EXAMINING FOOD PURCHASE BEHAVIOR AND FOOD VALUES DURING THE COVID-19 PANDEMIC

Brenna Ellison, University of Illinois at Urbana-Champaign
Brandon McFadden, University of Delaware
Bradley J. Rickard, Cornell University
Norbert Wilson, Duke University
COVID-19 CONTINUES TO DISRUPT THE FOOD SYSTEM

• Stockouts (early on)
• Increases in food prices
• Continued restrictions on food away from home (FAFH) purchases in many states
THESE CHANGES COULD IMPACT HOUSEHOLDS IN A NUMBER OF WAYS…

• Shifts in food at home (FAH) and food away from home (FAFH) purchases
• Shifts in food acquisition behaviors (e.g., shopping online)
• Shifts in the importance of certain attributes to food purchases, or food values

• The purpose of our research was to examine changes in household food purchasing behavior and food values during the early weeks of the Covid-19 pandemic
DATA COLLECTION STRATEGY

• We employ a rapid panel design

• Households surveyed 4 times (approx. every 2 wks) from mid-March to late April, 2020

Round 1  
March 13  
Stocking Up

Round 2  
March 27  
Shelter in Place

Round 3  
April 10  
CARES Payment Distribution

Round 4  
April 24  
Reopening Plans Released
KEY QUESTIONS OF INTEREST

• Food acquisition questions pulled from Flexible Consumer Behavior Survey (FCBS) Module of 2017-2018 NHANES.

• During the past (X) days, how much money did your family or did you spend:
  • At supermarkets or grocery stores? (FAH)
  • On food at stores other than grocery stores (gas stations, corner stores, etc., but not restaurants)? (FAH)
  • Eating out? (FAFH)
  • On food carried out or delivered? (FAFH)

• Note: Respondents could answer on a weekly (7 days) or monthly (30 days) basis; all results converted to weekly spending.
KEY QUESTIONS OF INTEREST

• We also asked about purchases of specific food products.

• Because of Covid-19, how have you changed food purchases this week compared to a typical week?
  • Washed and packaged salad greens
  • Frozen vegetables
  • Shelf-stable, not refrigerated milk
  • Canned fish or meats
  • Eggs
  • Dry staples (rice, pasta, etc.)

Response Options:
  Bought a lot less
  Bought a little less
  Bought the same as before
  Bought a little more
  Bought a lot more
  Never Purchase
KEY QUESTIONS OF INTEREST

• Food values questions adapted from 2009-2010 FCBS
• When you buy food from a grocery store or supermarket, how important is…
  • How easy the food is to prepare? (Convenience)
  • Nutrition?
  • Price?
  • How well the food keeps after it is bought? (Storability)
  • Taste?

• Note: Each value rated on a 5-point scale where 1=Not at all important and 5=Extremely important.
Respondent Characteristics

- $N = 1,370$ respondents
- 58.7% male
- 58.3% have a Bachelor’s degree or higher
- Race
  - 66.5% White/Caucasian
  - 9.9% Black/African American
  - 11.5% Hispanic or Latino/a
- Older sample relative to U.S. population
RESULTS – FAH AND FAFH SPENDING (USD/WEEK)
RESULTS – SPECIFIC FOOD PURCHASES

![Graph showing changes in purchase behavior for different food categories over rounds of data collection.](image-url)
RESULTS – PREVALENCE OF ONLINE GROCERY SHOPPING
RESULTS – FOOD VALUES

How does this compare to pre-Covid times?

Burton-Freeman et al. (2017) report % of people ranking each value as very or somewhat important from FCBS data:

- Taste: 81%
- Nutrition: 79%
- Price: 73.4%
- Storage: 71.5%
- Ease: 63.6%
TAKEAWAYS

1. Food expenditures changed. Decreases in FAFH driven by less eating out, partially offset by increased carry out.
   • Coincides with introduction of shelter in place orders for many states
   • Reopening over summer could have allowed for some rebound in FAFH but winter surge has likely erased any such rebound effects

2. Significant increases in online shopping behavior; likely to continue through winter.

3. Food values appeared fairly stable over the 4 survey rounds; however, ordering does look different from pre-Covid times. Storability elevated above price, nutrition.
MORE TO THINK ABOUT…

• Heterogeneity in food acquisition and purchasing behavior across households
  • Geographic region
  • Household income/employment status

• How has dietary quality changed?

• The number of households experiencing food insecurity has increased significantly. What are long-term consequences for food access and nutrition?
THANK YOU!

Published paper available at: https://doi.org/10.1002/aepp.13118