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Factors Affecting U.S. Pork Consumption

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Abstract

Pork ranks third in annual U.S. meat consumption, behind beef and chicken, averaging 51 pounds per person. The Continuing Survey of Food Intakes by Individuals (CSFII) indicates that most pork is consumed at home. Pork consumption is highest in the Midwest (58 pounds), followed by the South (52 pounds), the Northeast (51 pounds), and the West (42 pounds). Rural consumers eat more pork (60 pounds) than urban/suburban consumers (49/48 pounds). Pork consumption varies by race and ethnicity. Blacks consume 63 pounds of pork per person per year, Whites 49 pounds, and Hispanics 45 pounds. Higher income consumers tend to consume less pork. Everything else remaining constant, demographic data in the CSFII suggest future declines in per capita pork consumption, as increases of Hispanics and the elderly—who eat less pork than the national average—enlarge their shares of the population. However, total U.S. pork consumption will grow because of an expansion of the U.S. population.

Keywords: Pork, consumption, fresh pork, processed pork, per capita use, ethnicity, region, gender, age, income.

Acknowledgments

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Introduction

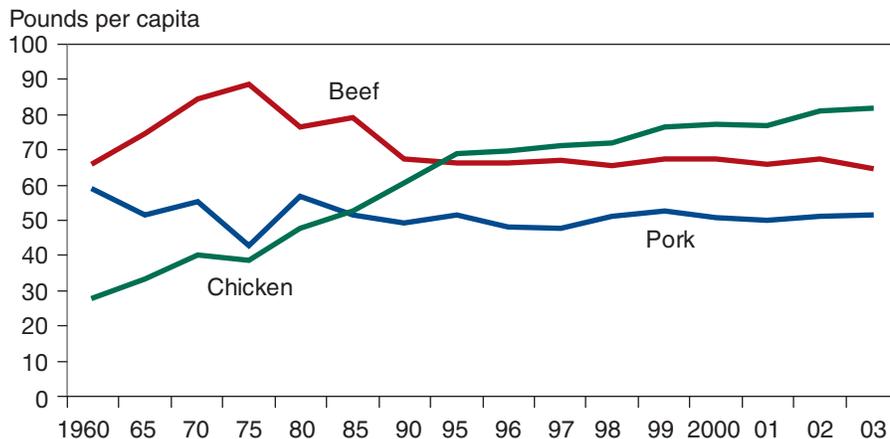
Although pork is not consumed by certain populations or in certain regions, it is one of the preferred meats in the world and the United States, ranking first in per capita meat consumption in the world and third in the United States (fig. 1). It accounts for approximately 50 percent of daily meat protein intake worldwide (*U.S. Pork Manual, Today's Pork Industry*). In 2003, pork accounted for almost 42 percent of red meats (beef, pork, lamb, and veal) consumed in the United States.

Americans' consumption of pork helps fulfill the daily recommended amount of protein. While a great deal is known about pork's nutritional value and its production, much less is known about its consumption. Very little analysis has been done on who eats various pork products in the United States, how much is eaten, and where. Analysts at USDA's Economic Research Service (ERS) have conducted studies on Americans' consumption of nonalcoholic beverages and various fruits and vegetables, grains, and other foods, but this is the first time pork consumption has been analyzed from a similar perspective. Understanding the basic factors underlying pork consumption will help ERS improve its analysis of supply and demand shifts in the U.S. pork market, and will enable the industry to design effective marketing strategies and to predict future demand. For example, the changing racial/ethnic landscape in the United States and the "graying" of Americans will probably reduce future pork demand (Lin et al., 2003); Hispanics, the fastest growing ethnic group, eat less pork than Blacks or Whites, and as people age they reduce their food consumption.

This report presents the results of an analysis of the most recent data from USDA's Continuing Survey of Food Intakes by Individuals to determine the factors affecting fresh and processed pork product consumption (see box [Data and Methodology](#)). A descriptive analysis was conducted on the distribution of pork consumption across different marketing channels, geographic regions, and population groups.

Figure 1

U.S. per capita consumption of pork, beef, and chicken, selected years



Source: U.S. Department of Agriculture, Economic Research Service, 2004.

Data and Methodology

Since the 1930s, periodic surveys of household and individual food consumption in the United States have been designed and administered by the United States Department of Agriculture (USDA). The most recent are the 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals (CSFII), conducted by USDA's Agricultural Research Service (ARS). Data from the 1994-96 CSFII are representative of noninstitutionalized persons living in the 50 States and Washington, DC. In 1998, an identical survey was conducted to augment the data, the CSFII sample for children. In 2002, CSFII was integrated into the National Health and Nutrition Examination Survey administered by the Department of Health and Human Service's National Center for Health Statistics.

The CSFII surveys were administered to people of all ages to collect dietary intake data for 2 nonconsecutive days, 3 to 10 days apart. In each interview, participants were asked to recall what they had eaten over the last 24 hours. The 1994-96 CSFII contains responses from 15,303 persons who answered questions about the types and amounts of food consumed. The 1998 CSFII survey collected data on 5,559 children up to 9 years of age. For more information about the CSFII, visit the website at www.barc.usda.gov/bhnrc/foodsurvey/

The respondents provided a list of foods consumed, as well as information on how much of each food was eaten, and where and when each food was eaten. Several categories were used for coding locations where the food was purchased. An array of economic, social, and demographic characteristics of individuals—such as respondents' level of education, household income, race, age, and gender—was also collected. This rich database can be used for estimating the market and consumption distribution of a selected food by numerous delineations.

