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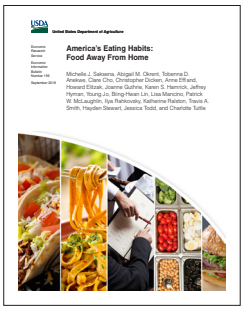

America's Eating Habits: Food Away From Home

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What Is the Issue?

Over the past several decades, Americans have grown to rely on the convenience of foods prepared outside of the home. Unfortunately, food away from home (FAFH) often contains fewer fruits and vegetables and have more calories, fat, and sodium than food prepared at home (FAH), and consuming FAFH is associated with obesity. Recently passed labeling legislation aims to help consumers make healthier FAFH choices and to encourage FAFH suppliers to produce more healthful options. To explore Americans' eating away from home behavior, this report presents research on three broad FAFH topics: (1) food choices and availability; (2) nutrition and diet quality; and (3) food policies, including menu labeling and food assistance programs.

What Did the Study Find?

Food choices and availability of FAFH. Over the past 30 years, FAFH's share of U.S. households' food budgets and total food spending grew steadily. FAFH options also became more widely available as growing numbers and types of businesses—including grocery stores—served prepared foods. Apart from the Great Recession (2007-09), these trends continued uninterrupted from 1987 to 2017, but the changes were not uniform across socioeconomic groups or business types.

- Spending on FAFH surpassed spending on FAH for the first time in 2010, increasing its share of total food spending from 44 percent (30 years prior) in 1987 to 50.2 percent in 2010.
- Higher income households spent more on FAFH and bought it more frequently than lower income households. Households with incomes greater than 300 percent of the Federal poverty guidelines obtained FAFH on 5.5 occasions per week, while households whose incomes were less than or equal to Federal poverty guidelines obtained FAFH on 4.2 occasions per week.
- For households with an elderly individual (over 64 years old), the share of household food spending on FAFH was 8 percent lower than for other households. Also, Americans who were 35–44 years old consumed FAFH more often than other Americans.

- In 2000–15, quick-service restaurants (QSRs), also referred to as fast-food and limited-service restaurants, drove the industry's growth both in sales and number of outlets. The fastest-growing segment of the QSRs was fast casuals—e.g., Chipotle Mexican Grill and Panera Bread—which combines counter service with the perceived ambiance and product quality of full-service restaurants (FSRs).
- Much of the growth in foodservice establishments occurred in urban U.S. counties, consistent with patterns of urban and rural migration. As rural populations declined, FSRs in rural areas were particularly hard hit, leaving QSRs to dominate.
- Spending on FAFH declined during the Great Recession, by $47 billion (18 percent) in real dollars from 2006 to 2010, and rebounded thereafter.
- During the Great Recession, households replaced spending at FSRs with unprepared foods purchased at retail stores (like grocery stores), but households' share of spending for QSRs stayed constant. In 2014, household expenditures on FAFH had yet to rebound to pre-Recession levels.
- Despite the downturn in household spending on FAFH during the Great Recession, the number of chain QSRs grew, and consumers spent a greater share of their FAFH dollars at these restaurants.

Nutritional composition and diet quality. The nutritional composition of FAFH across all income levels and all FAFH types (except school foods) was consistently lower quality and more caloric than that of FAH. Though FAFH is known to have lower diet quality, access to FAFH did not seem to affect FAFH consumption and did not correlate with diminished overall diet quality.

- FAFH's share of total average daily energy intake increased from 17 percent in 1977–78 to 34 percent in 2011–12, and consumption of QSR foods was the largest source of this growth.
- On the whole, FAFH contained more saturated fats and sodium, and less calcium, iron, and fiber than FAH—however, the nutritional composition of FAFH varied across outlet types. For example, in 2009–12, the fat content of school lunches (a type of FAFH) was almost identical to that of FAH (33 percent) while the fat content of QSR foods averaged 39 percent.
- Although frequent QSR customers purchased less vegetables, fish, and nuts, their overall diet quality was no worse than that of QSR nonconsumers.

Policies that affect FAFH. FAFH consumption is influenced by public policy mainly on two fronts. First, current food assistance programs with in-kind food benefits affect food choices and diet quality of participating low-income households. For example, new requirements that improve nutrition of school meals directly affect children's diet quality. Second, new menu labeling regulations may help consumers make more informed food choices at restaurants.

- The average household Healthy Eating Index (HEI-2010) for FAFH was lower than for FAH, regardless of SNAP participation or income.
- School meals provided by the National School Lunch Program and School Breakfast Program contained higher levels of calcium than both FAH and other sources of FAFH and adhered better to USDA's *Dietary Guidelines for Americans* than other sources of FAFH.

How Was the Study Conducted?

This report uses a variety of data sources and techniques to examine FAFH trends. The analysis was done primarily using descriptive statistics (e.g., means, differences, and correlations) and literature review. The main data sources were the National Health and Nutrition Examination Survey (NHANES), USDA ERS's Food Expenditure Series, the National Household Food Acquisition and Purchase Survey (FoodAPS), the Consumer Expenditure Survey, U.S. Census Bureau's Monthly Retail Trade and Foodservices series, NPD ReCount, and Euromonitor Passport. These data sources include self-reported information and measurable individual characteristics collected by household survey, establishment information, and proprietary industry data.

