#### University at Albany, State University of New York

### **Scholars Archive**

Environmental Health Sciences Faculty Scholarship

**Environmental Health Sciences** 

Fall 2021

## Impacts of the First Year of COVID-19 on Food Security in the New York's Capital Region

Beth J. Feingold

University at Albany, State University of New York, bfeingold@albany.edu

Mariana M. Mariana M Torres Arroyo

University at Albany, State University of New York, mtorresarroyo@albany.edu

Akiko S. Hosler

University at Albany, State University of New York, ahosler@albany.edu

**Trevor Craft** 

University at Albany, State University of New York, tcraft@albany.edu

The University at Albany community has made this article openly available. Hinn Wai Lwin Myo

Blazasty bandany, state ancessy benefit & AR 4 myo@albany.edu

Follow this and additional works at: https://scholarsarchive.library.albany.edu/ehs\_fac\_scholar next page for additional authors

Part of the Food Studies Commons, Health and Medical Administration Commons, and the Virus

**Diseases Commons** 

#### **Recommended Citation**

Feingold, Beth J.; Mariana M Torres Arroyo, Mariana M.; Hosler, Akiko S.; Craft, Trevor; Myo, Hnin Wai Lwin; Bozlak, Christine T.; Romeiko, Xiaobo Xue; Pernicka, Natasha; Crasto-Donnelly, Peter; Klein, Amy; Pettigrew, Stacy; Atwood, Ben; and Neff, Roni, "Impacts of the First Year of COVID-19 on Food Security in the New York's Capital Region" (2021). *Environmental Health Sciences Faculty Scholarship*. 5. https://scholarsarchive.library.albany.edu/ehs\_fac\_scholar/5

#### License

This Issue Brief is brought to you for free and open access by the Environmental Health Sciences at Scholars Archive. It has been accepted for inclusion in Environmental Health Sciences Faculty Scholarship by an authorized administrator of Scholars Archive.

Please see Terms of Use. For more information, please contact scholarsarchive@albany.edu.

Authors
Beth J. Feingold, Mariana M. Mariana M Torres Arroyo, Akiko S. Hosler, Trevor Craft, Hnin Wai Lwin My Christine T. Bozlak, Xiaobo Xue Romeiko, Natasha Pernicka, Peter Crasto-Donnelly, Amy Klein, Stacy Pettigrew, Ben Atwood, and Roni Neff



# Impacts of the First Year of COVID-19 on Food Security in the New York's Capital Region

Food security decreased among regional residents across all income groups and backgrounds

Beth J Feingold<sup>1</sup>, Mariana M Torres Arroyo<sup>1</sup>, Akiko S Hosler<sup>1</sup>, Trevor Craft<sup>2</sup>, Hnin Wai Lwin Myo<sup>1</sup>, Christine T Bozlak<sup>1</sup>, Xiaobo Xue Romeiko<sup>1</sup>, Natasha Pernicka<sup>3</sup>, Peter Crasto-Donnelly<sup>3</sup>, Amy Klein<sup>4</sup>, Stacy Pettigrew<sup>5</sup>, Ben Atwood<sup>5</sup>, Roni Neff<sup>6</sup>

1 University at Albany School of Public Health; 2 University at Albany Rockefeller College of Public Affairs; 3 The Food Pantries For The Capital District; 4 Capital Roots; 5 RADIX Ecological Sustainability Center; 6 Johns Hopkins Bloomberg School of Public Health

### **Background**

The COVID-19 pandemic has disrupted people's lives and food systems in the United States and worldwide, resulting in impacts on different aspects of food security. To understand how this has affected households in New York's Capital Region, we conducted two concurrent anonymous online surveys between October 2020 and February 2021. Combined, 1049 people responded to these surveys.

We report on respondents' food security experiences since the COVID-19 pandemic started in New York State (March 7, 2020) compared to the prior year. We further explore the differential impacts of the pandemic on food security experiences by race and ethnicity, household income, job disruptions, and households with and without children.

