



The Impact of COVID-19 on Food Insecurity in Los Angeles County: April to May 2020

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Disclaimer

The views expressed herein are those of the authors and not necessarily those of Los Angeles County, the USC Dornsife College of Letters, Arts and Sciences, or the University of Southern California as a whole.

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Introduction

The COVID-19 pandemic has created a crisis in the U.S. food system, with mounting evidence of widespread food insecurity. Food insecurity refers to disruptions in food access and regular eating because of limited money or other resources. Food insecurity consistently leads to negative health outcomes: For children it has been linked to higher risk for asthma, mental health issues and worse overall health; for adults it is associated with obesity, diabetes, hypertension, depression and poor sleep (Dhurandhar, 2016; Gundersen & Ziliak, 2015).

Challenges in accessing sufficient food during the pandemic are likely occurring for a number of reasons. Safe-at-home orders, social distancing, and the closure of businesses, schools and community organizations are critical to arrest the spread of the virus. However, these policies are also making it difficult for some people to get food as they lose jobs and incomes, lose access to school meals, and struggle to acquire food if food outlets are closed or not fully stocked. Other sources of 'informal' food assistance may also be cut off as people lose contact with family and friends, places of worship, or community centers during the pandemic.

Our research uses data from USC's <u>Understanding Coronavirus in America</u> tracking survey to understand food insecurity during the COVID-19 crisis. We measure food insecurity using three items from the validated Food Insecurity Experience Survey that assess behavioral markers of mild, moderate, and severe levels of food insecurity (Cafiero, 2018), shown in Table 1 below. As is standard in research on food insecurity, a household is classified as being food insecure if they report experiencing moderate or severe levels of food insecurity.

Table 1: Food insecurity as measured on the Food Insecurity Experience Survey		
Food insecurity level	Behavioral marker	Item on the Food Insecurity Experience Survey
Mild	Uncertainty about the ability to obtain food	"In the past seven days, were you worried you would run out of food because of a lack of money or other resources?"
Moderate	Reduced food intake	"In the past seven days, did you eat less than you thought you should because of a lack of money or other resources?"
Severe	No food intake for an entire day or longer	"In the past seven days, did you go without eating for a whole day because of a lack of money or other resources?"

This report presents our key results after three waves of survey administration, assessed in early April, late April, and early May 2020.

 Rates of food insecurity in Los Angeles County during COVID-19 are unprecedented, and substantially higher than before the pandemic.

Overall, 39.5% of low-income households experienced food insecurity at some time between April and May 2020.

LOW-INCOME HOUSEHOLDS

Prior to COVID-19, 29.2% of L.A. County low income households, defined here and in subsequent text as households with incomes <300% of the federal poverty line, experienced food insecurity at some point **in the past year** (LAC DPH, 2017).

Using data from the Understanding Coronavirus in America study, we tracked food insecurity from early April until early May, during the first peak of the COVID-19 pandemic. We found that the proportion of low-income households that experienced food insecurity in **the past week** was 30.0% in early April, 21.9% in late April, and 16.9% in early May.

Overall, 39.5% of low-income households experienced food insecurity at some time between April and May 2020.

This means that more than 1 in 3 low-income households experienced food insecurity **over one month** at the start of the pandemic, which is *as high* as the proportion of low-income households that typically experience food insecurity **over a whole year**.

ALL HOUSEHOLDS

Although experiences of food insecurity during COVID-19 have been more common for households with lower incomes, food insecurity was experienced by diverse types of households across the county.

Of *all* L.A. County households, more than 1 in 4 (28.9%) experienced food insecurity from April to May; i.e., 955,466 households.

We also found that 6.9% of households were *consistently* food insecure in April and May (at each of the three measurement times); i.e., 228,122 households.

RACE AND ETHNICITY

There were notable racial and ethnic disparities in food insecurity. **Figure 1** shows the proportion of the L.A. County population within a specific race and ethnicity category who experienced food insecurity from April to May. Scientific literature has documented a long history of racial and ethnic disparities in food insecurity and found this to be caused by structural racism and unequal access to healthy opportunities (Odoms-Young & Bruce, 2018).

The "all other" category includes people who identified as Hawaiian/Pacific Islander, as American Indian or Alaska Native, and as two or more races. The number of people in each of these categories was less than 10, therefore we could not reliably calculate percentages of food insecurity for each of these groups individually.



Figure 1. Food insecurity in April and May 2020 across racial and ethnic groups

Source: University of Southern California's Understanding Coronavirus in America tracking survey

2. There are several important risk factors for food insecurity during COVID-19.

People in L.A. County who experienced food insecurity from April to May differed on many characteristics compared to people who did not experience food insecurity during this time (i.e., people who were "food secure"). A profile of the differences in some of these characteristics between "food secure" and "food insecure" households is shown in **Figure 2** below.

Overall, the majority of people who experienced food insecurity were female (57%) and Hispanic/Latinx (59%). One-third (36%) were 18 to 30 years old, and almost half (44%) had school-age children. Half (47%) had household incomes below the federal poverty line (<100% of the FPL), and more than one-quarter (27%) were unemployed.