Chapter 3: A Retrospective of Food-Away-From-Home Expenditures From 1987 to 2017

Howard Elitzak and Abigail M. Okrent

This chapter examines macroeconomic trends in food-away-from-home expenditures (FAFH) by outlet type (e.g., full- and limited-service restaurants, hotels and motels, grocery stores, and schools and colleges) using the Food Expenditure Series and relates the observed trends to the economics literature on FAFH. Between 1987 and 2017, FAFH steadily grew as a percentage of total food expenditures, exceeding food at-home (FAH) expenditures for the first time in 2010. Of the three recessions that occurred during the past three decades, only the Great Recession appears to have induced a temporary reduction in FAFH expenditures (December 2007 to June 2009).

In 2017, Americans spent $13,395.5 billion on personal consumption expenditures (PCE).[11] Food expenditures were the third highest aggregate spending category of the U.S. economy, surpassed only by housing and transportation expenditures (Kuhns, 2018). Of this total, housing comprised 33.3 percent, transportation was 17.0 percent, and food accounted for 12.6 percent (Kuhns, 2018). Changes in aggregate food spending are largely attributable to major economic and demographic developments (Stewart et al., 2004). The previous chapter gives a historical account of the evolution of FAFH. As a complement, this chapter provides an overview of broad trends in U.S. food-away-from-home (FAFH) expenditures during the 30-year period from 1987 through 2017. Because there is some variation in the way FAFH is defined, the chapter begins with an overview of the Food Expenditure Series, the basis of this chapter's analysis. The second section explores general trends in FAFH expenditure patterns by outlet type and purchaser and their relationship to personal disposable income. The last section discusses how various economic and demographic factors may drive observed FAFH expenditure patterns, including an assessment of the effect of recessions.

USDA's Food Expenditure Series

The Food Expenditure Series is an annual time series that estimates the value of all food acquired in the United States, including total household food sales, and the cost of food provided to institutionalized populations (e.g., inpatients at hospitals and nursing homes) (Manchester and King, 1979; Manchester, 1987; Manchester, 1990; Okrent et al., 2018). The Food Expenditure Series allocates the value of food acquired into FAH and FAFH categories. FAH expenditures include sales of food for off-premise consumption from grocery stores; other retail stores (e.g., warehouse/wholesale clubs and supercenters, gas stations and convenience stores, and department stores); home delivery and mail order; direct sales by farmers, manufacturers, and wholesalers; and donations and home production. FAFH expenditures comprise sales of food for on-premise consumption from eating and drinking places, hotels and motels, retail stores and direct-sales establishments, recreational places, schools and colleges, and other places (such as military exchanges and institutions such as hospitals and prisons). For example, a deli sandwich purchased at a grocery store would be classified as an FAFH expenditure because such foods are typically consumed on the premises of the store.

The Food Expenditure Series further allocates FAFH by outlet type, including sources that are not primarily engaged in selling meals and snacks, such as hotels and motels, retail stores and direct-

[11]PCE measures consumer spending on goods and services in the U.S. economy and gives an indication of how much household income is allocated for current spending versus saved for future consumption.

sales venues; recreational sites; schools and colleges; military exchanges; railroad dining cars; institutions (e.g., prisons, group homes); and supplies to military forces. Eating places include full-service and limited-service restaurants. Full-service restaurants have wait staff to take orders and deliver food, whereas food is ordered at a counter at limited-service restaurants.

The Food Expenditure Series also breaks down FAH and FAFH expenditures by purchaser type, i.e., families and individuals, Government, and businesses. FAFH purchased by families and individuals includes expenditures for meals and snacks purchased by or provided to them as part of employment or another service (e.g., inpatient meals at hospitals). FAFH purchased by Government includes foods donated to schools and meals provided to incarcerated individuals and the military. FAFH purchased by businesses includes expense account meals. Expenditures by families and individuals are expressed as a percent of disposable personal income (DPI).

The Food Expenditure Series was recently revised to incorporate improved data and methods, and its data begin in 1997. The comprehensive revision resulted in major revisions to the magnitude of the Food Expenditure Series. Because of the extent of the changes, the comprehensive revision establishes a break with the previously published Food Expenditure Series, the data of which began in the 1800s. However, the revised FAH and FAFH estimates and the previously published estimates mostly grew at the same rate from year to year (Okrent et al., 2018). To provide a longer historical perspective in this chapter, we use the rate of change in the previously published Food Expenditure series to pull the revised 1997 estimates back to 1987.

