



Estimates of Food Insecurity During the COVID-19 Crisis: Results from the COVID Impact Survey, Week 2 (May 4–10, 2020)

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“Estimates of Food Insecurity During the COVID-19 Crisis: Results from the COVID Impact Survey, Week 2 (May 4–10, 2020)”

by **Diane Schanzenbach** and **Abigail Pitts**

Introduction

The second round of the COVID Impact Survey was recently released, allowing us to continue to monitor changes in economic and health outcomes during this fast-moving crisis. In this report,ⁱ we update estimates of food insecurity during the COVID-19 crisis, analyzing data from the [COVID Impact Survey](#) to describe levels of food insecurity by race, income, and presence of children in May 2020.

- Food insecurity remains elevated and statistically unchanged, with food insecurity rates twice as high overall—and nearly three times as high among respondents with children—as they were predicted to be in March.
- Between the April and May surveys, food insecurity declined among white respondents and increased among black respondents. In May, a majority of black respondents with children reported they were food insecure.
- Seven percent of respondents reported receiving benefits from food pantries over the prior 7 days, a rate that was statistically unchanged across months.
- A substantial share of respondents report applying in the past 7 days for benefits from Unemployment Insurance (UI) or the Supplemental Nutrition Assistance Program (SNAP), with declines in reported applications across waves.
- Rates of food insecurity and food pantry use continue to vary widely across states and metropolitan areas represented in the survey.

Data and Findings

Data

The [COVID Impact Survey](#) collects data on economic and health outcomes of nationally and regionally representative samples of American adults. Funded by the Data Foundation, the survey is conducted by NORC at the University of Chicago and is made publicly available to researchers.ⁱⁱ Two weeks of data have been released, covering April 20–26 and May 4–10.

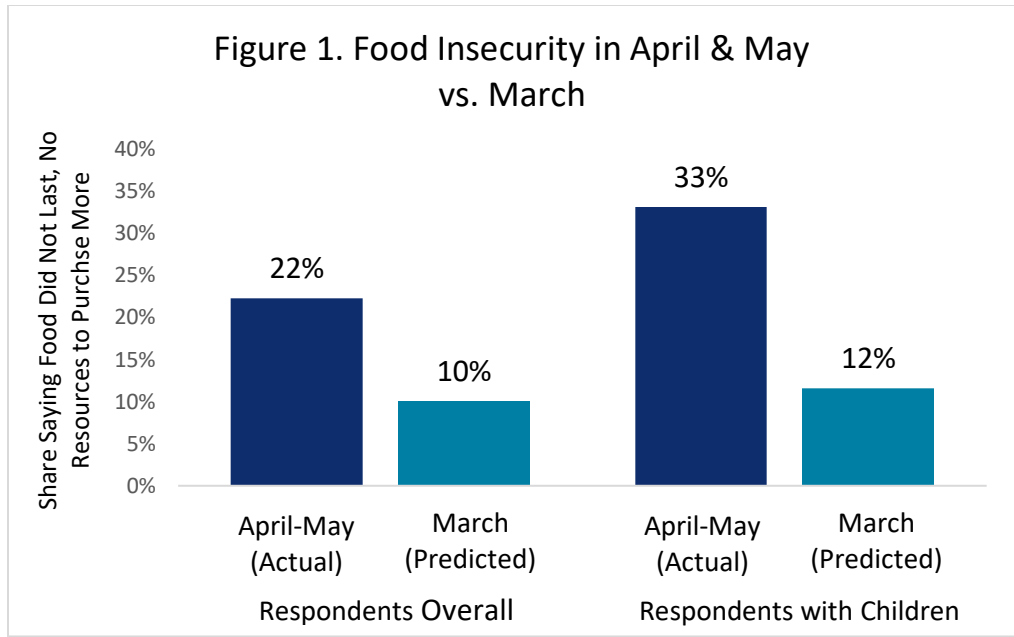
In our primary analysis below, we use the national sample and weights, which include data from 2,190 and 2,238 adults, respectively. The subnational survey, which can be used to provide representative estimates for selected states and metropolitan areas, includes 7,267 and 7,026 adults, respectively. The overwhelming majority (92%) of surveys were conducted online, with the remainder collected over the phone.