We also found that 6% of people who had experienced food insecurity had been diagnosed with or thought they had COVID-19 between April and May, compared to just 2% of people who were food secure.

Several factors are independently associated with *significantly higher odds* of being food insecure during COVID-19 (from April to May) in statistical models that test for multiple factors that could increase or decrease someone's risk of food insecurity. We tested several risk factors (including gender, age, house-hold income, education level, employment status, household size, and others) and found that the following characteristics predicted food insecurity risk:

EMPLOYMENT STATUS

As expected, unemployment and having a household income below the federal poverty line (defined as < 100% of the FPL) increased the odds of food insecurity.

AGE

18 to 30 year olds had the highest risk for food insecurity. Compared to those 65 years old and older, this age group was 9 times more likely to experience food insecurity from April to May.

The majority of 18 to 30 year olds who experienced food insecurity were female, had household incomes below the federal poverty line, and identified as Hispanic/Latinx. Also, 47.6% of this group had school-age children at home and 67.7% of this group had a high school education or less.

There have been major concerns about food insecurity among older adults who have been advised to strictly adhere to safer-at-home orders and so may have difficulties grocery shopping or getting prepared meals. However, we found that adults aged 65+ years had the *lowest odds* of being food insecure compared to all other age groups. We also found that adults 65 years and over who lived alone *did not* have higher odds of experiencing food insecurity. One reason for this may be that people in this age category may be less affected



Figure 2. Profile of L.A. County populations with food Insecurity during COVID-19

Source: University of Southern California's Understanding Coronavirus in America tracking survey

by the economic impacts of the pandemic, such as layoffs and unemployment, and another might be that various food assistance efforts targeted older adults.

RACE AND ETHNICITY

Racial and ethnic disparities in food insecurity were evident (shown in Figure 1 above), but race and ethnicity were not associated with higher odds of experiencing food insecurity after income, unemployment and age were accounted for.

SOCIAL NETWORKS

Social networks and social support matter. Individuals' social networks — meaning the web of family and friends to whom they are connected — can play an important role in buffering against food insecurity because they can provide food, financial assistance, or other types of help (King, 2017).

We found that having fewer family and friends — i.e., a smaller social network — significantly increased someone's odds of being food insecure, after controlling for other important factors like age and income.

The average social network size for food secure vs. food insecure populations was:

- 33 among people who were **food secure** from April to May;
- 22 among people who experienced any food insecurity from April to May; and
- 13 among people who experienced **consistent food insecurity** from April to May.

People with food insecurity were also less likely to get food deliveries from family, compared to people who were food secure.

These differences in social connection and support are likely to reflect longer term differences in relationships with family and friends. However, this gap in "social capital" is likely to be exacerbated by social distancing during COVID-19, making it especially hard to get support from family and friends when it is needed — especially if someone has a smaller network of people to lean on.

COVID-19

Finally, the last risk factor we identified for food insecurity was COVID-19. People diagnosed with COVID-19, or who thought they had COVID-19 in April or May, had significantly higher odds of experiencing food insecurity in that same timeframe.

Of the population that had been diagnosed with COVID-19, or thought they had COVID-19 from early April to early May, 60.1% experienced food insecurity.

There may be factors we have not included in our statistical models that increase someone's risk for both COVID-19 and food insecurity (e.g., the geographic area in which they live), that could explain this effect; however, it is also possible that getting the virus *causes some people to become food insecure*. It may become difficult to go and get food and groceries while someone is sick and in quarantine at home, and family and friends who want to avoid contact with an infected person may be reluctant to deliver food.

The majority of people who experienced food insecurity were Female (57%) and Hispanic/Latinx (59%).



3. The majority of people experiencing food insecurity during COVID-19 were not receiving food assistance.

Many government and nongovernment food assistance programs exist in L.A. County and many have emerged or ramped up their efforts in response to COVID-19.

Among all households in L.A. County (food secure and insecure) surveyed in early May, 13.8% were receiving SNAP/CalFresh (also known as food stamps), 7.1% were receiving the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and 6.8% used a food pantry as a source of food. Of the households that received government food assistance (SNAP/ CalFresh or WIC) in May, just over half (54.4%) were food secure from April to May. The food assistance that these lower-income households receive may be helping to stave off food insecurity.

Importantly, we found that a small fraction of people who experienced food insecurity in April or May were getting food assistance.

When we asked people about the food assistance programs they used (they could report any programs they used, not just one), we found that among people who experienced food insecurity during this time:

- 20.1% were receiving SNAP/CalFresh; and
- 11.7% used a food pantry as a source of food.

We also found that among those who experienced food insecurity in April or May, a substantial proportion were likely eligible for government food assistance based off of their early 2020 income, but were *not* using these programs. Among the people who were food insecure from April to May but were *not* receiving SNAP/CalFresh benefits in May, at least 50.0% were likely eligible for this program. Only a small fraction of people who experienced food insecurity in April or May were getting government food assistance, even though at least 50% were likely eligible.

4 Grocery stores and "big box" stores remained key sources of food during COVID-19.

In May, more than 80% of the L.A. County population was getting food from grocery stores, and just over 50% was getting their food from 'big box' stores like Walmart or Costco.