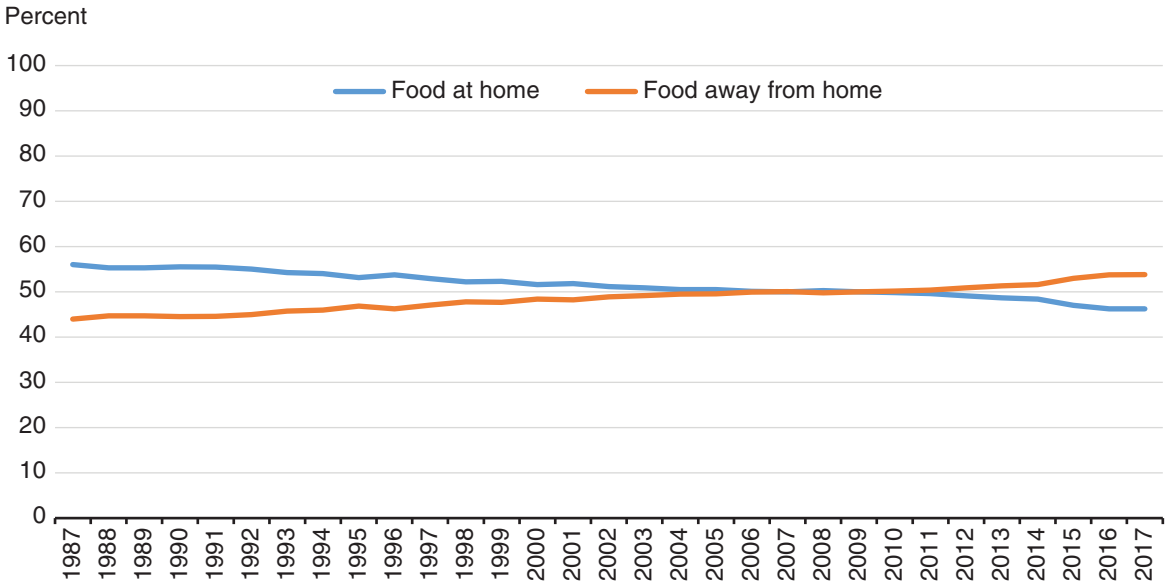
FAFH Over Time

FAFH expenditures rose steadily between 1987 and 2017, with a concurrent decline in the share of FAH spending. In 2007, the FAFH and FAH shares of total food expenditures were approximately equivalent, but in 2008-09, the FAFH share dipped below 50 percent. By 2010, the FAFH market share surpassed the FAH market for the first time (fig. 3.1). FAFH expenditures totaled $616.4 billion in 2010, about 50.2 percent of total U.S. food spending for that year, equal to $332.0 billion in 1988 dollars (fig. 3.2).

Food sales at restaurants, including full- and limited-service restaurants, accounted for 71.9 percent of FAFH expenditures in 2017; in 1987, their combined share stood at 66.6 percent (fig. 3.3). During the past 30 years, full-service restaurants consistently comprised the larger share of FAFH expenditures, rising from 34.0 to 35.8 percent. Meanwhile, the limited-service eating place share increased from 32.6 percent of FAFH expenditures in 1987 to 36.1 percent in 2017. Spending at full- and limited-service restaurants has consistently risen in a parallel manner, except for a brief period during the 1990s (fig. 3.4). Limited-service restaurant sales rose at a faster rate during this interval, briefly surpassing the market share of full-service restaurants in 1995 before full-service restaurants regained their dominance the following year.

Figure 3.1

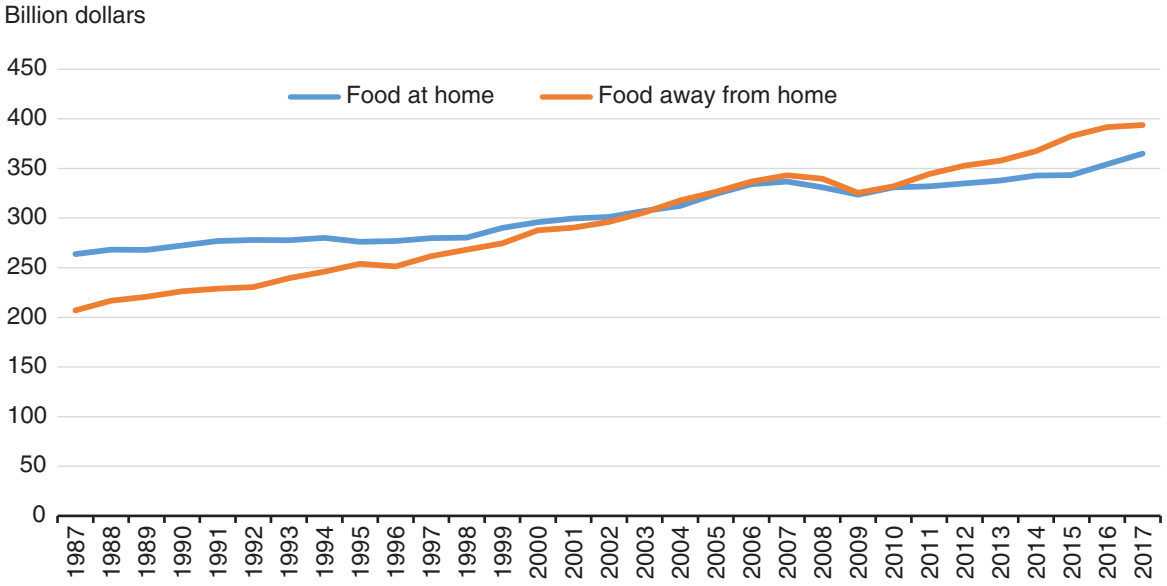
Relative shares of the two major food markets, 1987-2017



Source: USDA, Economic Research Service Food Expenditure Series.