U.S. Pork Consumption Patterns

Pork consumption has fluctuated slightly in the United States, with per capita consumption declining by 10 percent between 1960 and 2003 (table 1). In 1960, per capita pork consumption averaged approximately 59 pounds. Consumption actually peaked in 1944 at 81.1 pounds, fell to 48 pounds per person in 1997, and rebounded to 53 pounds in 1999. Per capita fluctuation from 1999 to 2003 varied only slightly (USDA, ERS, 2004). The occasional observed declines in consumption are usually associated with higher pork prices (USDA, WASDE, 1998-2002). Each American consumed an average of 51 pounds of pork per year, retail product, during 1994-96 and 98 (USDA, ERS, 2004), or 2 ounces per day.¹

The recent growth in the hog industry was partly due to advances in technology (McBride and Key, 2003; Boehlje, 1992). Technology has been introduced into the hog industry through structural change, genetics, and better management and breeding practices. This has led to pork and pork products of consistently high quality (Martinez and Zering, 2004). As the seventh-largest U.S. farm commodity in cash receipts, the pork sector continues to produce large quantities of pork products, estimated at a record 20.5 billion pounds in 2004 (USDA, WASDE, 2004). Total pork consumption has increased over the past years and is expected to continue increasing as the U.S. population grows.

We used the 1994-96 and 1998 data to estimate the distribution of pork consumption by economic and demographic characteristics. The per capita-consumption of 51 pounds (retail product) was multiplied by the market

¹From the disappearance statistics, 51 pounds of pork consumption per capita per year, retail weight, is approximately 66 pounds of carcass weight or 48.1 pounds of boneless pork available for consumption. Using this conversion means that there are 2.11 oz per day of boneless pork available to U.S. consumers. We have no data on how much pork is purchased bone-in or boneless.

Table 1—U.S. per capita consumption, pork and all meats, selected years

Year	Fresh and processed pork	Fresh and processed beef	Fresh and processed chicken
<i>Pounds, retail weight equivalent</i>			
1960	58.7	64.7	28.0
1965	51.5	74.7	33.4
1970	55.4	84.4	40.1
1975	42.9	88.2	38.7
1980	56.8	76.4	47.4
1985	51.5	79.0	52.5
1990	49.4	67.5	60.6
1995	51.5	66.4	68.9
1996	48.1	67.0	69.7
1997	47.6	65.5	71.4
1998	51.3	66.5	71.9
1999	52.5	67.3	76.4
2000	50.8	67.5	77.4
2001	50.0	66.0	77.0
2002	51.3	67.5	81.0
2003	51.7	64.9	82.0

Source: U.S. Department of Agriculture, Economic Research Service.

share (which is measured in percent) for each economic and demographic characteristic to derive per capita pork consumption by characteristics.

Calculating Per Capita Shares

One way to describe the various consumption shares is by converting the survey shares into information already familiar to those in the agricultural industry: per capita disappearance. The per capita use data presented in the tables for 1994-96 and 1998 were calculated by distributing the ERS food disappearance data for pork for those years, using the CSFII survey data as distribution factors and then dividing by the average population from 1994-96 and 1998. This presents the share of consumption described in the survey in terms of pork consumption per person.

Processed Market Dominates U.S. Pork Consumption

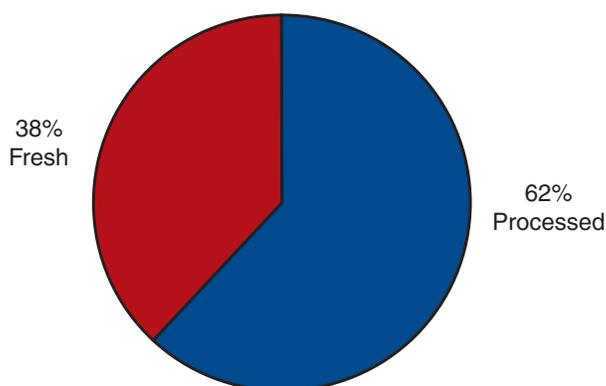
In this study, pork is separated into two main product types, fresh and processed. Fresh products are those muscle cuts of pork purchased from wholesale markets by food services or from grocery meat counters directly by consumers, cooked just before eating. Processed pork products are transformed by grinding, curing, smoking, or seasoning prior to wholesale or retail sale. Both categories can include frozen products.² The 1994-96 and 1998 CSFII data indicate that 38 percent of the pork consumed was fresh and 62 percent processed. Applied to the 51 pounds per capita pork consumption noted earlier, Americans consumed, on average, 19 pounds of fresh pork and 32 pounds of processed pork per year in 1994–96 and 1998. (fig. 2).

The consumption of individual pork cuts within each main product type can also be estimated with CSFII data. Individual cuts in the fresh pork category included pork chops, pork steaks, ribs, fresh ham, other fresh pork, and

²Because processed products are excluded from country-of-origin labeling regulations that are under discussion, there are proposed specific guidelines delineating the specific regulatory definition of processed products. These guidelines may not exactly match our definitions here. Frozen products are considered as belonging to either the muscle cuts category we are calling “fresh” or to the processed meat category.