About 30% of the L.A. County population was getting at least some of their food delivered to their home, rather than getting it in person. Most of these deliveries were made by the businesses and stores selling the food, and by paid delivery services; however, friends, neighbors, and family members were also helping with food deliveries for many people.



Summary and Next Steps

COVID-19 has led to a startling increase in food insecurity in L.A. County. Those at highest risk are young adults, people with low household incomes who are unemployed, and people with fewer family and friends. Contracting the coronavirus may also place people at higher risk for food insecurity.

- Our team is continuing to look at changes in food insecurity during the pandemic and how people in L.A. County are getting food for example, where they are getting their food (grocery stores, markets, corner stores, restaurants), how far they have to travel to get food, if they are getting food delivered, and how easy or hard it is for them to access food in their local neighborhoods. We will also examine if the receipt of different types of food assistance and other government assistance programs, or combinations of programs, can help families reduce their risk of experiencing food insecurity in the longer term. We plan to release additional reports, including July 2020 data, later this summer.
- Another task is to explore whether or not the aforementioned patterns vary by location; for example, how has the proximity of residences to various kinds of food outlets across the county affected food insecurity and what will the geographic distribution of food outlets look like as the economy starts up again. The early evidence from retail and other sectors is that we are likely to see some businesses fail, and there is compelling evidence to believe these losses, which may include food outlet closures, will be more pronounced in some areas than in others.
- Another next step is to understand how the COVID-19 crisis has changed what individuals with food insecurity are experiencing and why food assistance is not always reaching those who are eligible. One way to do this would be to interview individuals in the USC Understanding Coronavirus in America sample who reported experiencing food insecurity, and the barriers they face in accessing food and food assistance programs. Findings from these interviews could then be followed up with the larger L.A. County survey sample, to examine the prevalence of those barriers, and to whom they occur. These findings would serve to improve food programs and interventions.

Altogether, this work will help us better understand the impact that the COVID-19 pandemic has had on peoples' ability to access food and food insecurity for residents of L.A. County. It can help to develop long-term strategies for food justice, to help ensure people at risk for food insecurity have the resources and access to food that they need as the pandemic unfolds.



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Survey Methodology

This report is based on data from three waves of the Understanding Coronavirus in America tracking survey, administered by the USC Dornsife Center for Economic and Social Research (CESR). Respondents are members of CESR's Understanding America Study (UAS) probability-based internet panel who participated in tracking survey waves conducted between April 1 and May 18, 2020. The survey is conducted in English and Spanish. All results are weighted to CPS benchmarks, accounting for sample design and non-response. Weighted sample sizes for each survey wave in this report range from 1,015 to 1,216, and the sample size for participants that answered all three waves was 929 (weighted N = 905). Estimates based on overall results have a margin of sampling error (MOSE) of +/- 3 percentage points for each wave.

Participants were recruited for the UAS internet panel using an ABS household sample; internet connected tablets are provided as needed. Graphical results and full methodological details for the tracking survey are available at https://covid19pulse.usc.edu/. Questionnaires with full text of questions, toplines, data files, and press releases are available at https://uasdata.usc.edu/page/Covid-19+Home. Methodological details for the UAS panel are available at https://uasdata.usc.edu/page/Covid-19+Home. Methodological details for the UAS panel are available at https://uasdata.usc.edu/page/Covid-19+Home. Methodological details for the UAS panel are available at https://uasdata.usc.edu. The Understanding Coronavirus in America Tracking Survey has been funded in part by the Bill & Melinda Gates Foundation, the University of Southern California, and many others who have contributed questions to individual waves or sets of waves.

Sample sizes and MOSE for subgroups in each section of this analysis

Section 1. Analysis in this section is based on sample sizes of between 905 to 1,212 participants, with a MOSE of +/- 3 percentage points for the food insecurity categories. Analysis within each race and ethnicity category in Figure 1 is based on the following sample sizes: Hispanic/Latinx had 412 participants, with a MOSE of +/- 5 percentage points; White had 278 participants, with a MOSE of +/- 6 percentage points; Black/African American had 75 participants, with a MOSE of +/- 11 percentage points; Asian had 119 participants, with a MOSE of +/- 9 percentage points; Other had 22 participants, with a MOSE of +/- 21 percentage points.

Section 2. For the descriptive analysis in this section, summarized in Figure 2, analysis is based on sample sizes of between 262 (food insecure) and 644 (food secure) participants, with a MOSE of +/- 6 percentage points for the characteristics of food insecure participants, and a MOSE of +/- 4 percentage points for the characteristics of food secure participants. The regression analysis is based on a sample size of 905 participants, with statistically significant effects reported.

Section 3. Analysis in this section is based on a sample size of 262 participants who experienced food insecurity from April to May 2020, with a MOSE of +/- 6 percentage points for the reported characteristics.

Section 4. Analysis in this section is based on a sample size of 1,157 participants surveyed in early May, with a MOSE of +/- $_3$ percentage points for the reported characteristics.

The sample sizes and all results are weighted.

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