Figure 3.2

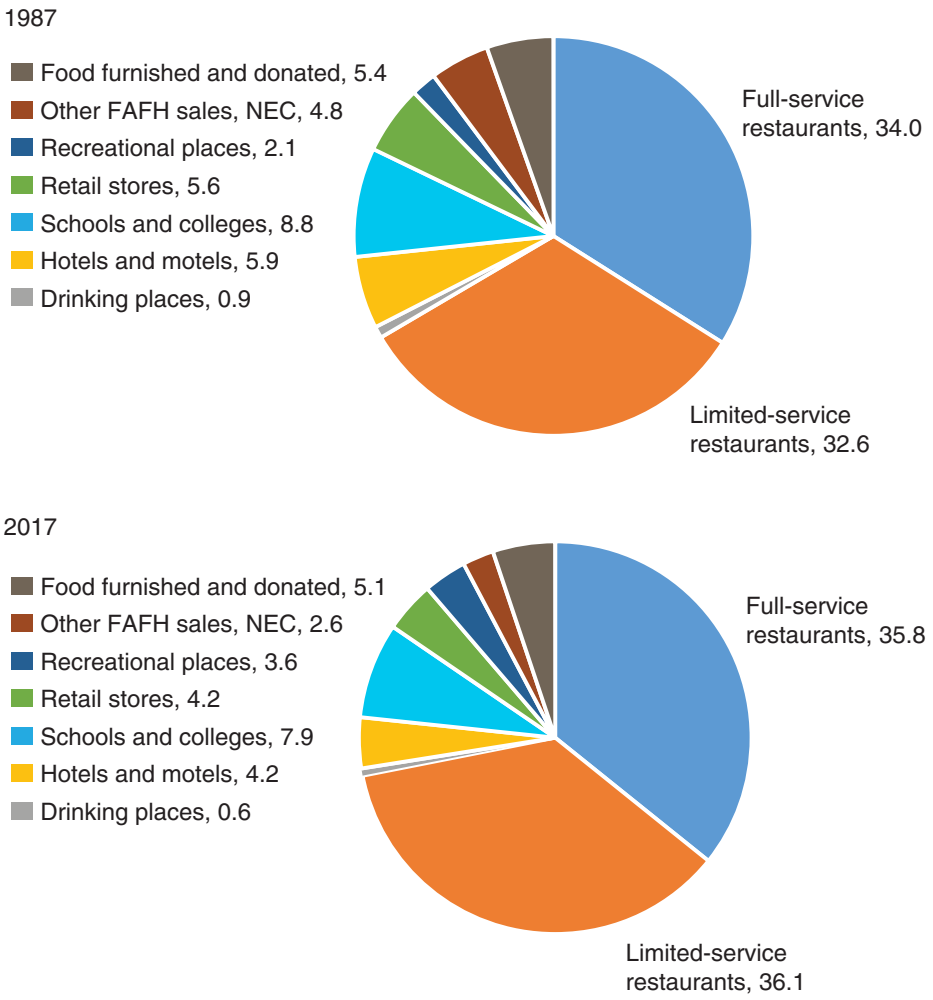
Constant-dollar food expenditures, 1987-2017 (1988 = 100)



Source: USDA, Economic Research Service Food Expenditure Series.

Figure 3.3

Share of FAFH expenditures by outlet type, 1987 and 2017 (percent)

