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COVID-19 Pandemic One Year Later: Food Insecurity and Food Assistance in Arizona

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Key Findings

- In our sample during the first four months of 2021, food insecurity rates in Arizona were higher (28%) compared to those reported in the year prior to the pandemic (22%). The largest increase was seen in households with children – jumping from 32% to 45%.
- Racial/ethnic disparities were observed in food insecurity rates prior to the pandemic, with non-Hispanic White households experiencing the lowest rate of food insecurity (15%). Similarly, the increase in food insecurity during the pandemic differed greatly across households of different races/ethnicities, with AIAN (American Indian and Alaskan Native) households experiencing the greatest increase (from 30% to 43%).
- 36% of households have experienced some form of job disruption since the onset of the pandemic (March 2020). The most common job disruption was reduction in hours or income (19%), followed by job loss (17%) and furlough (7%). Job disruptions were associated with considerably higher rates of food insecurity for all household types, but particularly for household with children (65%).
- The most significant food-related concern for Arizona households was affordability: on a scale from 1 (not worried at all) to 6 (extremely worried), food affordability corresponded to a rating of 4.8 for food insecure households and 3.6 for food secure households.

Introduction

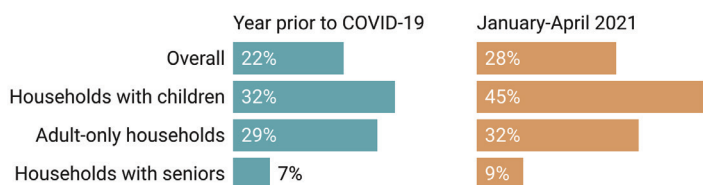
The onset of the COVID-19 pandemic in March 2020 and the resulting closures of schools, businesses, and restaurants led to a massive economic disruption in Arizona. The unemployment rate at its peak reached 14.2% (April 2020)—a level even higher than during the great recession of 2008.^{1,2} High unemployment rates, coupled with a breakdown of local and national food supply chains, led to a remarkable increase in food insecurity rates among Arizona households.^{3,4} More than a year later, as vaccines became widely available and restrictions were lifted, schools and business began to reopen, and most activities slowly returned to pre-pandemic standards. The effects of the pandemic on food insecurity and food-related behaviors, however, might have long-lasting effects. This brief describes levels of food insecurity, food assistance program participation, job disruption, and food related behaviors among 814 households in Arizona, in the 12 months preceding the pandemic (March 2019 – March 2020) and approximately one year after the onset of the COVID-19 pandemic (January 2021 – April 2021). Data collection took place between April and May 2021.

Food Insecurity

Food insecurity is defined as having limited or inconsistent access to nutritious and affordable food. Respondents were asked six yes/no questions about food availability and affordability in their households, following the U.S. Department of Agriculture's (USDA) six-item short form of the Food Security Survey Module.⁵ Households were classified as food insecure if respondents answered affirmatively to two or more questions.⁵ These food insecurity questions were

asked for the two time periods under examination—the 12 months prior to the pandemic (March 2019 – March 2020) and the first four months of 2021, which corresponded to the four months prior to the survey (approximately January–April 2021).

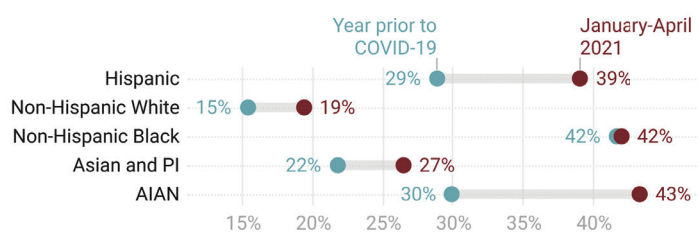
Figure 1: Food insecurity rates by household type



Note: Households with at least one child (0-18 years-old) were classified as ‘households with children.’ Among households without children, we distinguished between ‘adult-only households’ if all members were between 19 and 64 years of age, and ‘households with seniors’ if at least one member was 65 or older.