Updated Food Insecurity Rates

As described in more detail in our [prior report](#), food insecurity as measured on the COVID Impact Survey is not directly comparable with the measures annually reported by USDA, which are based on a longer survey that includes up to 18 items. The COVID Impact Survey has taken the validated approach of asking only a subset of questions from the longer scale. Our analysis primarily focuses on the share of respondents indicating that it was often or sometimes true over the past 30 days that “We worried our food would run out before we got money to buy more.” We refer to this concept as “food insecurity.”

As described further below, **food insecurity was statistically unchanged between the April and May surveys and remains greatly elevated above the rate we predicted for March, especially for respondents with children.** As shown in Figure 1, overall food insecurity more than doubled to 22% in the pooled April and May COVID Impact Surveys compared to the predicted level for March. Food insecurity remains particularly elevated among respondents with children, with 1 in 3 respondents with children reporting food insecurity. **Among those with children, the April-May measure of food insecurity has nearly tripled with a rate that is 2.85 times what was predicted for March.**

Comparing topline results in May and April, we find that food insecurity has not statistically changed between the two surveys conducted 2 weeks apart. We note that the question measuring food insecurity asks about experiences over the previous 30 days. As a result, even if many families have experienced some economic relief in the past week or two, food insecurity rates would remain elevated as long as they reported lack of resources for food at some point within the last month. We will continue to monitor updates to food insecurity as they are released.



Notes: April and May reports of food insecurity calculated from the COVID Impact Survey and weighted by national panel weights. March rates were predicted based on unemployment rates and monthly data from the National Health Interview Survey, see our [prior report](#) for details.

Table 1 below reports food insecurity across the April and May waves of the COVID Impact Survey, overall and separately by presence of children and by race and ethnicity of the respondent. Column (1) displays the average rate of food insecurity across both waves of data collection. Columns (2) and (3) present average rates in the May and April surveys, respectively. Column (4) shows the differences between the May and April surveys, with stars indicating statistically significant differences. For respondents overall (shown in Panel A), food insecurity averages 22% and is unchanged between waves. There were heterogeneous differences across race and ethnicity groups. **Among white respondents, food insecurity declined by a statistically significant 4 percentage points between the April and May waves, while it increased by over 8 points for black respondents and remained unchanged among Hispanics.**

Results for respondents with children are shown in Panel B. There was no change in food insecurity between waves. White respondents with children experienced quite a substantial statistical decline in food insecurity, dropping by 15 percentage points. Black respondents with children experienced a similar-sized increase that was marginally statistically significant. **In the May wave of results, over half of black respondents with children reported they were food insecure. This increase occurred despite a statistically significant increase in the share reporting that they worked for pay over the past week.** Over 4 in 10 Hispanic respondents with children reported food insecurity—a rate that was unchanged across waves.

As shown in Panel C, rates are statistically unchanged among respondents without children. Similar to the results in Panels A and B, there was an increase in the rates reported among black respondents, but the difference was not statistically significant for respondents without children. Across all panels, food insecurity

rates among blacks and Hispanics are statistically higher than those among whites, and there is no statistical difference in food insecurity between blacks and Hispanics.

Table 1. Food Insecurity in the United States April 20–26 and May 4–10, Overall and by Race/Ethnicity