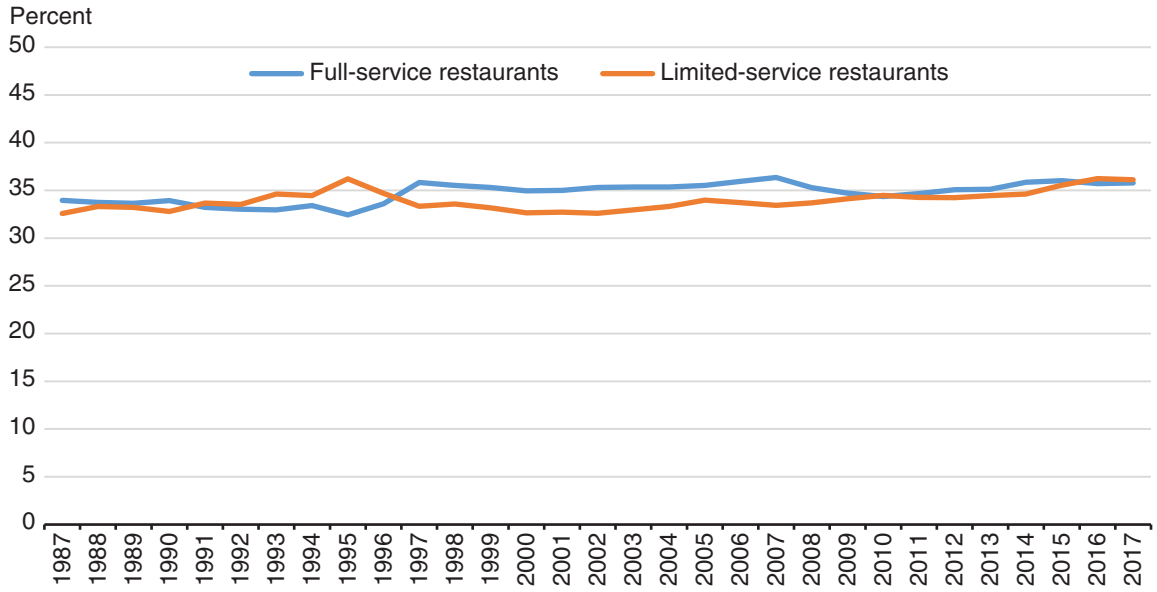


Notes: FAFH = food away from home. NEC = not elsewhere classified. Estimates include sales taxes and tips.
Source: USDA, Economic Research Service Food Expenditure Series.

While restaurants are the largest source of FAFH, Americans can purchase foods at sporting events, recreational places, hotels and motels, and schools and colleges, as well as from retail stores and vending machines. These outlets are similar to their foodservice counterparts in terms of the foods being offered and their nutritional composition. However, foodservice at these outlets is a secondary activity that could reflect either a demand for food itself or a demand for eating as a complement to the primary activity, or both. The only other sector whose share of the total FAFH rose during the 1987-2017 period was recreational places (which include movie theaters, sports, and other entertainment venues), going from 2.1 percent of the nominal FAFH in 1987 to 3.6 percent in 2017. The expenditures for the other types of FAFH—hotels and motels, schools and colleges, retail stores, and vending machines—declined as a share of FAFH between 1987 and 2017. The relative shares of spending between FAFH and FAH are also reflected in the proportion of expenditures as a percent of DPI; the DPI share of FAH expenditures has steadily declined, while FAFH spending has held steady.

Figure 3.4

Percent of FAFH sales at full- and limited-service restaurants, 1987-2017



Notes: FAFH = food away from home. Estimates include sales taxes and tips.
Source: USDA, Economic Research Service Food Expenditure Series.

Three major recessions occurred during the period covered by this chapter. Of these, food expenditure patterns were different during only the Great Recession, when Americans of all income levels reduced food spending by eating out less (Kumcu and Kaufman, 2011; see chapter 4). According to the Food Expenditure series, this reduction was reflected in decreased FAFH spending from $601.6 billion in 2008 to $596.7 billion in 2009, a decrease of 0.8 percent. Reduced FAFH spending was especially pronounced at full-service restaurants and was largely responsible for decreased aggregate FAFH spending during the Great Recession. Spending at limited-service restaurants actually increased at a slower rate during the recession. Between 2004 and 2006, food spending at these restaurants grew an average of about 7.3 percent; between 2007 and 2009, it grew an average of 3.1 percent; and between 2010 and 2017, it grew an average of 5.6 percent

Expenditures on FAFH did not decrease during the other two economic downturns that occurred in this 30-year period, and there was little change in the relative shares of the aggregate FAH and FAFH markets. Similarly, there was little change among the relative market shares of the various outlets comprising the FAFH market. There were pronounced slowdowns in the rate of increase in FAFH expenditures within a year of the onset of the recessions in the 1990s and early 2000s although expenditures on FAH also rose at a slower pace during this period. For example, nominal FAFH spending continued to increase in the wake of the 1990-91 recession; however, this rate of increase slowed from 7.2 percent in 1990 to 4.6 percent in 1991 and 2.8 percent by 1992. In 1993, FAFH spending picked up again, increasing 5.7 percent.

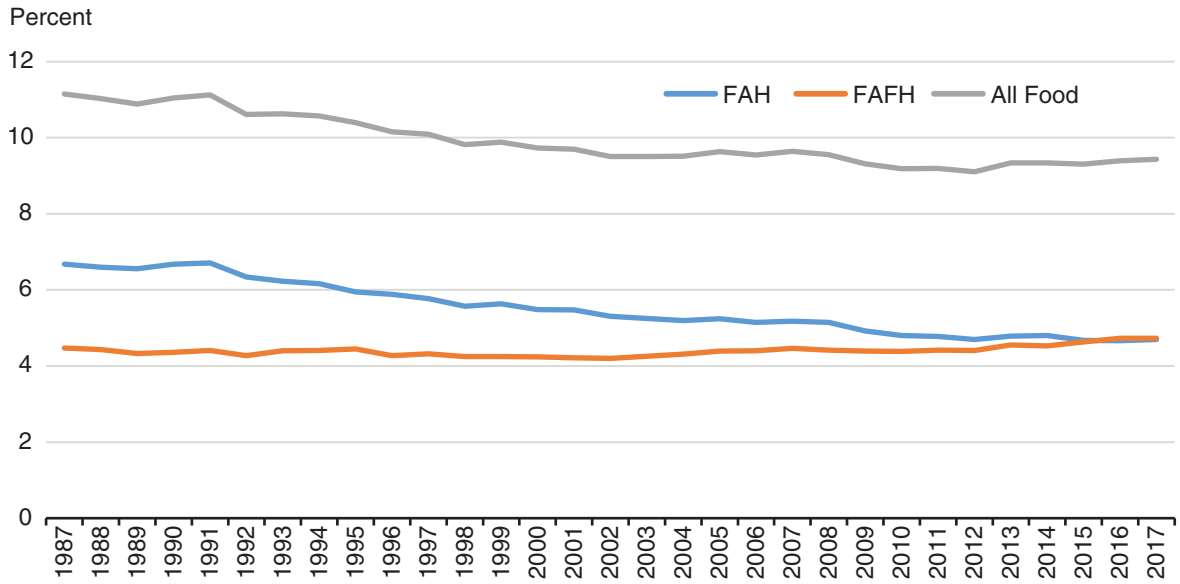
The 2001 recession lasted 8 months (as did the 1990-91 recession), but unemployment rose less during this period than during the Great Recession. The milder impacts of the 2001 recession resulted in smaller changes to food expenditures compared to the other recessions. FAFH spending rose, but at a smaller pace, increasing just 3.8 percent in 2001 and 4.5 percent the following year, while FAH spending increased 4.6 and 1.8 percent, respectively. However, FAFH expenditures rose