Figure 2

U.S. pork consumption: fresh and processed pork



Processed consists of canned and dehydrated. Pie chart divisions show percent of population consuming at least one type of pork. See text [Calculating Per Capita Shares](#) for an explanation of methodology.

Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

pork parts (such as fat backs, cracklings, ears, tails, heads, feet, neck bones, salt pork, chitterlings, liver, rinds, pork skin, and tripe). The processed pork category was disaggregated into lunch meats, hot dogs, bacon, sausage, smoked ham, and other processed pork.

Pork chops held the largest market share for all identifiable fresh cuts, followed by fresh ham, pork steak, and pork ribs (table 2). Over 28 percent of the fresh pork eaten by Americans was pork chops, while fresh ham accounted for 13 percent. More than a third of all fresh pork consumed was nonspecified pork cuts. Processed pork dominates U.S. pork use. The average person consumed more smoked ham (14.4 pounds) than any other processed pork product. The second-most-consumed processed pork products were smoked sausage (6.5 pounds) and processed nonspecified pork (4.9 pounds). Bacon and lunchmeat (including hot dogs, etc.) were the third- and fourth-most-consumed processed pork at 3.2 and 2.8 pounds per person.

Lower Income Households Report More Pork Consumption

In the CSFII survey, households were classified into three income brackets using the Federal poverty guideline. For reference, the Census Bureau reported that the weighted average poverty income threshold for a four-person household was \$15,961 annually during 1994-96 and 1998, derived from the *U.S. Department of Commerce Statistical Abstract of the United States, 2000*). The poverty guideline was developed by the U.S. Dept. of Health and Human Services for the implementation of Federal food programs. Some of these programs, such as the Food Stamps Program, have used annual household income at 130 percent of the poverty level to determine eligibility. The present study uses 130 percent of the poverty-level threshold to define the low-income category—about 19 percent of U.S. households. About 39 percent of households had income exceeding 350 percent of the poverty level (called high-income), while 42 percent of households had income falling between 130 and 350 percent of the poverty level (middle-income).

The CSFII results indicate that consumers in high-income households consumed less pork per capita, both fresh and processed, than did those in low- and middle-income households (table 3 and fig. 3). Per capita consumption of fresh pork was highest among low-income consumers, and

Table 2—Per capita consumption of pork by type

	Total fresh	Chops	Steak	Ribs	Fresh ham	Fresh nonspecified	Offal
Share of total pork (percent)	37.7	10.8	3.7	3.7	4.9	13.1	1.6
Pounds per person (pounds)	19.2	5.5	1.9	1.9	2.5	6.7	0.8
	Total processed	Lunchmeat	Bacon	Sausage	Smoked ham	Processed nonspecified	
Share of total pork (percent)	62.3	5.5	6.3	12.7	28.3	9.6	
Pounds per person (pounds)	31.8	2.8	3.2	6.5	14.4	4.9	

Source: Derived by ERS using data from 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals, U.S. Department of Agriculture, Agricultural Research Service, 2000, and ERS supply and utilization calculations.

of processed pork it was highest among middle-income consumers.

Non-Hispanic Blacks Are the Predominant Pork Consumers

The 1994-96 and 1998 CSFII were based on the 1990 Census, which contains data on race and ethnicity.³ When people are grouped by ethnicity, different patterns of income and consumption at home and away from home emerge for pork consumption. Non-Hispanic Blacks accounted for approximately 13 percent of the U.S. population, yet on a per capita basis, Blacks ate over 63 pounds of pork annually, 14 pounds more than Whites (table 4). Blacks ate almost 16 percent more processed pork and 58 percent more fresh pork than Whites. Among Blacks, processed pork was more popular than fresh pork (38 vs. 25 pounds).

³The questions used to ascertain respondents' race/ethnicity were the following: which of the groups on this card best describes (NAME)'s race: (1) WHITE, (2) BLACK, (3) ASIAN, (4) AM. INDIAN, (5) OTHER? Do any of the groups on this card represent (NAME)'s national origin: (1) MEXICAN, (2) PUERTO RICAN, (3) CUBAN, (4) OTHER SPANISH / HISPANIC, (5) NONE OF ABOVE?

Table 3—U.S. consumption of fresh and processed pork by household income as a percentage of poverty threshold

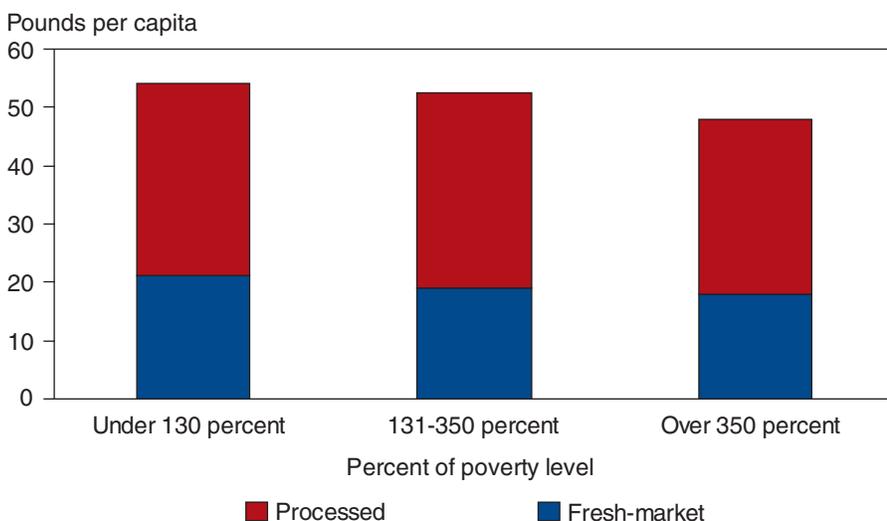
Item	Population	All pork		Fresh-market		Processed	
	Percent	Percent	Pounds per capita	Percent	Pounds per capita	Percent	Pounds per capita
Income/poverty threshold ratio							
Under 130 percent	19.2	20.4	54.0	21.4	21.2	19.7	32.8
131-350 percent	41.8	42.9	52.4	41.6	18.9	43.8	33.5
Over 350 percent	39.0	36.6	48.0	37.0	18.0	36.5	29.9