Panel A: All Respondents				
	Average April & May (1)	May 4–10 (2)	April 20–26 (3)	Difference (4)
Overall	22.3%	21.7%	22.8%	-1.1%
White	16.3%	14.4%	18.2%	-3.9%***
Black	33.2%	37.5%	29.0%	8.4%**
Hispanic	34.1%	33.9%	34.2%	-0.4%
Panel B: Respondents with Children				
	Average April & May (1)	May 4–10 (2)	April 20–26 (3)	Difference (4)
Overall	33.2%	31.6%	34.5%	-2.9%
White	26.2%	18.3%	32.9%	-14.6%***
Black	44.1%	51.4%	37.7%	13.7%*
Hispanic	42.8%	44.3%	41.6%	2.6%
Panel C: Respondents w/out Children				
	Average April & May (1)	May 4–10 (2)	April 20–26 (3)	Difference (4)
Overall	18.6%	18.8%	18.3%	0.5%
White	13.6%	13.4%	13.9%	-0.5%
Black	28.7%	32.2%	25.2%	7.0%
Hispanic	29.5%	29.4%	29.6%	-0.1%

Notes: April and May reports of food insecurity calculated from the COVID Impact Survey. Differences denoted by stars ***, **, * represent those statistically significant at the $p < 0.001$, $p < 0.05$ and $p < 0.10$ levels, respectively.

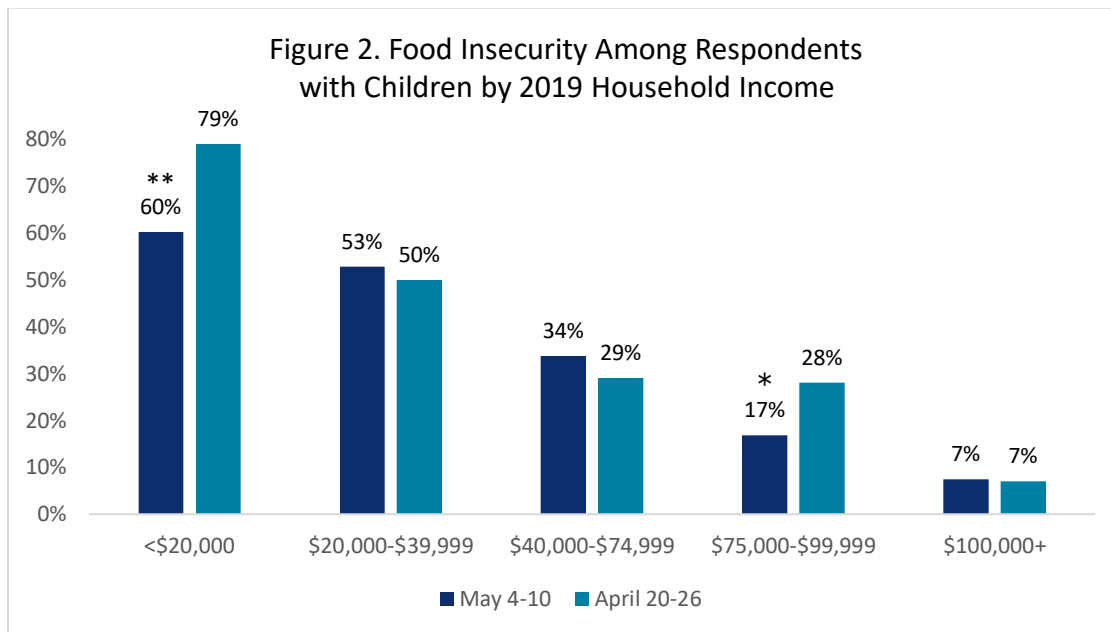
Table 2 presents food insecurity rates across urban, suburban, and rural areas, pooled across the two survey waves. **Overall, there are no statistical differences across location type. Food insecurity averages 23% in urban areas and rural areas, and 21% in the suburbs.** Food insecurity is higher among respondents with children— with over 1 in 3 reporting food insecurity in rural and urban locations, and 28% in suburban ones. Between the April and May surveys, food insecurity statistically declined among suburban residents overall and among suburban residents with children.

Table 2. Food Insecurity by Population Density

	Rural (1)	Suburban (2)	Urban (3)
All Respondents	23%	21%	23%
Respondents w/Children	33%	28%	34%
Respondents w/out Children	20%	18%	18%

Note: Data pooled across April and May survey waves and weighted using national weights.