### **Key Findings**

- 1. More than 70% of Black and Hispanic households experienced food insecurity since the outbreak began.
- 2. Household food insecurity among respondents experiencing job disruptions was double that of households without job disruptions.
- 3. Households with children were more vulnerable to food insecurity before and since the outbreak compared to households without children.
- 4. While increases in food security were observed across income groups, over 70% of respondents with household income below \$25,000 experienced food insecurity since COVID-19.

This study was approved by the University at Albany Institutional Review Board (IRB: 20X196 and 20X296). Information on the sampling and demographics of respondents is provided at the end of this data brief.

### Overall decrease in food security

Respondents were classified as experiencing food security, low food security, or very low food security, based on their answers to six questions of the USDA Six-Item Food Security Survey (www.ers.usda.gov).

Overall, household food security decreased from 71.9% pre-pandemic to 59.9% since the pandemic began. Though the portion of households experiencing *low food security* remained practically unchanged, the portion with *very low food security* more than doubled (Figure 1).

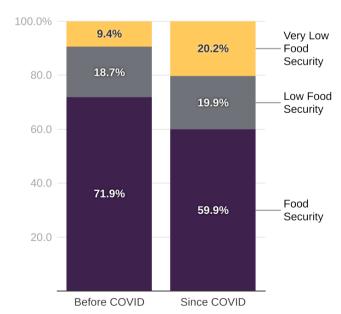


Figure 1. Households experiencing *food security, very low food security,* and *low food security* since the COVID-19 outbreak. (Classification based on: USDA Six-Item Food Security Survey)

## Affirmative responses to questions in USDA Food Security Measure

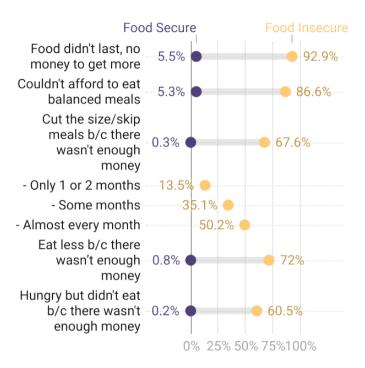


Figure 2. Responses to the adapted USDA Six-Item Food Security Survey since the start of the COVID-19 outbreak

# Households with children experienced greater increases in food insecurity

Food insecurity increased in households with and without children. However, households with children were not only more likely to experience food insecurity before the outbreak, but also reported to be more affected when the pandemic started. (Figure 3)

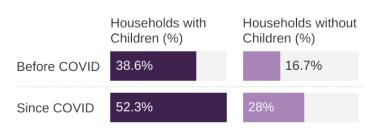


Figure 3. Respondents in households with and without children (<18-years of age) experiencing food insecurity before and since the COVID-19 outbreak started

## Black and Hispanic households reported lowest food security rates

While household food insecurity increased across racial/ethnic categories, the multiracial group had the highest percentage of respondents reporting new food insecurity. Meanwhile, 63.5% of Non-Hispanic Black households experienced persistent food insecurity before and since the pandemic started (Figure 4).

In recent research, similar trends have been explained by higher unemployment spikes due to higher job losses and lower opportunities for remote employment among Hispanic, Non-Hispanic Black groups and minority populations.



Figure 4. Percentage of respondents' households who were experiencing *Food Security*, *New Food Insecurity* or *Persistent Food Insecurity* across race/ethnicity groups

# All income groups struggled to get food, but those with lower-middle income were most affected

More than 70% of those living in households with a yearly income of less than \$25,000 were experiencing food insecurity when the pandemic started. The increase in food insecurity was most pronounced among respondents in households earning \$10,000-24,999, with an increase of nearly 30% compared to pre-pandemic times.

These trends may be connected to factors such as job precarity and income eligibility for assistance programs, suggesting the need for further exploration (Figure 5).

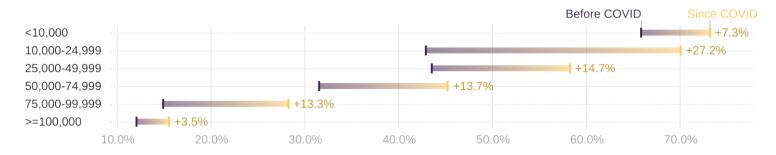


Figure 5. Change in food insecurity by income category before and since the start of the COVID-19 outbreak

## Those with job disruptions experienced lower food security

Increases in unemployment rates have been associated with decreased food security and the need for food assistance in other studies.