Processed consists of canned and dehydrated. See text [Calculating Per Capita Shares](#) for an explanation of methodology.

Source: U.S. Department of Agriculture, Economic Research Service, using data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Figure 3

Pork consumption by income



Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

The CSFII data indicate that Hispanics ate pork at about the same rate as their share of the population implies and had a preference for fresh pork. Other races, including Asians, represented 4 percent of the U.S. population and consumed about the same amount of pork their population implies. When comparing Americans' pork intake by type (table 4 and fig. 4), the CSFII data reveal that people of other races, particularly Asians, consumed relatively more fresh pork per capita than Whites, Blacks, or Hispanics, while Blacks and Whites consumed relatively more processed pork than Hispanics or other races.

At-Home Use Dominated Pork Consumption

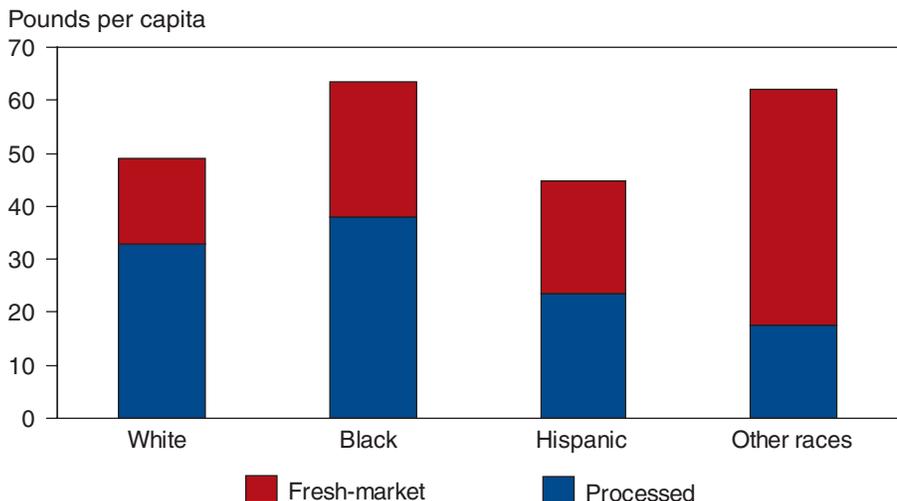
In the CSFII, the source of food is coded in several categories. We delineate “at home” and “away from home” according to where a food was obtained or prepared, not where it was consumed. See box [Food Sources: At-Home or Away-From-Home](#), for further discussion of this delineation.

Table 4—U.S. consumption of fresh and processed pork by race/ethnicity

Item	Population	All pork		Fresh-market		Processed	
	Percent	Percent	Pounds per capita	Percent	Pounds per capita	Percent	Pounds per capita
Race/ethnic origin:							
White, non-Hispanic	72.5	69.8	49.0	61.1	16.0	74.8	33.0
Black, non-Hispanic	12.6	15.3	63.4	16.8	25.3	15.0	38.1
Hispanic	10.6	9.9	44.9	11.9	21.3	7.8	23.5
Other races	4.4	5.1	61.9	10.3	44.5	2.4	17.5

Processed consists of canned and dehydrated. See text [Calculating Per Capita Shares](#) for an explanation of methodology. Source: U.S. Department of Agriculture, Economic Research Service, using data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Figure 4
Pork consumption by race/ethnicity



Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

CSFII data reveal that about 78 percent of all pork was purchased at retail stores and is thus considered at-home food (table 5 and fig. 5). Fresh pork purchased at retail stores for home use accounted for 82 percent of all fresh pork, while 76 percent of all processed pork was purchased for home meal preparation. Americans consumed approximately 16 pounds of fresh pork and 24 pounds of processed pork per person at home during 1994-96 and 1998.

Restaurants (including the fast food sector) accounted for the bulk of fresh and processed pork consumed away from home, representing 15 percent of fresh pork use and 18 percent of processed pork use. In away-from-home markets, Americans consumed more processed than fresh pork (8 pounds vs. 4 pounds), on average.

