

# **Consumer Behavior During the COVID-19 Pandemic: An Analysis of Food Purchasing and Management Behaviors in U.S. Households Through the Lens of Food System Resilience**

<sup>1</sup>Kathryn Bender, <sup>2</sup>Aishwarya Badiger, <sup>2</sup>Brian Roe, <sup>2</sup>Yiheng Shu and <sup>3</sup>Danyi Qi

<sup>1</sup>*Allegheny College, Meadville, PA 16335, United States*

<sup>2</sup>*The Ohio State University, Columbus, OH 43210, United States*

<sup>3</sup>*Louisiana State University, Baton Rouge, LA 70803, United States*

## **Abstract**

The COVID-19 pandemic has stimulated considerable interest in the resilience of the U.S. food system. Less attention has been paid to the resiliency characteristics of the final link in the food system - individual households. We use national survey data from July 2020 to understand the food acquisition, preparation, and management strategies that households implemented in response to the pandemic. We find a substantial increase in the amount of food prepared and consumed at home which scales with respondents' time availability, perceived risks of dining out, and pandemic-induced income disruption. We then identify several household responses to support this increase in home food consumption that are in line with practices suggested to enhance resiliency at other links in the food supply chain, including increased cold storage capacity and enhanced in-house capability via improved cooking and food management skills. We discuss how responses such as improved food skills can reduce the propagation of shocks through the supply chain by allowing greater flexibility and less waste, while actions such as increased home cold storage capacity could undermine system resilience by exacerbating bullwhip effects, i.e., amplifying consumer demand shocks that are propagated to upstream food supply chain actors.

**Keywords:** COVID-19 pandemic, Food management, Food waste, Cold storage

**Acknowledgments:** Roe recognizes funding from the Ohio Agricultural Research and Development Center (Award #OHOA1632). Qi recognizes grant support from Louisiana Board of Regents (AWD-002915).