4.5 percent in 2003, surging 7 percent by 2004. These increases reflected renewed consumer confidence and a faster rate of increase in disposable income.

According to the Food Expenditure series, between 1987 and 2017, the share of disposable personal income spent on total food by American households fell from 11.2 to 9.4 percent, as the share of income spent on FAH fell (fig. 3.5). This result is consistent with Engel's law, an empirical observation that as income increases the share of income spent on food declines even if actual expenditure on food rises. This decline is largely driven by the share of income spent on food purchased in grocery stores and other retailers declining from 6.7 percent to 4.7 percent during this period. At the same time, the Food Expenditure data show that the percent of income spent on food purchased at restaurants and other away-from-home eating places increased slightly, from 4.5 to 4.7 percent. By 2016 and 2017, the share of disposable personal income for FAH and FAFH was equivalent, at 4.7 percent.

Figure 3.5

Household food expenditures as a percent of personal disposable income, 1987-2017



Notes: FAFH = food away from home. Estimates include sales taxes and tips.
Source: USDA, Economic Research Service Food Expenditure Series.

Factors Affecting Spending on FAFH

The trends above can be explained by looking at economic determinants of FAFH. Consumers choose food based on affordability (how much income they have and how much the food costs), time constraints, and their tastes and preferences. Income is an important determinant of food choices, FAFH in particular. While the proportion of the budget spent of food generally falls as income increases (as described above), the composition of the food basket also changes.

It has been observed that the consumption of starchy, staple foods declines with income (Bennet's law). Staple foods are examples of necessities where consumption of the food increases less than proportionally with increases in income. Conversely, foods whose consumption increases more than proportionally with income are called luxuries. In other words, FAFH is income-responsive to the extent that a 1-percentage point increase in income generates a more than 1-percentage-point

increase in demand for FAFH. While the consumption of necessities increases less than proportionally with income, the consumption of luxuries must increase. Kamakura and Du (2012) found that Engel curves for FAH were downward sloping while Engel curves for FAFH were upward sloping. These results imply that income increases the expenditure allocated to FAFH at more than a proportional rate. In addition, demand for FAFH tends to be more responsive to income changes than demand for FAH (Seale et al., 2003; Okrent and Alston, 2012; Okrent and Kumcu, 2016). Between 1987 and 2017, DPI generally increased (except during economic downturns). This trend has likely contributed to observed declines in the share of DPI allocated to food, along with increases in the share of DPI allocated to FAFH.

Relative price movements are also an important determinant of food choices. If prices of FAH grow at a faster rate than FAFH, then consumers have an incentive to subsitute FAFH for FAH. Between 1987 and 2017, price increases of FAFH outpaced those of FAH, with average annual FAH and FAFH price growth of 2.6 and 2.8 percent, respectively. However, price growth varied across outlet types. Okrent and Kumcu (2016) found that prices at full-service restaurants generally held pace with limited-service restaurants until 2005 but that limited-service restaurants began to outpace full-service restaurants thereafter. The price effect generally causes the quantity of FAFH demanded to decline, depending on the degree of price elasticity and the extent to which FAH serves as a substitute for FAFH. Previous studies have modeled demand for FAFH as a composite good and have generally found demand for FAFH to be more responsive to price changes than FAH (see Okrent and Alston (2012) for a review of these studies). Okrent and Alston found demand for limited-service restaurants to be almost perfectly inelastic to changes in prices (-0.13) and demand for meals from full-service restaurants to be quite price elastic (-1.96). Okrent and Kumcu also found demand for limited-service meals and snacks to be relatively more inelastic than both full-service and FAH food. Richards and Mancino (2013) found the price elasticity of demand for meals at limited-service restaurants and various types of full-service restaurants to be between -0.5 and -0.9. Given the observed growth in FAFH spending over the period, it is likely that the positive income effect has dominated any negative price effect.

