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Job Disruptions During the First Four Months of the COVID-19 Pandemic and Their Impacts on Food Security in Arizona Frederick Driesen, BS<sup>1</sup> Francesco Acciai, PhD<sup>2</sup> Anna Josephson, PhD<sup>1</sup> Aggie J. Yellow Horse, PhD<sup>3</sup> Sarah Martinelli, MS, RD, SNS<sup>2</sup> Punam Ohri-Vachaspati RD, PhD<sup>2</sup>

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#### Introduction

With more than 19 million confirmed COVID-19 cases across the United States<sup>1</sup> and over 500,000 in Arizona<sup>1</sup> as of December 2020, the ongoing pandemic has had devastating impacts on local, national, and global economies. Prior to the pandemic (February 2020), based on U.S. Bureau of Labor Statistics data, the unemployment rate in Arizona was 6.5%,<sup>2</sup> compared to 4.9% at the national level.<sup>3</sup> Since the beginning of the COVID-19 pandemic (March 2020), the United States has experienced striking increases in the unemployment rate, reaching 13.2% in April. Similarly, in Arizona, the unemployment rate jumped to over 13.5% in April. The unemployment rates have since declined both nationally and in Arizona but remain higher compared to February 2020. In November 2020 (the most recent data available), the national unemployment rate was 6.7%, while in Arizona the rate was 7.8%—the 10th highest unemployment rate among all U.S. states.<sup>4</sup>

Using data collected from a representative sample of 620 Arizona residents, this brief provides an overview on changes in employment status since the onset of the COVID-19 pandemic (March 2020) and their impacts on food security in Arizona. Changes in employment status included job loss, being furloughed, as well as experiencing a reduction in hours and/or income. Throughout the brief, we refer to these changes in employment status as *job disruptions*. We examined the prevalence of such disruptions among different population groups, as well as their associations with food security, and food-related concerns and difficulties faced by Arizona households.

### **Key Findings**

- Over a third of Arizona households (36%) experienced a job disruption in the first four months of the COVID-19 pandemic.
- A much higher proportion of Hispanic households (59%) experienced a job disruption than non-Hispanic white households (22%).
- Low-income households, already at a disadvantage, were among the most impacted, with almost half of the households making less than \$25,000 (in 2019) experiencing a job disruption during the pandemic.
- Prevalence of food insecurity was considerably higher among households that experienced a job disruption (57%) than among households that did not experience any job disruption (19%).
- Almost three quarters of Hispanic households with job disruption faced food insecurity
- Since the beginning of the pandemic, households worried about the cost, sufficiency, and safety of food, as well as access to food assistance programs. These concerns were heightened among households that experienced a job disruption.

# Changes in Employment Status among Arizona Households

Over a third of Arizona households experienced a job disruption in the first four months of the COVID-19 pandemic.

- Since the onset of the pandemic in March 2020, 36% of respondents reported that they or someone in their household experienced some type of job disruption, including job loss, being furloughed, or having their hours and/or income reduced (Figure 1).
- In our sample, almost one in five respondents stated that they or someone in their household had experienced a job loss since the onset of the pandemic (19%) (Figure 1), which is similar to estimates based on our national level analysis.<sup>5</sup>

**Figure 1.** Changes in employment status in Arizona since March 2020

Any job disruption	36%
Hours/income reduced	23%
Job loss	19%
Furloughed	15%

• A much higher proportion of Hispanic households (59%) reported experiencing a job disruption than non-Hispanic white households (22%), and all other households combined (42%) (Figure 2).

**Figure 2.** Changes in employment status in Arizona since March 2020 by race/ethnicity

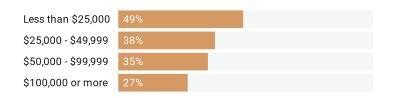


Note: The sample sizes for non-Hispanic Blacks, Asians, Hawaiian and other Pacific Islanders, American Indians and Alaska Natives, and other/multiple races were too small to analyze separately. Therefore, these groups were combined into the "Other" category.

• Job disruptions disproportionately affected lower income households. Almost half (49%) of Arizona households which have annual household income

was less than \$25,000 experienced a job disruption, while households with higher incomes reported a progressively lower rate of job disruptions (Figure 3).

**Figure 3.** Changes in employment status in Arizona since March 2020 by household income



### Job Disruptions and Food Security

Experiencing job disruptions during the first four months of the pandemic was associated with higher rates of food insecurity.

The U.S. Department of Agriculture (USDA) defines food insecurity as a lack of consistent access to enough food for an active, healthy life.<sup>6</sup> We measured food insecurity using the USDA's validated six-item household food insecurity survey module.<sup>7</sup> Respondents who answered affirmatively to two or more of the food insecurity questions were considered food insecure. Similar to the job disruption question, the six food security questions referred to the first four months of the COVID-19 pandemic.

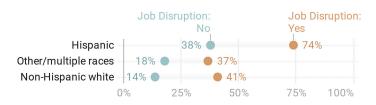
**Figure 4.** Food insecurity rates by changes in employment status in Arizona since March 2020

Food insecure Food secure						
Job disruption: Yes	57%		43%			
Job disruption: No	19%	81%				

 Overall, 33% of households in our sample were food insecure during the first four months of the COVID-19 pandemic. The food insecurity rate was considerably higher among households that experienced a job disruption (57%) than among households that did not experience a job disruption (19%) (Figure 4).