We further explore patterns of food insecurity among respondents with children across the survey waves. Figure 2 shows food insecurity rates by level of 2019 annual income. **Between the April and May surveys, the lowest-income respondents report a sharp, statistically significant decline in food insecurity. These respondents also reported increased rates of working for pay and receiving unemployment insurance benefits over the prior week.** There was also a marginally statistically significant decline in food insecurity among respondents with 2019 earnings between \$75,000 and \$99,999.



*Notes: April and May reports of food insecurity calculated from the COVID Impact Survey. Differences denoted by stars **, * represent those statistically significant at the $p < 0.05$ and $p < 0.10$ levels, respectively.*

Respondents are asked whether it was “often,” “sometimes,” or “never” true that the food they bought did not last. To this point, we have coded “often” and “sometimes” together in a binary measure of food insecurity. In Table 3 below, we separate them to investigate changes in the severity of food insecurity. Overall, the share of respondents with children indicating that their food “often” did not last declined by a marginally statistically significant 3.1 percentage points overall. Similar to the overall rate of food insecurity, the unchanged overall rate of those who answered that their food “often” didn’t last masks offsetting effects of a decline among white respondents and an increase among black ones (both of which are statistically significant). The decline among

Hispanics is not statistically different from zero. White respondents also had a statistically significant decrease in the share answering that their food “sometimes” ran out, with no change in the overall rate or the rates among black or Hispanic respondents.

Table 3. Intensity of Food Insecurity Among Respondents with Children, May vs. April

	Food Just Didn’t Last “Often”		Food Just Didn’t Last “Sometimes”	
	May 4–10 (1)	April 20–26 (2)	May 4–10 (3)	April 20–26 (4)
Overall	6.2%	9.3%	25.4%	25.1%
White	3.0%	7.4%	15.3%	25.5%
Black	16.7%	7.1%	34.7%	30.6%
Hispanic	5.8%	10.8%	38.5%	30.8%

Early Policy and Charity Responses to the COVID Crisis

The charity food system has made heroic efforts to address increased need during the COVID-19 crisis. There have been widespread reports of overwhelming increases in people seeking assistance at food pantries. [Feeding America estimates](#) their member organizations have faced a 70% increase in need on average, and a doubling in some areas. **Averaged across the two survey waves, an astonishing 7% of respondents overall (and 8.5% among those with children) reported receiving assistance from a food pantry in the prior week as shown in Table 4 below.** Among those reporting food insecurity, 1 in 5 respondents received assistance from a food pantry in the prior week. The share receiving assistance was statistically unchanged between the April and May surveys.

Table 4. Received Assistance from Food Pantries, by Presence of Children and Food Insecurity

	Received (1)	Received if Food Insecure (2)
All Respondents	6.8%	18.9%
Respondents with Children	8.5%	16.2%
Respondents without Children	6.3%	20.5%

Notes: Data pooled across the April and May survey waves and weighted using the national panel weights.

In the April survey, a substantial share of respondents reported that they interacted with food pantries in that they “applied or tried to apply” for benefits but did not report receiving benefits. One interesting difference between the April and May surveys is that there was a reduction in the share of respondents who “applied or

tried to apply” (especially among respondents with children), but no change in the share receiving benefits from food pantries.

This level of charity food provision is not sustainable but was a necessary response to alleviate short-term suffering. This occurred as states struggled to process applications to safety net programs during a period in which they were simultaneously overwhelmed by new applications and in need of implementing social distancing practices to protect their caseworkers. The COVID Impact Survey collects information on those who reported that they applied, or tried to apply, for the Supplemental Nutrition Assistance Program (SNAP) or Unemployment Insurance (UI) benefits in the prior seven days. As we discussed in our earlier report, the survey is not well designed to measure the share of the population currently on these programs. Additional data will be coming out in the coming weeks from other sources that will allow researchers to better understand these aspects of the safety net response.