Interestingly, Gicheva et al. (2007) show that American consumers reallocate their expenditures across and within food-consumption categories in order to offset necessary increases in gasoline expenditures when gasoline prices rise. In particular, gasoline expenditures rise one-for-one with gasoline prices, and consumers substitute away from FAFH and towards FAH in order to partially offset their increased expenditures on fuel. Within FAH, consumers substitute away from regular shelf-price products and toward promotional items in order to save money on overall grocery expenditures. On average, consumers are able to decrease the net price paid per grocery item by 5 to 11 percent in response to a 100-percent increase in gasoline prices.

Households not only consider affordability when making food choices, but also the time it would take to prepare the foods. If the primary meal planner in the household gets a job, then that person's time becomes more valuable. Time-intensive meal preparation thus becomes less attractive and motivates increased consumption of away-from-home prepared meals. Over the past several decades, increases in women's education and labor-force participation may have led to less time spent cooking and higher FAFH expenditures. Many studies have found that the value of time for a household manager (sometimes assumed to be the woman) positively affects demand for total FAFH (Prochaska and Schrimper, 1973; Sexauer, 1979; Soberon-Ferrer and Dardis, 1991; Yen, 1993; Nayga and Capps, 1994; Byrne, Capps, and Saha, 1996; Dong et al., 2000). However, a few studies, namely Huffman (2011), Redman (1980), and Kinsey (1983), found the household time constraint

to be a less important determinant of demand for FAFH. Kinsey (1983) argued that while this may appear to contradict theory, in fact, household managers need not increase FAFH expenditures in order to substitute relatively inexpensive goods and services for time if the cost of purchasing certain types of FAFH (i.e., limited-service meals) is cheaper than conventional full-service restaurants.

A handful of studies investigate whether the value of time has a differential effect on FAFH by establishment and meal type. McCracken and Brandt (1987) and Stewart et al. (2004) found that an increased value of the household meal planner's time resulted in higher expenditures on meals at limited-service restaurants more than on meals from full-service restaurants. Similarly, Byrne et al. (1998) and Stewart and Yen (2004) found the effect of household manager hours to have a positive impact on demand for foods from limited-service restaurants but to be negative for full-service foods. Contrary to previous findings, Jekanowski et al. (2001) did not find any significant effect of this variable on per capita fast-food sales. Jensen and Yen (1996) examined the demand for FAFH by meal type—breakfast, lunch, and dinner—and found that the effects of a wife's employment are positive on both the probability and level of expenditures on lunch and dinner in the FAFH market, but did not seem to affect breakfast consumed as FAFH.

Household size may also impact FAFH expenditures. The average size of the American household has shrunk from 2.7 members in 1984 to 2.5 members in 2014 (Current Population Survey, U.S. Census). Additionally, chapter 4 shows notable differences in food spending patterns across households of different sizes. As a household adds more members, FAH may become more economical for several reasons. First, food preparation time per person increases as household size decreases. For example, it might take 20 minutes to prepare a meal for one person at home, but just 30 minutes to prepare a meal for four people. Second, as household size increases, food preparation and clean up can be delegated across more people. Third, the household with more members can also benefit by purchasing larger package sizes with lower per unit costs. Byrne et al. (1996) found household size had a negative effect on demand for total FAFH, arguing that there are economies of scale in household size in food production at home. However, Byrne et al. (1998) found that family size was only negatively related to expenditures at full-service restaurants and positively related to expenditures at fast-food restaurants. On the flip side, some argue that single-person households may demand less food away from home. For example, they may demand less food from full-service restaurants because they do not want to eat alone away from home. Prochaska and Schrimper (1973) and Soberon-Ferrer and Dardis (1991) found that even though the presence of children in the household negatively affected demand for total FAFH, the size of the household increased demand for total FAFH. They argue that the additional number of adults in the household leads to additional FAFH purchases because of employment and social activities.

Studies have also investigated changes to household structure where American households used to be primarily headed by married partners and have transitioned more to single and multi-generational households (Hamrick and Okrent, 2014). Byrne et al. (1998) found that unmarried households spent less on FAFH than married households regardless of restaurant type, arguing that a fewer number of people were involved in the FAFH occasion. Contrary to this result, Stewart and Yen (2004) and Stewart et al. (2004) found that single-person households spent around $0.50–$3.00 more per week at fast-food and full-service restaurants compared to married households. On the other hand, single-parent households spent $0.83 less than married households with children at both types of FAFH establishments. The gender of the household manager also seems to play an important role on demand for FAFH. However, the dominance of one gender over the other is uncertain, based on the literature. For example, Byrne et al. (1996) found that female household managers spent less

than male household managers on FAFH, which they attributed to males having less culinary skill. This result is contrary to that of Dong et al. (2000), who found that female household heads tended to purchase more FAFH meals than male household heads, while single households had no effect on the number of FAFH meals. By establishment type, Byrne et al. (1998) found that female household managers who worked outside the home spent less at upscale and midscale full-service restaurants, but more at fast-food restaurants, than male household managers.[12]

