

Understanding and eliminating minority health disparities in a 21st-century pandemic: A White Paper Collection

Differential Impacts of COVID-19 in New York State: Understanding and eliminating minority health disparities in a 21st-century pandemic

2021

Food Insecurity in NY State. Solutions to Address the Multifaceted Problem

Janine Jurkowski *University at Albany, State University of New York*, jjurkowski@albany.edu

Tomoko Udo *University at Albany, State University of New York*, tschaller@albany.edu

Angela Hackstadt *University at Albany, State University of New York*, ahackstadt@albany.edu

Please contact the following author for an updated version of this work prior to citing it:

Janine Jurkowski

University at Albany, State University of New York

jjurkowski@albany.edu

 Part of the [Public Health Commons](#)

Recommended Citation

Jurkowski, Janine; Udo, Tomoko; and Hackstadt, Angela. 2021. "Food Insecurity in NY State. Solutions to Address the Multifaceted Problem" *Understanding and eliminating minority health disparities in a 21st-century pandemic: A White Paper Collection*. University at Albany, SUNY: Scholars Archive. https://scholarsarchive.library.albany.edu/covid_mhd_nys_white_papers/10

In April 2020, the University at Albany was asked by Gov. Andrew Cuomo to research why communities of color in New York have been disproportionately impacted by COVID-19. The goal of this research, carried out in partnership with the New York State Department of Health and Northwell Health, is to add to the existing well of knowledge about health disparities in New York State by identifying the environmental, socioeconomic and occupational factors that explain why COVID-19 has disproportionately harmed Black and Hispanic New Yorkers and to propose practical intervention strategies to eliminate these disparities and save lives.

For additional information about this project please see: www.albany.edu/mhd or contact Theresa Pardo, Special Assistant to the President and Project Director for this initiative at tpardo@ctg.albany.edu.

Food Insecurity in NY State. Solutions to Address the Multifaceted Problem

Janine M, Jurkowski, PhD, MPH; Tomoko Udo, MS, PhD, Angela Hackstadt

Defining Food Insecurity beyond Individual and Household

Food insecurity is multifaceted in that it involves the *availability* of enough safe and nutritious food, having *access* to that food and being able to effectively *utilize* that food for household consumption. Availability has to do with the supply chain, which is impacted directly by the social and physical environment. Access is related to social and economic determinants that influence individuals and households' well-being and socioeconomic opportunities. Similarly, utilization is influenced by those same individual and household factors that are impacted by skills and socioeconomic opportunities (C. B. Barrett, 2010b). Hunger, on the other hand, is defined by not having enough food to meet daily nutritional and caloric requirements rather than whether there is enough of any type of food available (C. B. Barrett, 2010a). This definition of food insecurity and hunger departs from traditional definitions which focus on social and economic conditions within household (e.g., *USDA ERS - Household Food Security in the United States in 2018*, n.d.; *Hunger & Poverty in New York | Map the Meal Gap*, n.d.). Food insecurity in fact is a growing social problem with multifaceted root cause that are often beyond control of individuals. Thus, reduction in food insecurity requires interventions that also target food availability and access at neighborhood or regional levels, and what to do with the food to ensure consumption of healthy food. Households who experience food insecurity may be insecure at times due to the need to make trade-offs between other basic needs like paying for rent, electricity or medical bills with buying nutritionally adequate food (*Hunger & Poverty in New York | Map the Meal Gap*, n.d.), but availability of food at the neighborhood or regional level demonstrates historically racist policies, unfair distribution of food, and food system vulnerabilities.

Food Insecurity and COVID-19 in New York State

Very low food security is correlated with areas of concentrated poverty. In 2018, 666,000 children in New York State (NYS) who were living in high poverty areas. That same year, it was estimated that 1 in 6 children and 1 in 9 people or approximately 2.1 million people experience hunger in NY (*Hunger & Poverty in New York | Map the Meal Gap*, n.d.). Among adults ages 60 and older, NYS ranks 21st with 12.1% experiencing food insecurity. (*Explore Food Insecurity - Ages 60+ in New York | 2020 Senior Health | AHR*, n.d.). Pre-COVID, rates of food insecurity in the U.S. were some of the lowest in 20 years. There have been reports to highlight challenges in food availability and access posed by the pandemic. Although the data is not available for NYS, New York City reported food availability problems early in the COVID-19 pandemic. For example, there is an overreliance on one port that experienced major delays due to COVID-19, causing a food shortage in NYC, which had the greatest impact on black and brown communities. At that same time, food access was also a problem for those same communities because of wealthier families stockpiled food (D'innocenzio, 2020). During New York Pause, food access became challenging due to significant increases in demand for emergency food across NYS. Relative to 2019, demand for emergency food increased by 58% in the Capital