Non-Hispanic Blacks Are Big Consumers of Fresh Pork at Home

Blacks ate more pork than other consumers and ate 82 percent of their total pork at home, compared with 76 percent for Whites (table 6). Blacks consumed 92 percent of their fresh pork at home vs. 78 percent for Whites and 85 percent for Hispanics. Hispanics consumed about 3 percent less

Food Sources: At Home or Away From Home

Food for consumption at home is generally obtained at a retail store such as a supermarket, grocery, or convenience store. Food consumed away from home is generally purchased from commercial foodservice establishments, but can also be obtained from such places as school cafeterias, community feeding programs, or child/adult care centers. Both at-home and away-from-home food can be consumed at or away from home. For example, a bagged lunch prepared at home and consumed at work is classified as at-home food. A commercially prepared pizza delivered and consumed at-home is classified as away-from-home food. Other away-from-home eating places include fast food restaurants, self-service establishments, carryout places, restaurants that have wait staff, and school cafeterias, including those at daycare facilities and summer camps. "Others" is a catch-all category including places to eat or obtain food, such as community feeding centers, bars/taverns, and vending machines.

Table 5—U.S. consumption of fresh and processed pork at home and away from home

Item	All pork		Fresh-market		Processed	
	<i>Percent</i>	<i>Pounds per capita</i>	<i>Percent</i>	<i>Pounds per capita</i>	<i>Percent</i>	<i>Pounds per capita</i>
Food sources:						
At home	77.8	39.8	81.8	15.7	75.8	24.1
Away from home	22.2	11.2	18.2	3.5	24.2	7.7
Restaurant	17.2	8.7	15.4	3.0	18.1	5.8
Others	5.0	2.5	2.8	0.5	6.1	1.9

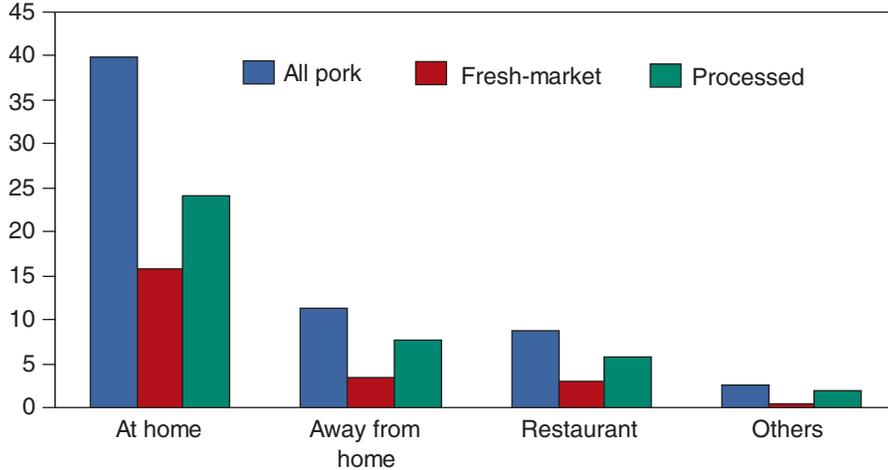
Processed consists of canned and dehydrated. See text [Calculating Per Capita Shares](#) for an explanation of methodology.

Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Figure 5

Pork consumption by eating location

Pounds per capita



Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

processed pork at restaurants than Whites or Blacks. However, there is little difference in the distribution of processed pork identified as away-from-home by Blacks, Whites, or Hispanics, at 24 pounds for each group.

Low-Income Consumers Eat Pork Mainly at Home

Consistent with findings that eating away from home rises with income, we find that low-income consumers (those with household income in the 0-130 percent of poverty level) consumed 84 percent of their fresh pork at home and 16 percent at restaurants. Low-income consumers ate less fresh or processed pork products at restaurants than other groups (table 7). High-income consumers ate greater proportions of both fresh and processed pork at restaurants than other consumers.

Pork Consumption Strongest in the Midwest

The CSFII data are representative of the four Census regions that make up the U.S. total population—Northeast (20 percent of the population), Midwest (23 percent), South (35 percent), and West (22 percent) (fig. 6). The data for the 1994-98 survey period show that the Northeast region’s share of pork was proportionate to its population share, implying that per capita pork consumption in the Northeast is the same as the national average of 51 pounds (table 8 and fig. 7). The share of pork consumption in the West was below its population share, consistent with data showing that each person in the West ate less (42 pounds) than the national average. Consumers in the Midwest and South ate the most pork, consuming 58 and 52 pounds of pork per capita, respectively. This regional pork consumption pattern mirrors the regional pattern of pork production. As illustrated in the map of hogs and pigs (fig. 8), the dominant hog producing State in the

Table 6—U.S. pork consumption by race

Item	All pork	Fresh-market	Processed
	<i>Percent</i>		
Whites, non-Hispanic			
Food sources:			
At home	76.4	78.0	76.0
Away from home	23.6	22.0	24.0
Restaurant	18.8	19.0	18.5
Others	4.8	3.0	5.5
Blacks, non-Hispanic			
Food sources:			
At home	82.0	91.5	76.1
Away from home	18.0	8.5	23.9
Restaurant	13.6	6.3	18.1
Others	4.4	2.2	5.8
Hispanics			
Food sources:			
At home	80.6	85.1	75.8
Away from home	19.4	14.9	24.2
Restaurant	12.9	11.0	15.2
Others	6.5	3.9	9.0

Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Table 7—U.S. pork consumption by income

