRI/cs_f99a.cfm.

NUA Internet Surveys. 2000. Untitled Web page. http://www.nua.ie/surveys/how_many_online/index.html.

US Census Bureau. 1999. "State Population Estimates and Demographic Components of Population Change: July 1, 1998 to July 1, 1999." http://www.census.gov/population/estimates/state/st-99-1.txt. 29 December.

White, G. 1999 "Online Specialty Food Consumers in 1999: Who They Are and What They Buy." Department of Resource Econ. and Policy Staff Paper, REP 482, Maine Ag. and Forest Exp. Sta., Orono. October.

White, G. 1997. "Online Specialty Food Consumers in 1997: Who They Are and What They Buy." Northern New England Product Development & Marketing Center. Food Products Initiative, Staff Paper, F.I. 014. October.

White, G. 1996. "An On-Line Survey of Food and Beverage Consumers on the Internet: An Evaluation of the Survey Methodology." *Marketing Research On-Line* 1: 39–59. http://msc.city.unisa.edu.au/msc.jems/MRO_Vol_One.html.

White, G. and T. Cheng. 1996. "Purchase Behavior of Online Specialty Food and Drink Consumers: Results of an Electronic Survey." *Proceedings.* Allied Academies Annual Meeting: Marketing Studies Section, Maui, Hawaii. October.