12/31/2020

Region and 100% in the Southern Tier (*Southern Tier Food Bank Delivers Double Food Compared To A Year Ago Because of COVID-19 Pandemic | WSKG, n.d.*)(*Regional Food Bank provides millions of meals throughout COVID-19 crisis | WRGB, n.d.*; *Southern Tier Food Bank Delivers Double Food Compared To A Year Ago Because of COVID-19 Pandemic | WSKG, n.d.*).

Comprehensive assessment of the impact of the COVID-19 pandemic on prevalence of food insecurity in NYS is difficult due to lack of consistent and continuous surveillance data. However, FeedingNYS.org reported that there was a 50% increase in emergency food distribution through the food banks during the summer of 2020, demonstrating the highest demand for emergency food since the Great Depression(*JOIN US ON OUR MISSION TO END HUNGER IN NEW YORK, 2020*). Some projective models suggest that the NY 3rd Congressional District has experienced a 96% increase in food insecurity in 2020 and the 15th district is projected to have the highest food insecurity rate among children, 46%, in the entire country (Hake et al., 2020). That same study reports that Nassau County, ranks 5th overall in the US for highest percentage of increase in food insecurity and has had the greatest increase in NYS. The county has an 83% increase in food insecurity (5.3% to 9.8%) from 2018 through 2020.

Racial/Ethnic Disparities During COVID-19

Socioeconomic disadvantages such as poverty, unemployment, and disabilities are strongly associated with food insecurity, which are historically much more prevalent in racial/ethnic minorities and has certainly been exacerbated by COVID-19. Historically, food insecurity has disproportionately affected racial minorities. The data from 2018 Household Food Insecurity report by the USDA found higher prevalence of food insecurity among Hispanics and non-Hispanic Blacks (NHB) households (16.2% and 21.2%) than non-Hispanic White (NHW; 8.1%) households despite that overall prevalence of food insecurity declined (Galea & Abdalla, 2020). A few studies have used the 2020 Household Pulse Survey in April 23-July 21, 2020 ($N = 74,413$ households)(Couch et al., 2020). to evaluate the impact of COVID-19 pandemic on racial/ethnic disparities in food insecurity. According to one study, increases in the prevalence of U.S. households with food insecurity were similar across all racial groups between March 13 and April 23-May 5, and the severity of food insecurity did not differ by racial/ethnic groups (Morales et al., 2020). However, the study also found that relative to NHW, NHB households were more likely to report food insecurity because they could not afford to buy more food whereas NHW were more likely to report that the stores did not have what they wanted relative to other race/ethnicity. Another study reported that, as the pandemic continued, the prevalence of food insecurity significantly decreased for NHW by June 23-28, but it did not significantly change for Hispanics and NHB (Schanzenbach & Pitts, 2020). Between April 23 and June 28, 2020, 41% of NHB, 36.9% of Hispanic, and 23.2% of NHW households reported food insecurity (Bartfeld & Dunifon, 2006). Furthermore, demonstrating historical patterns after the 2008 economic crisis, the same report also predicted slower reductions in prevalence of food insecurity among NHB, compared with Hispanics or NHW. Collectively, these studies raise significant concerns over the long-term implication of the prolonged pandemic for widening racial/ethnic disparities.

It is important to note that racial/ethnic disparities in food insecurity seem to persist even after

accounting for socioeconomic differences (Bartfeld & Dunifon, 2006; Gundersen & Ziliak, 2015). Structural inequalities due to racial discrimination and racism may also contribute to food insecurity (Burke et al., 2018; Odoms-Young & Bruce, 2018; Phojanakong et al., 2019). Thus, while public health and policy interventions aiming to directly improve access to food, especially healthy food, are crucial, they may not be enough to fundamentally address racial/ethnic disparities in food insecurity.