In our survey, household food security among respondents with job disruptions (such as lost of income or job, furloughed, reduced hours or income) was half of those not experiencing any disruption (Figure 6).

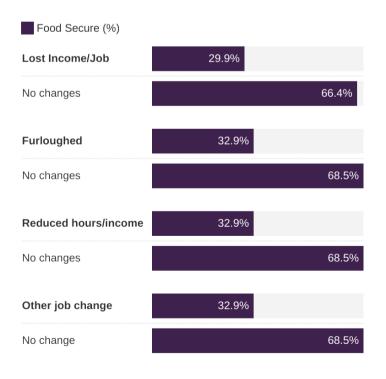


Figure 6. Percentage of respondents who were food secure since the start of the COVID-19 outbreak by type of job disruption

## Challenges to food access programs increased among their users

Food pantry use among participants increased from 17.2% before the COVID-19 outbreak to 22.31% since the outbreak began. Among users, the portion experiencing challenges to food pantry utilization more than doubled (Figure 7).

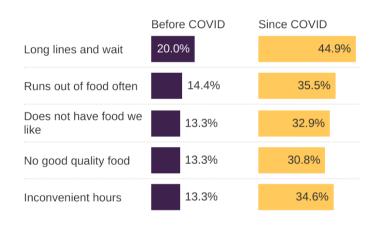


Figure 7. Challenges to food pantry utilization among food pantry users before and since the COVID-19 outbreak started

### Methods and Survey Demographics

We employed a population-based sampling strategy with oversampling for those with less than median income via a Qualtrics panel (October 2020 to January 2021) in Survey 1.

To better reach out to rural and BIPOC (Black, Indigenous, and People of Color) populations, we distributed Survey 2 via community partners and targeted Facebook ads. Survey 2 was open for five weeks (January to February 2021).

3 August 2021

We used sampling weights based on income, after which the household income distribution of respondents became identical to that of all residents in the 11 counties in the Capital Region. This way, we can assume that our sample does not have one particular income group over- or underrepresented, and our results can be generalizable for the region. The demographic characteristics of our sample are presented in Table 1.

Participation by county was as follows: Albany (34.3%), Saratoga (13.9%), Rensselaer (12.5%), Schenectady (12.5%), Greene (6.2%), and the remaining (20.6%) in Washington, Columbia, Warren, Fulton, Montgomery, and Schoharie. Respondents lived in urban (80.6%), non-urban (14.8%), and unknown (4.6%) zip codes.

Table 1. Demographics of survey respondents in the New York's Capital Region

Survey 1	Survey 2	Total
(595, 56.7%)	(454, 43.3%)	(1049, 100%)
N (%)	N (%)	N (%)
226 (38.0)	179 (39.4)	405 (38.6)
190 (31.9)	180 (39.6)	370 (35.3)
179 (30.1)	95 (20.9)	274 (26.1)
175 (29.4)	164 (36.1)	339 (32.3)
410 (68.9)	285 (62.8)	695 (66.3)
10 (1.7)	5 (1.1)	15 (1.4)
57 (9.6)	20 (4.4)	77 (7.3)
90 (15.1)	38 (8.4)	128 (12.2)
147 (24.7)	130 (28.6)	277 (26.4)
101 (17.0)	139 (30.6)	240 (22.9)
69 (11.6)	83 (18.3)	152 (14.5)
131 (22.0)	44 (9.7)	175 (16.7)
46 (7.3)	46 (11.0)	92 (8.8)
458 (72.6)	300 (71.4)	758 (72.1)
49 (7.8)	57 (13.6)	106 (10.1)
48 (7.6)	8 (1.9)	56 (5.3)
4 (0.6)	2 (0.5)	6 (0.6)
26 (4.1)	7 (1.7)	33 (3.1)
	(595, 56.7%) N (%)  226 (38.0) 190 (31.9) 179 (30.1)  175 (29.4) 410 (68.9) 10 (1.7)  57 (9.6) 90 (15.1) 147 (24.7) 101 (17.0) 69 (11.6) 131 (22.0)  46 (7.3) 458 (72.6) 49 (7.8) 48 (7.6) 4 (0.6)	(595, 56.7%) (454, 43.3%) N (%)  226 (38.0) 179 (39.4) 190 (31.9) 180 (39.6) 179 (30.1) 95 (20.9)  175 (29.4) 164 (36.1) 410 (68.9) 285 (62.8) 10 (1.7) 5 (1.1)  57 (9.6) 20 (4.4) 90 (15.1) 38 (8.4) 147 (24.7) 130 (28.6) 101 (17.0) 139 (30.6) 69 (11.6) 83 (18.3) 131 (22.0) 44 (9.7)  46 (7.3) 46 (11.0) 458 (72.6) 300 (71.4) 49 (7.8) 57 (13.6) 48 (7.6) 8 (1.9) 4 (0.6) 2 (0.5)