Item	All pork	Fresh-market	Processed
	<i>Percent</i>		
Low-income pork consumption (< 130 percent of poverty threshold)			
At home	83.9	90.3	79.3
Away from home	16.1	9.7	20.7
Restaurant	11.1	7.0	14.4
Others	5.0	2.7	6.3
Middle-income pork consumption (130 - 350 percent of poverty threshold)			
At home	79.9	84.7	77.5
Away from home	20.1	15.3	22.5
Restaurant	15.5	13.0	16.6
Others	4.6	2.3	5.9
Upper-income pork consumption (> 350 percent of poverty threshold)			
At home	72.0	73.7	71.9
Away from home	28.0	26.3	28.1
Restaurant	22.6	22.8	21.8
Others	5.4	3.5	6.3

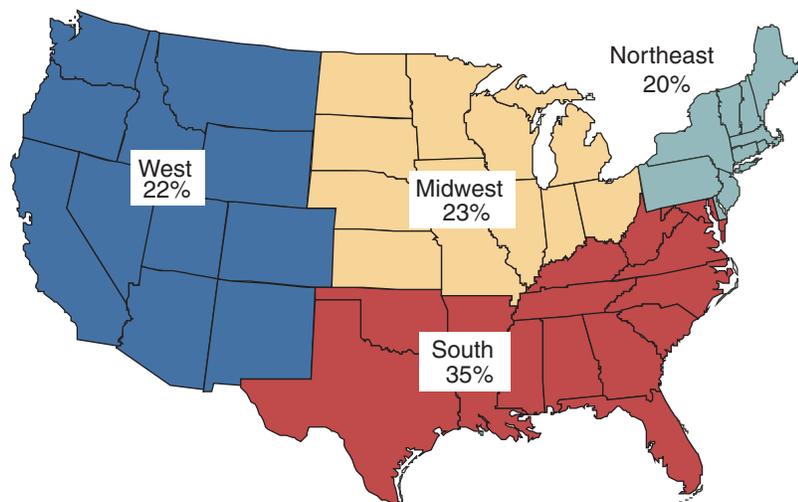
Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

South is North Carolina, while dominance is shared among Iowa, Minnesota, Illinois, and Indiana in the Midwest.

Rural Consumers Eat More Pork, Especially Processed

CSFII data identify whether a consumer lived in a metropolitan city (urban), suburban, or rural area according to the 1990 Census. Forty-seven percent of Americans lived in suburban areas, 32 percent lived in cities, and 21 percent lived in rural areas. Per capita, rural consumers tended to eat more pork, particularly processed pork (38 pounds vs. 31 pounds for suburban consumers and 29 pounds for city dwellers) (table 9 and fig. 9). Suburban consumers ate less fresh pork (17 pounds) than city and rural dwellers (20 and 21 pounds).

Figure 6
U.S. population by census region



Source: Bureau of Census, U.S. Department of Commerce.

Table 8—Per capita pork consumption by region

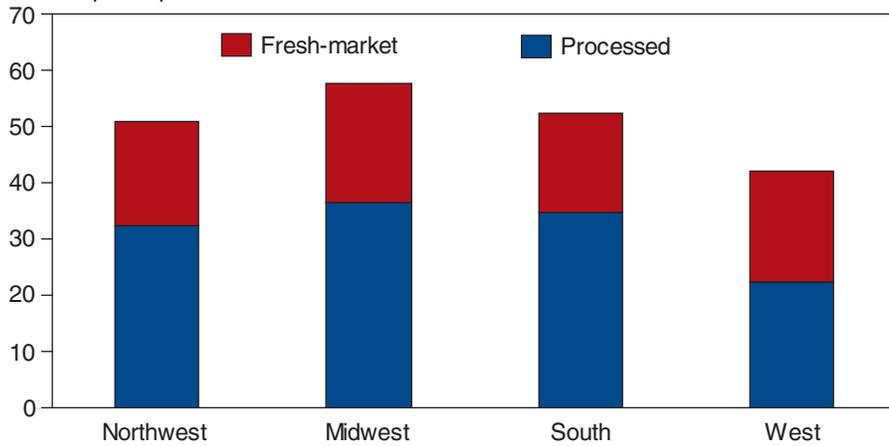
Item	Population		All pork		Fresh-market		Processed	
	Percent	Percent	Percent	Pounds per capita	Percent	Pounds per capita	Percent	Pounds per capita
Northeast	19.6	19.4	19.4	50.8	18.9	18.3	19.9	32.5
Midwest	23.5	26.6	26.6	57.7	26.0	21.1	26.9	36.6
South	34.9	35.4	35.4	52.3	32.2	17.5	37.9	34.8
West	22.0	18.5	18.5	42.0	22.8	19.7	15.3	22.3

Processed consists of canned and dehydrated. See text [Calculating Per Capita Shares](#) for an explanation of methodology. Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Figure 7

Pork consumption by region

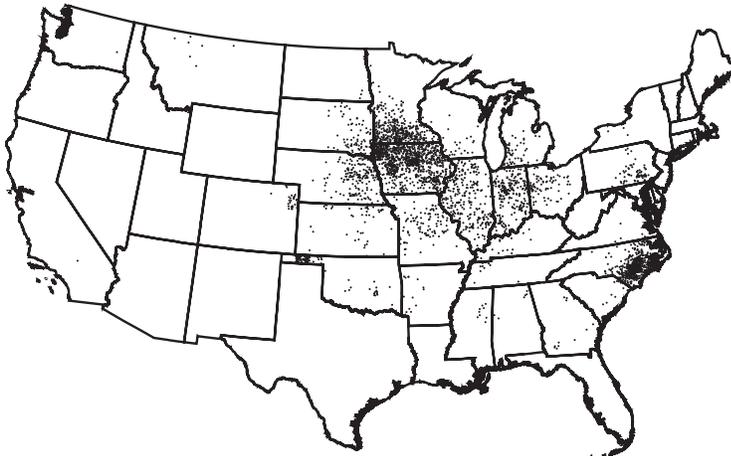
Pounds per capita



Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Figure 8

Hogs and pigs inventory: 2002



1 Dot = 15,000 hogs and pigs.

U. S. total is 64,405,103 hogs and pigs.

Source: U.S. Department of Agriculture, Economic Research Service, based on data from National Agricultural Statistics Service.