Measuring Food Insecurity and Hunger

Quantifying who is food insecure can be challenging, and measures should be chosen based on the purpose and available resources. For example, measures that allow more in-depth description of the population (e.g., levels of food insecurity, utilization of government interventions targeting food insecurity) may be most useful not only to assess the prevalence of food insecurity but also the impact of these programs over time. However, these measures tend to be more complex and lengthy, and thus require trained individuals to administer the survey rather than self-report. Another important aspect to consider is sensitivity (% of true positive) and specificity (% of true negative) of a measure. Sensitivity is particularly important when ranking the population by levels of risk and severity to identify priority populations for interventions. On the other hand, both sensitivity and specificity need to be considered to accurately estimate the prevalence of food insecurity in a population and assess the burden of a condition. There are a few examples of national or community-level surveillance programs (e.g., the USDA, National Health and Nutritional Examination Surveys [NHANES] by the Centers for Disease Control and Prevention [CDC], and Community Childhood Hunger Identification Project's [CCHIP]). We summarized similarities, differences, and limitations with each measure in Table 1. One crucial limitation of all measures of food insecurity is their focus on individual and household levels, and thus do not ask questions about food availability in their community or food utilization within the household.

Table 1: Summary of Available Measures

	USDA ¹	NHANES ²	CCHIP ³
Types of questions			
Food access (individual/household)	Yes	Yes	Yes
Separate questions for children	Yes	Yes	Yes
WIC/SNAP/Food stamp utilization	No	Yes	No
Food availability (community)	No	No	No
Food utilization	No	No	No
Hunger	No	No	Yes
Provide levels of food insecurity	Yes	Yes	No
Sensitivity	Poor	Poor	Excellent
Specificity	Excellent	Excellent	Good
Self-completion	Difficult with skip patterns	Very difficult with skip patterns and detailed questions about service utilization	Yes
Number of questions	10 ² (18 for	10 ² (18 for household	12

	household with children)	with children; up to 27 for those utilize government programs)	
--	--------------------------	--	--

Notes. USDA (Coleman-Jensen et al., 2020)¹ NHANES (Keenan et al., 2001) CHIP is based on the Radimer/Cornell food insecurity measure (Kendall et al., 1995); ³ Basic 18 questions are the same between USDA and NHANES surveys.

Strategies to Address Food Insecurity

Government Programs

Although research findings are mixed, in general, SNAP and WIC have demonstrated improvements in reducing food insecurity. Longitudinal research shows that SNAP reduces food insecurity by 19% for households who experience very low food security (Gundersen Mabli & Ohls, 2015). SNAP-Ed, a curriculum that covers USDA behavioral outcomes on caloric balance for healthy weight, MyPlate, food label education, and importance of whole grains and fruit and vegetables, was found to be independently effective at improvement in food insecurity in one year (Eicher-Miller et al., 2020). This program and culturally tailored programs have the potential to improve utilization of healthy food; however, there is little to no research to understand utilization and waste among food insecure individuals. What we do know is that clients using food pantries look for foods that are culturally appropriate (Luke et al., 2015).

During COVID-19, Congress authorized Emergency Allotments (EA) of SNAP benefits under the Families First Coronavirus Response Act of 2020, which was recently approved through the month of December for New Yorkers. This allowed SNAP recipients to receive the maximum amount of the benefit per household size. These EA are provided during emergency or disaster declaration. Given that the pandemic is at the height of a second wave, extending approval into 2021 will help address food insecurity among low-income households; a disproportionate number of which are minorities.

Another group of individuals who experience food insecurity are college students. Minority students may disproportionately experience food insecurity in college in part because they are more likely to come from lower-income families (Broton et al., n.d.; Ilieva et al., 2019). The state has responded by requiring all SUNY schools to provide food pantries (Maroto et al., 2015; Payne-Sturges et al., 2018). Further, starting October 1, 2020, NY State Office of Temporary and Disability Assistance expanded the definition of eligible students for SNAP so that low-income students qualify to receive benefits if they are enrolled at least half-time as a SUNY or CUNY student or an Educational Opportunity Center student between the ages of 18-49 with exemptions for certain less than half-time students. It was estimated that nearly 75,000 students currently qualify. College students need to be educated about their eligibility so that they can benefit from this resource.

Community-Based Programs often Funded by Foundations, Government Grants or Donations

Emergency food is often provided through regional food banks, which operate as storage and distribution sites to food pantries. Food pantries provide 3-days worth of supplemental food for low-income households. The intent of emergency food is to supplement food for households

12/31/2020

who are temporarily experiencing food shortages such as for those who have a low or fixed income or those who are not working due to illness or loss of job or income.