- Job disruptions were associated with considerably higher rates of food insecurity for households of all racial/ethnic groups. (Figure 5).
- Food insecurity was more prevalent among Hispanic households, regardless of changes in employment status (Figure 5).
- The food insecurity rate for Hispanic households that experienced a job disruption was the highest (74%), followed by the rate for non-Hispanic white households that experienced a job disruption (41%)—a rate about 3 times higher than that for non-Hispanic white households without job disruptions (Figure 5).

**Figure 5.** Percentage of food insecure households by changes in employment status and race/ethnicity



Note: The sample sizes for non-Hispanic Blacks, Asians, Hawaiian and other Pacific Islanders, American Indians and Alaska Natives, and other/multiple races were too small to analyze separately. Therefore, these groups were combined into the "Other" category.

# Food-related Concerns and Behavioral Adaptions, by Household Job Disruption Status

Since the onset of the COVID-19 pandemic, Arizona households were worried about food costs, food safety, and food sufficiency. They also modified some of their food-related behaviors.

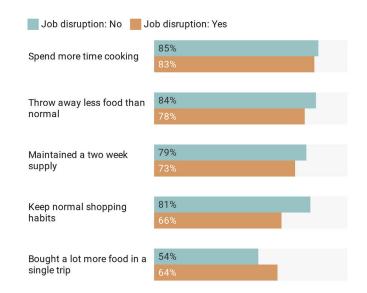
- Most respondents, regardless of having experienced any form of job disruptions, were concerned that food would become too expensive for them to afford (82% for households with a job disruption, 62% for households without a job disruption) (Figure 6).
- The majority of households that experienced a job disruption were also worried that they could lose access to food assistance programs (58%), there would not be enough food in the country (57%), food would become unsafe (56%), or that there would not be enough food in the store (55%) (Figure 6).

**Figure 6.** Food-related worries of households by change in employment status

Job disruption: No Job d	isruption: Yes	
	Job disruption: No	Job disruption: Yes
Food will become too expensive	62%	82%
Household will lose access to food assistance programs	26%	58%
Not enough food in the country	38%	57%
Food will become unsafe	40%	56%
Household will not have enough food if we have to stay home	30%	56%
Not enough food in store	35%	55%
Household will not have enough food if we lose income	21%	55%

- Most households reported spending more time cooking (85% for households without job disruptions and 83% for households with job disruptions), throwing away less food than normal (84% and 78%, respectively), and maintaining a two-week supply of food (79% and 73%, respectively). (Figure 7).
- Compared to households that did not experience any job disruptions, households that experienced a job disruption were more likely to buy more items in a single shopping trip (64% vs. 54%) and were less likely to maintain their normal shopping habits (66% vs. 81%) (Figure 7).

**Figure 7.** Food-related behavioral changes for households by change in employment status



# **Policy Implications**

- There is great uncertainty surrounding the economy because of the ongoing COVID-19 pandemic; and unemployment rates remain high in Arizona. Assistance is much needed for families experiencing job loss, but also for those where members lost income because of furloughs and reduced hours. Ongoing assistance is required to mitigate the negative impacts of all types of job disruptions.
- Outreach for supportive programs and services should focus on households that are more likely to be impacted by job disruptions, such as lower-income households and Hispanic households.
- Our study showed that Arizona households that faced a job disruption were almost three times as likely to experience food insecurity. More than half of the households experiencing job disruption were also worried about losing access to food assistance benefits. Government and non-profit agencies can work together to help facilitate access to and participation in food assistance programs.
- Households' worries about cost, sufficiency, and safety of food, particularly among those experiencing job disruptions, is a concern that needs attention from retail and government sectors.

# Methods

In July-August 2020, a sample of 620 adult Arizona residents responded to an online survey of households contacted through a survey research firm (Qualtrics). Survey respondents were selected to be representative of Arizona population, with an over-sampling of respondents from low-income households. The respondents in the sample reside in 75 different towns, from 14 out of the 15 counties in AZ. Most respondents lived in Maricopa county (60%), followed by Pima (17%), and Pinal (6%) counties. Respondents were 18-86 years old, with the average age being 47. Half (49%) of the respondents were from low-income households (i.e., with an annual income in 2019 lower than \$50,000); 54% were non-Hispanic white and 34% were Hispanic; 39% had a college degree; 17% were foreign-born. Participants were asked to answer questions on a variety of topics including food security, food access, food assistance program participation, as well as households and individual demographic characteristics. All analyses were adjusted for sampling weights so that results can be generalized to all Arizona households. The period from March 2019 to

March 10, 2020 was referred to as prior to the pandemic while the period after March 11, 2020 aims at capturing what has changed since the pandemic. A series of briefs from this survey are available at asufoodpolicy.org and nfactresearch.org.

# Acknowledgments

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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#### Suggested Citation

Driesen F, Acciai F, Josephson A, Yellow Horse AJ, Martinelli S, Ohri-Vachaspati P. Job Disruptions During the First Four Months of the COVID-19 Pandemic and Their Impacts on Food Security in Arizona. College of Health Solutions, Arizona State University, December 2020.