Table 9—Rural/urban per capita pork consumption

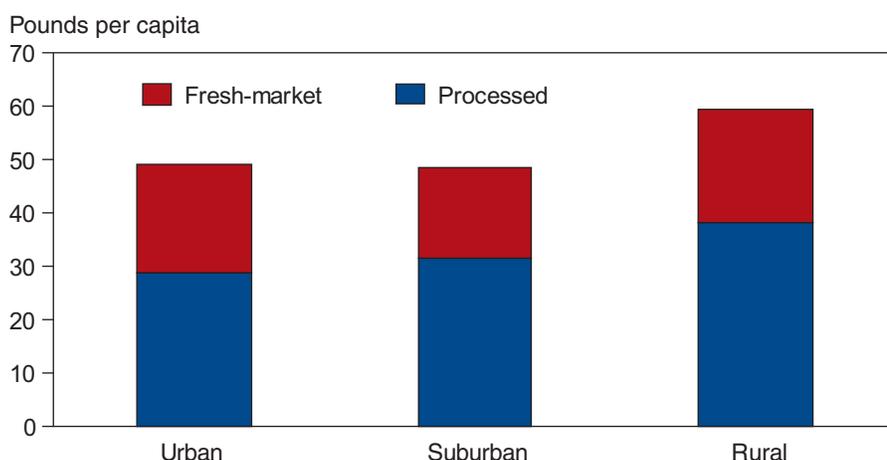
Item	Population	All pork		Fresh-market		Processed	
	<i>Percent</i>	<i>Percent</i>	<i>Pounds per capita</i>	<i>Percent</i>	<i>Pounds per capita</i>	<i>Percent</i>	<i>Pounds per capita</i>
Urban	31.8	30.6	49.2	34.1	20.4	28.6	28.8
Suburban	47.0	44.5	48.4	42.1	17.0	46.1	31.4
Rural	21.2	24.9	59.5	23.8	21.3	25.3	38.2

Processed consists of canned and dehydrated. See text [Calculating Per Capita Shares](#) for an explanation of methodology.

Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Figure 9

Pork consumption by urban/rural location



Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Middle-Aged Men Eat the Most Pork

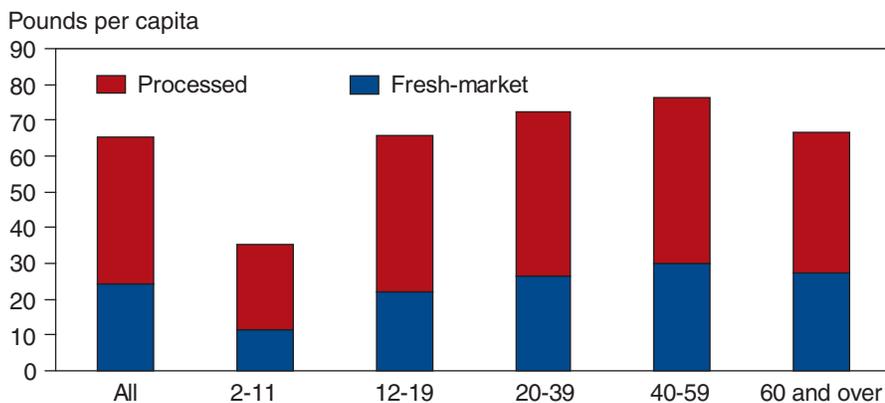
According to the CSFII data, pork consumption varied greatly by gender (65 pounds for men vs. 37 pounds for women (table 10)). Men consumed 24 pounds of fresh and 41 pounds of processed pork (fig. 10), compared with 14 and 24 pounds consumed by women (fig. 11). As expected, pork consumption rose with age initially and then declined among senior citizens (age 60 and over). Men aged 40-59 ate more than 76 pounds of pork (30 pounds of fresh and 46 pounds of processed). Women of the same age group consumed 42 pounds (17 pounds fresh and 25 pounds processed).