Differences in dining-out preferences across generations may also be important determinants of FAFH consumption. In the past, people often spent less away from home as they became older (see the chapter 4 for more details about the impact of the elderly on FAFH and FAH consumption patterns). It remains to be seen whether this pattern will hold true for Baby Boomers (people born between 1946 and 1964). Further, the greater tendency of Millennials—defined as people born after 1980 (Pew Research Center, 2015) – to eat away from home could explain recent increases in the FAFH share of total food expenditures. Indeed, Consumer Expenditure Survey data from 2015 show that Millennials had the highest FAFH expenditure share, at 47.0. This share drops with older generations. For example, Baby Boomers had a share of 40. 6 percent. The Greatest Generation (born before 1928) had the smallest share at 30.3 percent. By contrast, the share of FAH expenditures was greater for each generation. Millennials had the smallest FAH share at 53.0 percent, while the Greatest Generation had the largest at 69.7 percent. Over time, this may change as Millennials get older, when their preferences may become more similar to current Greatest Generation individuals.

Business cycles can enhance or diminish the impact of the various factors, just discussed, that influence changes in the level of consumer food expenditures. First, higher unemployment levels during the Great Recession permitted more time for food preparation such that households substituted away from FAFH (Nevo and Wong, 2015; Todd and Morrison, 2014; see Chapters 4 and 7). Second, relatively higher aggregate FAFH prices incentivized people to eat at home more, thereby influencing expenditure levels in these markets during the recession (Todd and Morrison, 2014). Third, demand for FAFH tends to be more responsive to income changes than demand for FAH (Okrent and Alston, 2012). Hence, compared to FAH, FAFH was more responsive to the 5.3-percent decline in disposable income from 2008 to 2009, and it is likely that, if FAFH is a luxury, the income effect would be amplified. Finally, consumer confidence was very low during the Great Recession and reached its lowest recorded level in 2008 (De Nardi et al., 2012). Consumer expectations provide information about potential future changes in consumer spending and serve as a leading indicator for the aggregate economy. These expectations can affect consumer preferences, and hence expenditure allocations between the FAH and FAFH sectors.

Advertising likely plays a role in household food sourcing. Advertising expenditures for meals and beverages offered by quick-service and full-service restaurants are substantial, with some of the top advertisers in the country being McDonald's, Yum Brands and Darden Restaurants. There is also some promotion of commodities commonly consumed at home, such as milk, some fruits, and beef and pork, as well as ready-to-cook and ready-to eat products like Campbell's and Hershey's. However, the promotion of foods for at-home consumption pales in comparison to that for FAFH (Okrent and Kumcu, 2016). Some studies have found demand for quick-service foods to be quite responsive to advertising. Andreyeva, Kelly, and Harris (2011) found a significant effect of fast-food advertising on body weight for overweight and obese (body mass index or BMI ≥ 85th percentile)

[12]Byrne et al, (1998) define upscale restaurants as offering full alcohol service and accepting credit card whereas midscale restaurants do not.

children. Grossman, Tekin, and Wada (2012) found that banning television advertisements for fast food would reduce youth BMI by 2 percent and youth body fat by 3 percent.

The extent to which increased U.S. racial and ethnic diversity affects FAFH expenditures remains to be seen. Many studies find significant differences in eating patterns based on race, including studies focusing on FAFH (see chapters 4 and 5, as well as Hamrick and Okrent, 2014, Byrne et al., 1998, and Stewart et al., 2004, to name a few). Typically, these findings are attributed to differences in tastes and preferences across ethnic groups. The diversity of ethnic restaurants, which grew during the past 15 to 20 years, may reflect both increased population diversity and increased demand for ethnic foods.

Conclusion

FAFH expenditures steadily grew as a percentage of total food expenditures between 1987 and 2017, and they exceeded FAH expenditures for the first time in 2010. However, these expenditures have remained fairly steady as a percent of disposable personal income (DPI). In contrast, this ratio has declined for the FAH market. Total food expenditures have also declined as a percent of DPI.

Three recessions have occurred during the last three decades, and of these, only the Great Recession appears to have induced lower FAFH expenditures. However, it should be noted that two of these recessions lasted two-thirds of a year, while the Great Recession had a duration of 18 months. Limited-service restaurants have gained the most share of the various FAFH outlets during this period, but full-service restaurants still account for the highest share of FAFH expenditures.

Many factors can explain observed changes in FAFH spending. Income is likely one of the most important, and the Food Expenditure series shows changes consistent with two empirical laws—Engel's Law and Bennett's Law. While the proportion of the budget spent on food generally falls as income increases (Engel's Law), foods such as FAFH that are considered luxuries will increase more than proportionally with income (Bennett's Law). Prices changes are important as well, but the cost of gasoline may be a more important factor in influencing FAFH spending than the cost of FAH. Household time constraints have also become an important factor affecting FAFH expenditures. Over the past several decades, increases in women's education and labor-force participation may have translated into less time cooking and higher FAFH expenditures. Changes to household composition and structure have also likely played a role in the upward trend in FAFH spending. Increased advertising for FAFH also may have played a major role. It is difficult to pinpoint any one factor as being the most important because there are currently insufficient data to allow for a simultaneous analysis of the various factors impacting FAFH expenditures.

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