In Table 5 below, we present the share of respondents who applied or tried to apply for safety net programs, by survey week. As has been widely reported, a very large share of the population applied for UI benefits. In the April survey, 12% of respondents overall and nearly 1 in 5 respondents with children applied for UI. In May, these shares were statistically significantly down to 9% and 11%, respectively. The share reporting having applied to SNAP over the prior week also declined across all groups, statistically significantly for the overall population. Although we do not yet have data to fully assess to what extent the decline in new applications to these programs indicates an increase in benefit receipt, there is some evidence that UI and SNAP payments have increased.ⁱⁱⁱ **Increased benefit receipt should help relieve the high levels of food insecurity.** The COVID Impact Survey also collected information about applications to the Temporary Assistance for Needy Families (TANF), which is a block-granted program that does not necessarily expand during economic downturns. Overall, 2% of respondents reported applying for TANF.

Table 5. Applications to Safety Net Programs

	UI			SNAP		
	May 4–10	April 20–26	Difference	May 4–10	April 20–26	Difference
	(1)	(2)	(3)	(4)	(5)	(6)
All Respondents	8.5%	11.9%	-3.4%***	4.4%	5.9%	-1.5%**
Respondents with Children	11.1%	18.1%	-7.1%***	6.5%	8.7%	-2.2%
Respondents without Children	7.8%	9.5%	-1.7%	3.8%	4.9%	-1.1%

*Note: Share of respondents reporting that they applied or tried to apply for various benefits programs in the previous 7 days. Differences denoted by stars ***, ** represent those statistically significant at the $p < 0.01$ and $p < 0.05$ levels, respectively.*

Changes in Unemployment

Unemployment has been a major issue in the COVID-19 crisis, with the official U.S. unemployment rate rising to 14.7% in April. A factor in food insecurity may be whether people have jobs and are earning an income, and therefore are able to purchase food. Table 6 below presents several measures of unemployment relevant to our analysis of food insecurity. For all of the analyses in this table, we have excluded respondents who report being retirees. Columns (1) and (2) show the share of non-retirees who worked for pay in May and April, respectively. **We find marginally significant increases in the share of respondents overall who reported working for pay, from 62% in April to 65% in May.** The share of respondents with children who worked for pay in the last week increased from 57% to 63%, again a marginally significant increase. Columns (4) and (5) show the share of respondents who reported being unemployed in the last week, including those who were temporarily laid-off or furloughed. There was a statistically significant decrease in the share unemployed from 29% to 23% from April to May among respondents with children.

Additionally, COVID-19 has changed circumstances for many people to put them in situations where they may have to take time off of work even if they are not unemployed. These include people:

- who must take off work to take care of children who are out of school due to COVID-19,
- who are taking care of someone with the disease or have the disease themselves, or
- those are taking care of someone elderly.

The final three columns present results for the share of people who were unemployed or were not at work last week due to COVID-related caregiving. We find a statistically significant decrease of 7 percentage points from 35% to 28% among respondents with children. The rates among respondents overall and respondents without children were statistically unchanged for both measure of unemployment.

Table 6. Measures of Unemployment

	Worked for Pay Last Week			Unemployed			Unemployed Including Those Not at Work Due to Caregiving		
	May 4–10	April 20–26	Difference	May 4–10	April 20–26	Difference	April 20–26	May 4–10	Difference
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All Respondents	65%	62%	3%*	22%	24%	-2%	26%	28%	-2%
Respondents with Children	63%	57%	5%*	23%	29%	-6%**	28%	35%	-7%**
Respondents without Children	66%	64%	2%	22%	22%	0%	26%	25%	1%

*Note: Unemployed in columns (4) through (6) includes those who reported not being at work due to being temporarily laid off, furloughed, or unemployed and looking for work. Columns (7) through (9) add those who report that they were not at their usual jobs due to caregiving. Retirees are not included. Differences denoted by stars **, * represent those statistically significant at the p<0.05 and p<0.1 levels, respectively.*

Food Insecurity and Food Pantry Interactions by State and Metropolitan Area

The COVID Impact Survey also collected representative information for a select set of states and metropolitan areas. Table 7 below presents estimates of rates of food insecurity and food pantry use in 10 states and 8 metropolitan areas, with 95% confidence intervals in the even columns. We combined information from the April and May surveys, as there were very few statistically significant changes across months.