- In the first four months in 2021, about 28% of Arizona households were food insecure. This was an increase from about 22% in the year prior to the COVID-19 pandemic (Figure 1).
- While food insecurity increased for all household types, households with children experienced the largest increase (from 32% to 45%) (Figure 1).

Figure 2: Food insecurity rates by racial/ethnic group



Note: PI indicates Pacific Islanders (including Native Hawaiians) and AIAN indicates American Indians and Alaskan Native. Because of a small sample size (n=19), we are not reporting the data for households whose respondent self-identified with ‘Other/multiple races.’

- American Indian and Alaskan Native (AIAN) households experienced the highest increase in food insecurity, which reached 43% in the first four months of 2021, from 30% in the year prior to the pandemic. One year into the pandemic, food insecurity was higher among AIAN households than it was for any other racial/ethnic group (Figure 2).

- Non-Hispanic Black households experienced the second highest level of food insecurity (42%) in the first four months of 2021 but experienced no further increase, perhaps because of the already-high level of food insecurity prior to the pandemic (Figure 2).
- Hispanic households experienced the second highest increase in food insecurity during the first four months of 2021, with the rate increasing from 29% to 39% (Figure 2).
- The food insecurity rate for non-Hispanic White households was the lowest both prior to the pandemic and during the first four months of 2021 (Figure 2).

Job Disruptions

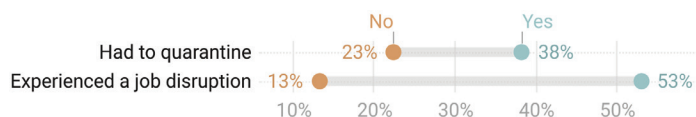
After reaching the record-high level of 14.2% in April 2020 (from 4.9% in February 2020), the unemployment rate has fluctuated between 6.7 and 6.9% since the end of 2020. In June 2021 (the last available data point), the rate was 6.8%.¹ While the economy has rebounded, unemployment is still significantly higher than it was prior to the pandemic and tens of thousands of people are still out of work or underemployed. The survey asked whether respondents or anyone in their household had experienced any job disruptions since the onset of the pandemic (March 2020). In case of an affirmative answer, follow-up questions were asked about the type (i.e., job loss; hours/income reduction; furlough) of the job disruption(s).

Figure 3: Changes in employment status since the onset of the pandemic (March 2020)



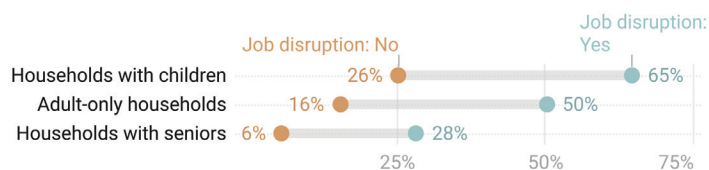
- 36% of households have experienced some form of job disruption since the onset of the pandemic (Figure 3).
- The most common job disruption was a reduction in work hours or income (19%), followed by job loss (17%), and being furloughed (7%) (Figure 3).
- Households with children and adult-only households were more likely to experience a job disruption (49% and 47%, respectively) than were households with seniors (15%) (not shown).

Figure 4: Food insecurity rates during the first four months of 2021 by quarantine and job disruption status