### **About NFACT**

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

### Acknowledgements

Funding for Survey 1 was provided by the Foundation for Food and Agriculture Research Tipping Points Grant. Funding for Survey 2 was provided by the State University of New York Research Foundation (Award no. 88826).

Surveys were carried out as part of the <u>Capital Region FRESH project</u>. Co-author Hnin Wai Lwin Myo generated weighted results. We thank Hailee Edwards (research assistant), Susan Lintner, Mary Mazur, and our project partners: Capital Roots, The Food Pantries For The Capital District, the Regional Food Bank of Northeastern New York, and RADIX Ecological Sustainability Center.

### **Suggested Citation**

Feingold BJ, Torres Arroyo MM, Hosler AS, Craft T, Myo HWL, Bozlak CT, Romeiko XX, Pernicka N, Crasto-Donnelly P, Klein A, Pettigrew S, Atwood B & Neff RA. 2021. Data Brief: Impacts of COVID-19 on Food Security in New York's Capital Region. https://scholarsarchive.library.albany.edu/

### References

Clay, L. A., & Rogus, S. (2021). Primary and Secondary Health Impacts of COVID-19 among Minority Individuals in New York State. International Journal of Environmental Research and Public Health, 18(2), 683. doi.org/10.3390/ijerph18020683

Feeding America. (2020). The Impact of the Coronavirus on Food Insecurity in 2020. Feeding America. <a href="www.feedingamerica.org">www.feedingamerica.org</a>

Montenovo, L., Jiang, X., Rojas, F. L., Schmutte, I., Simon, K., Weinberg, B., & Wing, C. (2020). Determinants of Disparities in Covid-19 Job Losses (Working Paper No. 27132; p. 64). National Bureau of Economic Research. doi.org/10.3386/w27132

Niles, M. T., Belarmino, E. H., & Bertmann, F. (2020). COVID-19 Impacts on Food Security and Systems: A Third Survey of Vermonters (No. 27; p. 5). National Food Access and COVID ResearchTeam. <a href="mailto:scholarworks.uvm.edu">scholarworks.uvm.edu</a>

Nord, M., Coleman-Jensen, A., & Gregory, C. (2014). Prevalence of U.S. Food Insecurity Is Related to Changes in Unemployment, Inflation, and the Price of Food (No. 167; p. 36). U.S. Department of Agriculture, Economic Research Service. <a href="www.ers.usda.gov">www.ers.usda.gov</a>

Tiehen, L. (2020). The Food Assistance Landscape: Fiscal Year 2019 Annual Report (Annual Report No. 218; p. 26). U.S. Department of Agriculture, Economic Research Service.

USDA Economic Research Service (2012). U.S. Household Food Security Survey Module: Six-Item Short Form. <u>www.ers.usda.gov</u>

Whitmore Schanzenbach, D. (2020). Not Enough to Eat: COVID-19 Deepens America's Hunger Crisis. Food Research & Action Center. frac.org