The exceptions include that between April and May food insecurity in Florida declined, and food pantry use statistically increased in California and Florida and declined in Colorado. Notably more than 1 in 10 respondents in the states of New York and Texas reported receiving help from a food pantry in the previous seven days.

Table 7. Food Insecurity and Food Pantry Use: Selected U.S. States and Metro Areas

	Food Insecure		Received Help from a Food Pantry	
	Share of Respondents (1)	95% Confidence Interval (2)	Share of Respondents (3)	95% Confidence Interval (4)
<i>Selected U.S. States</i>				
California	25%	[22.9%, 27.6%]	7%	[6.0%, 8.9%]
Colorado	17%	[14.0%, 19.1%]	4%	[2.9%, 5.7%]
Florida	22%	[19.2%, 24.4%]	5%	[3.2%, 5.9%]
Louisiana	35%	[31.5%, 38.8%]	7%	[4.7%, 8.5%]
Minnesota	11%	[8.9%, 13.3%]	5%	[3.4%, 6.4%]
Missouri	22%	[18.6%, 24.6%]	7%	[5.1%, 8.7%]
Montana*	14%	[11.0%, 17.8%]	5%	[2.6%, 6.7%]
New York	26%	[22.8%, 28.6%]	11%	[8.9%, 13.1%]
Oregon	22%	[18.9%, 24.5%]	8%	[6.1%, 9.8%]
Texas	26%	[23.3%, 29.5%]	10%	[7.4%, 11.6%]
<i>Selected U.S. Metro Areas</i>				
Atlanta-Sandy Springs-Alpharetta, Georgia	19%	[16.3%, 21.8%]	6%	[4.2%, 7.6%]
Baltimore-Columbia-Towson, Maryland	19%	[16.5%, 22.3%]	5%	[3.2%, 6.3%]
Birmingham-Hoover, Alabama	26%	[22.4%, 29.1%]	4%	[2.5%, 5.5%]
Chicago-Naperville-Elgin, Illinois-Indiana-Wisconsin	23%	[20.3%, 26.0%]	5%	[3.6%, 6.6%]
Cleveland-Elyria, Ohio	21%	[17.9%, 23.5%]	7%	[5.1%, 8.6%]
Columbus, Ohio	22%	[19.2%, 25.1%]	7%	[5.2%, 9.0%]
Phoenix-Mesa-Chandler, Arizona	25%	[21.2%, 28.2%]	10%	[7.3%, 12.1%]
Pittsburgh, Pennsylvania	14%	[11.6%, 16.5%]	5%	[3.8%, 7.1%]

Note: Data averaged across the April and May surveys. *Data for Montana only available in the April survey.

Summary and Conclusions

Results from the second wave of the COVID Impact Survey continue to demonstrate a dramatically elevated rate of food insecurity, especially for respondents with children. Food insecurity rates are high across all subgroups of the population—all racial and ethnic groups, and across urban, suburban, and rural areas.

The extent of economic distress experienced by families continues to require an urgent and sustained response from the federal government. We will continue to analyze food insecurity and related outcomes in the next wave of the COVID Impact Survey, expected in June, to provide the evidence needed to track the evolution of both COVID-19's impact on the population and the response of the public and private sector.

i The authors thank Patricia Anderson, Lisa Barrow, Lauren Bauer, Kristin Butcher, Stacy Dean, Sheila Fleischhacker, Hilary Hoynes, Phil Levine, Joseph Llobrera, Dottie Rosenbaum, and Abigail Wozniak for helpful comments and discussions.

ii Abigail Wozniak, Joe Willey, Jennifer Benz, and Nick Hart. COVID Impact Survey: Version 1 [dataset]. Chicago, IL: National Opinion Research Center, 2020.

iii A few states (IN, ME, MO, NC, OR, SC, TX, and VA) have reported the number of households on SNAP in April. In these states, SNAP participation increased by 10% between March and April.