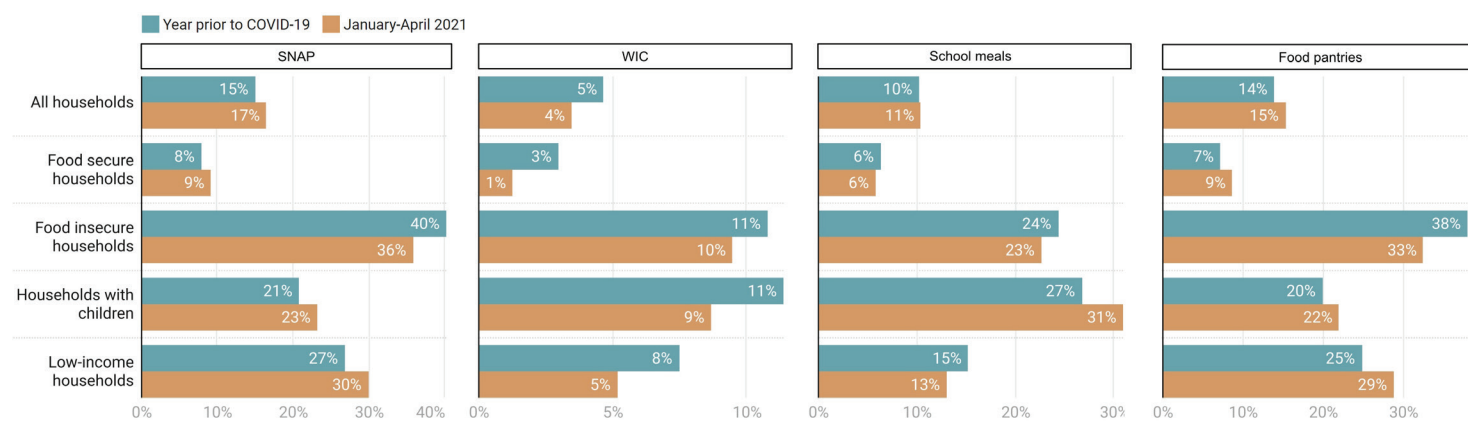
- 53% of households that experienced a job disruption were food insecure, compared with 13% of households that did not experience a job disruption (Figure 4).
- Similarly, those who had to quarantine were more likely to be food insecure: 38% compared with 23% (Figure 4).

Figure 5: Food insecurity rates during the first four months of 2021 by job disruption status for different household types



Note: Households with at least one child (0-18 years-old) were classified as ‘households with children.’ Among households without children, we distinguished between ‘adult-only households’ if all members were between 19 and 64 years of age, and ‘households with seniors’ if at least one member was 65 or older.

Figure 6: Food assistance program participation prior to and one year into the pandemic by household type



Note: Households with children were those households with at least one child (0-18 years-old). Households fall under the ‘low-income’ category if their 2019 annual income was \$50,000 or less.

- Experiencing a job disruption was associated with considerably higher rates of food insecurity for all types of households (Figure 5).
- One in two (50%) adult-only households and almost two in three (65%) households with children that reported experiencing a job disruption (at some point since the onset of the pandemic) were food insecure during the first 4 months of 2021 (Figure 5).

Food Assistance Program Participation

Federal food safety net programs are designed to meet the needs of lower-income families, especially during periods of economic downturn. In response to the pandemic, USDA offered a number of waivers to facilitate program use. Respondents reported their participation in SNAP (Supplemental Nutrition Assistance Program), WIC (Supplemental Nutrition Program for Women, Infants, and Children), school meals, and food pantries, both during the year prior to the pandemic and during the first 4 months of 2021. Additional questions about participation in P-EBT (Pandemic Electronic Benefits Transfer) were asked only for the first months of 2021, as this program was created during the pandemic.

The online application [for SNAP] is impossible to complete.

—41-year-old non-Hispanic White female from Maricopa county

Most WIC foods have been bought when we go shopping.

—18-year-old Hispanic female from Pima county

- Overall, in our sample, self-reported SNAP participation and pantry use increased slightly in the period between January 2021 and April 2021 compared to the year prior to the pandemic, while school meal participation remained the same, and WIC use declined slightly (Figure 6).
- For low-income households, participation in SNAP and food pantries increased slightly during the first four months of 2021, but WIC and school meal participation showed opposite trends.
- Notably, SNAP, school meal, and food pantry use increased for households with children in the first four months of 2021, while WIC participation declined slightly.
- A smaller proportion of food insecure households reported participating in SNAP, WIC, school meals, and food pantry in the first four months of 2021.

[School meals] have been a great help to me and my family

—21-year-old Hispanic female from Maricopa county

P-EBT Participation

In April 2020, the Arizona Department of Education started providing a novel benefit called P-EBT (pandemic electronic benefits transfer) to families whose children were eligible for free and reduced-price school meals. The program aims to cover the cost of school meals students did not receive while schools transitioned fully or partly to a remote learning model.⁷ In January 2021, the benefits were expanded to include eligible childcare facilities. Overall, in the first four months of 2021, 21% of eligible households with children in our sample reported using P-EBT.