Table 10—Market distribution and per capita pork consumption

Gender and age	Population	All pork	Fresh-market		Processed		
	Percent	Percent	Pounds	Percent	Pounds	Percent	Pounds
Male, years:	49.0	62.4	65.2	62.7	24.3	62.6	40.9
2-11	9.0	6.1	35.2	5.4	11.4	6.7	23.8
12-19	5.9	7.5	65.6	6.9	22.2	8.0	43.4
20-39	16.0	22.8	72.2	22.4	26.6	22.8	45.6
40-59	11.6	17.3	76.5	18.4	30.1	16.8	46.3
60 and over	6.7	8.7	66.9	9.6	27.2	8.3	39.6
Female, years:	51.0	37.6	37.4	37.3	13.9	37.4	23.5
2-11	8.5	4.8	28.9	3.5	7.8	5.6	21.1
12-19	5.7	4.0	34.9	3.4	11.3	4.2	23.6
20-39	15.9	12.1	38.4	12.8	15.3	11.5	23.1
40-59	12.1	10.0	42.0	10.6	16.6	9.6	25.4
60 and over	8.6	6.8	39.8	6.9	15.2	6.6	24.6

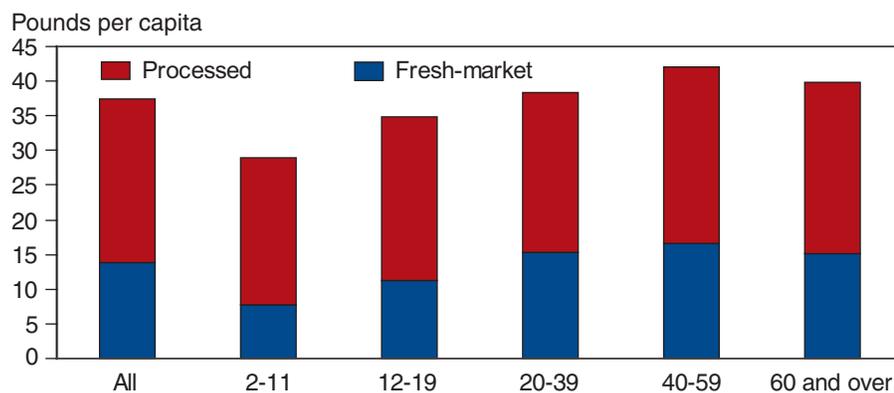
Components may not sum vertically due to rounding. Processed consists of canned and dehydrated. Percent of population consuming at least one food at the specific location is identified. See text [Calculating Per Capita Shares](#) for an explanation of methodology. Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Figure 10
Pork consumption by males by age



Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Figure 11
Pork consumption by females by age



Source: U.S. Department of Agriculture, Economic Research Service, based on data from Agricultural Research Service, 2000: 1994-96 and 1998 Continuing Survey of Food Intakes by Individuals.

Implications for the Future

What do consumption patterns tell us about the future of the hog industry? Although eaten less frequently than poultry or beef, pork is and will continue to be an important source of protein for Americans. Using USDA's CSFII survey data, we described pork consumption in terms of who eats pork and pork products, along with where and how much. Such information, while useful to retailers, processors, hog producers, and others investigating the health and structure of the industry, has not been readily available. Some important findings of this study include:

- Most of the pork eaten by consumers was purchased at retail stores and consumed at home.
- The South had a higher market share of pork consumption than other regions, thanks to its large population base and its above-average consumption. However, on a per capita basis, Midwest consumers ate 58 pounds of pork, followed by 52 pounds in the South, 51 pounds in the Northeast, and 42 pounds in the West.
- Black consumers had the highest per capita pork consumption overall, but other ethnic groups, especially Asians, consumed more fresh pork than others on a per capita basis. White consumers ate less fresh pork but more processed pork than Hispanics.
- Higher income consumers ate less pork than lower income consumers. As eating out has become more popular, higher income consumers have eaten a larger portion of pork away from home than lower income consumers.
- Men consumed 74 percent more pork than women, on a per capita basis. Per capita pork consumption was highest for those aged 40-59 and then declined with age. Older Americans typically eat less food than younger ones due to lower activity levels and energy needs, and dine out less frequently (Ballenger and Blaylock, 2003).

It is difficult to say whether these same characteristics of pork consumption will continue, given changes in prices relative to other meats, the composition of products offered, health concerns, and many other factors affecting consumption or production. Some of the above findings suggest that, holding other factors constant, per capita pork consumption is likely to fall over the next two decades. Other ERS research shows that expenditures on away-from-home food now account for about 47 percent of total U.S. food expenditures, and the National Restaurant Association projects away-from-home food expenditures will exceed at-home food expenditures by 2010 (Davis and Stewart, 2002). Because eating out is on the rise, it is expected that future consumption of pork away from home will rise while pork consumed at home will decline, which may affect the mix of products offered in both away-from-home and at-home markets. However, because pork is less often eaten in away-from-home markets, the result may be that per capita consumption may decline relative to other meats.

Eating pork seems to be associated with the age of the consumer. As people age, their consumption patterns change. Will younger people choose meats

other than pork as they age? Will middle-aged men begin to curb their eating habits as they grow older? ERS research shows that as people age they eat less protein and eat out less often (Lin et al., 2003). As the U.S. population “grays,” per capita pork consumption may decrease.

Over the next two decades, the Hispanic population will claim a much larger share of the U.S. population, while growth in the White population will slow. As Hispanics become a larger portion of the population, their lower per capita consumption of pork, assumed to continue at the same level, will bring down total per capita consumption. This population dynamic could also affect the distribution of pork consumption by product type—compared to Hispanics, White consumers prefer processed over fresh pork. It remains to be seen if the pork industry can profit from this diversity by creating products that appeal to changes in preferences and Americans’ love of novel taste experiences. Even so, while ERS research indicates future per capita pork consumption is likely to fall, the total pork market and total pork consumption will likely expand due to an anticipated population growth of 50 million people in the next two decades (Lin et al., 2003).

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