Food Sources and Worries

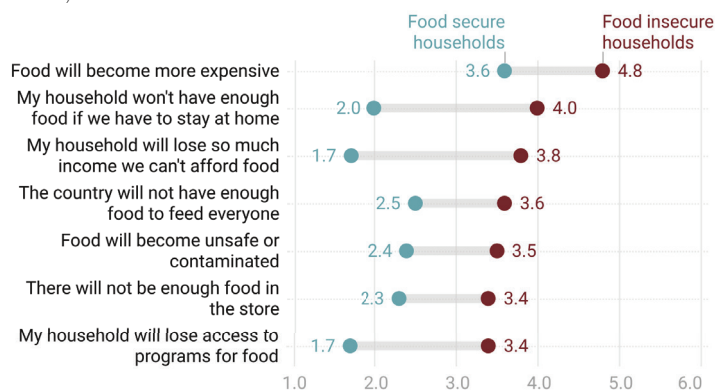
The nature of disruptions to food systems has changed through the course of the COVID-19 pandemic. Food production was disrupted by stay-at-home orders and closures of facilities, particularly in the meat industry. Commensurately, in 2020, food prices experienced an annualized increase of approximately 5% for many commodities.⁸ This occurred at a time when many households had reduced income due to unemployment

or curtailed work opportunities. Respondents were asked to rate their food-related concerns on a scale from 1 (not worried at all) to 6 (extremely worried) (Figure 7), and to report on their food shopping practices both prior to and one year into the pandemic (Figure 8).

We don't have a car to pick up school meals.

—50-year-old non-Hispanic White female from Maricopa county

Figure 7: Arizona households' level of food-related concerns one year into the pandemic (January-April 2021)



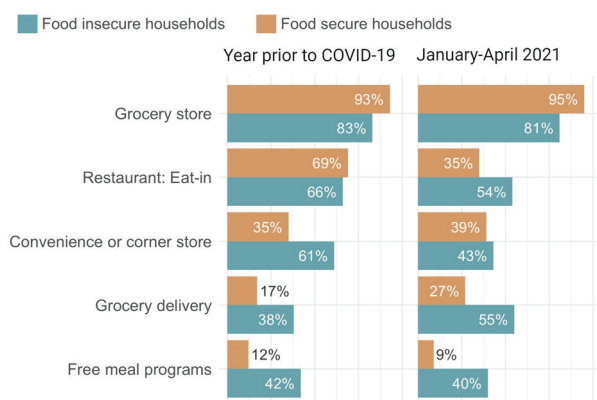
NOTE: For each item, respondents were asked to quantify their level of concern on a scale ranging from 1 (not worried at all) to 6 (extremely worried).

- Arizona households were mostly concerned about the affordability and, to a lesser extent, the availability of food.
- Food insecure households particularly expressed concerns regarding the cost of food and the ability to satisfy food needs if stay-at-home orders were in effect.
- Even food secure households expressed moderate concern about food affordability during the pandemic.

The food pantry near me is only open for 4 hours on Wednesdays when I work.

—26-year-old non-Hispanic White female from Pima county

Figure 8: Arizona households’ use of different food sources prior to and one year into the pandemic (January-April 2021)



Note: Free meal programs included food obtained from food pantries, senior centers, religious institutions, and other places providing free food.

Food acquisition strategies have shifted during the pandemic. Many counties enacted limits on restaurant dining resulting in a 35% drop in restaurant dining by food secure households. Grocery stores were identified as essential services and were therefore less affected by government interventions.

- Household reliance on grocery stores during the pandemic has been consistent with pre-pandemic patterns (Figure 8).
- Food insecure households reduced their reliance on convenience/corner stores in the first four months of 2021 and increased their use of grocery delivery services (38% to 55%) (Figure 8).
- The use of free meal programs in the first four months of 2021 has been only slightly lower than prior to the pandemic for both food secure and food insecure households (Figure 8).

Implications

- Despite the prevalence of job disruptions and increased food insecurity, the participation rate in the main federal food assistance programs only changed slightly during the first months of the pandemic.⁶ One year into the pandemic, food insecurity rates in Arizona continue to be higher (28%) than they were in 2019 (22%). Nonetheless, we only saw a slight change in the use of food assistance programs and only by some types of households.

- Specifically, SNAP and school meal program use increased among households with children, while WIC use declined. Similarly, more low-income households participated in SNAP, but fewer did so in school meals and WIC. This differential uptake of food assistance programs during the pandemic sheds light on program implementation and potentially the impact of flexibilities offered through various USDA waivers. A recent study showed that some WIC participants were not fully aware of waivers and extensions available. Those who were aware of those options still encountered obstacles in redeeming their full benefits.⁹
- Enhanced benefits, flexibility in program enrollment and recertification, and delivery innovations offered through USDA waivers may have contributed to small increases in SNAP participation observed among low-income households and households with children. Lack of similar trends for school meals and WIC participation calls for exploring additional delivery modes and outreach to ensure those in need are able to benefit from these programs.
- The remarkable decrease in participation in *all* food assistance programs among food insecure households might be partially attributable to the increase in the number of newly food insecure households (households that were not food insecure prior to the pandemic). Newly food insecure households may not be aware of the programs or how to navigate the system to enroll in those programs. During emergency situations, food assistance programs should make requirements clear and enrollment as easy as possible, so that a larger number of households in need can benefit from the programs.

[Food pantries] are very helpful to me and my family

—65-year-old Hispanic female from Pinal county

Study Approach

The survey instrument used for the current study is publicly available.¹⁰ We surveyed 814 Arizona residents (age 18 or over) in April-May 2021 using Qualtrics online panels. The current brief reports results based on 696 respondents with complete data on all variables used in the analysis. Survey respondents were selected to be representative of the Arizona population, with an oversampling of respondents from low-income households.

The respondents in the full sample resided in 84 towns, from 14 of the 15 counties in Arizona. Most respondents lived in Maricopa county (61%), followed by Pima (15%) and Pinal (6%) counties. Respondents were 18-89 years old, with an average age of 48. Almost half (45%) of the respondents were from low-income households (i.e., with an annual income in 2019 lower than \$50,000). The racial/ethnic composition of the sample was as follows: 52% non-Hispanic White; 26% Hispanic; 8% Black; 6% Asian or Pacific Islander; 5% American Indian or Alaskan Native; and 3% ‘Other/Multiple’ race.

Participants were asked to answer questions on a variety of topics, including food security, food access, food assistance program participation, employment status, as well as household and individual demographic characteristics. All analyses used sampling weights so that the sample reflects the Arizona income, race, and ethnicity distribution in 2019, based on the American Community Survey 5-year estimates. Limitations of surveys like the current one may include underrepresentation of groups with low literacy or inability to take survey in English/Spanish, without cell phone or Internet, facing high pandemic demands, and/or with low trust of surveys. Self-selection into the sample might be even more relevant for older adults (age 65+), as internet use is less prevalent among this demographic group. Additionally, responses may be influenced by factors such as social desirability, recall bias, misunderstanding, or rushing to complete.

The period from March 2019 to March 10, 2020 was referred to as ‘prior to the pandemic,’ while the period including the first four months of 2021 (January – April) aims at capturing respondents’ experiences (approximately) one year into the pandemic.

A series of briefs from this survey are available at asufoodpolicy.org and nfactresearch.org.

Funding Statement

This project was supported by a COVID-19 seed grant from the College of Health Solutions, Arizona State University.

About NFACT

This research is conducted as part of The National Food Access and COVID Research Team (NFACT). NFACT is a national collaboration of researchers committed to rigorous, comparative, and timely food access research during the time of COVID-19. We do this through collaborative, open access research that prioritizes communication to key decision-makers while building our scientific understanding of food system behaviors and policies. To learn more visit nfactresearch.org.

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