Other common programs to address food insecurity among minorities and low-income households include summer meal, school back pack programs, and universal breakfast. and lunch reach are helpful programs to feed school age children. These programs are not adequately or universally available across school districts cities, towns, and NYS to meet the needs of the 660,000 NYS children who are food insecure. Even with these programs, the pandemic has created access barriers because many urban and low-income schools had to rely on virtual learning, making it difficult to get meals to all students, especially the most vulnerable with parents who are unable to get to pick up sites and school districts may lack the staffing and funding to deliver meals to all who need it. Programs, like the school backpack program, only last as long as there is grant funding. Therefore, for these programs to be effective, they need to be state or federally funded and available to all vulnerable children.

Food Recovery

Food recovery is one major solution to America's food waste and food insecurity problems. It refers to collecting wholesome food to distribute to those in need (Haley, 2013). As mentioned earlier, existing shortcomings in the supply chain and social safety net have been amplified by COVID-19. This increase is attributed to bottlenecks in the food supply chain as restaurants closed and consumers changed buying habits (Nierenberg, 2020; ReFED, 2020-d). Food producers have been forced to dispose of significant amounts of otherwise edible food while food banks face shortages (Corkery & Yaffe-Bellany, 2020; Yaffe-Bellany & Corkery, 2020). Food recovery may thus be beneficial to address both food waste and supply shortage issues.

The federal government has made strides to address such issues through legislation, regulations, guidelines, and federal programs that promote food donation and gleaning. Gleaning refers to collecting fresh foods from non-consumer sources, such as farms, retailers, or restaurants to provide food to those in need (USDA, n.d.). Congress passed the Bill Emerson Good Samaritan Food Donation Act (Emerson Act) to encourage the donation of excess wholesome food to organizations serving the food insecure by limiting donor liability (Haley, 2013; Kalashian, 2013, p. 108; Munger, 2018; Smith, 2016, p. 657). Federal tax incentives are in place for certain businesses that donate qualifying food to charitable organizations. NYS liability protection law extends the same protections as the Emerson Act (ReFED, 2020-a). Specifically, the Nourish New York Initiative (Nourish NY), launched by Governor Cuomo in May 2020, provide an opportunity to expand or enhance comparatively passive interventions like tax incentives or liability protection, and seems to be effective in increasing food supply. For example, City Harvest, a New York City food recovery organization, reported a 79% increase in food recovered and delivered to food banks during the pandemic compared to the same time period the previous year. Some of this food was rescued and distributed thanks to Nourish NY and the federal Coronavirus Food Assistance Program (City Harvest, 2020).

Food recovery, however, has also faced some challenges for wider adaptation. Qualifying

businesses do not take advantage of these tax incentives, possibly due to lack of awareness or difficulty in understanding requirements (Evans & Nagele, 2017, p. 185). Incentivizing food donation through liability protection and tax breaks is limited. NYS does not offer state tax incentives for food donation (ReFED, 2020-a). Liability protections only apply to businesses that donate food, not to nonprofits that distribute food. Neither liability protections nor tax incentives apply when businesses donate food directly to individuals or to organizations that charge for food (ReFED, 2020-b, 2020-c). Further, few research studies have examined the effectiveness of these programs at reducing minority disparities in food insecurity.

Recommendations

A review of peer reviewed and gray literature identified key areas for improvement. First there needs to be systematic surveillance of food insecurity and hunger in NYS. On a national level, the Current Population Survey (CPS) measures food security and is able to identify prevalence by state. While the 2019 CPS surveyed over 4000 people in NY State, the sample size is too small to estimate prevalence and associated characteristics by county, city, or town, or by subgroup analysis, for example by race/ethnicity to inform programs and policies. Regional food banks and food pantries collect data but it is challenging to aggregate due to consistency in methodologies, and not comprehensive for understanding sub-group differences. Also, measuring hunger is rare. Finally, most data identify household level of food security but do not measure access and availability of food to monitor both the resilience and racial and economic inequities in the food system.

Recommendation #1: NYS conducts population level surveillance of the availability and access of food as well as household level hunger and level of food insecurity.

Recommendation #2: Implement surveillance strategies designed to assess demographic characteristics, especially race/ethnicity and socioeconomic status, and city/town and urban/rural differences so that government agencies can target and tailor programs.

At the beginning of the COVID-19 there was disruption in the food distribution system due to limitation in the movement of goods and food through the New York port (Mayer, 2020). This caused a decrease in food access that had the greatest impact on minority communities.

Recommendation #3: Research on New York's food system resiliency ought to be conducted to inform areas to strengthen.

Job loss and loss of work hours for millions that will likely extend into 2021 has increased demand for emergency food. Low income and working poor are the most vulnerable to food insecurity and a disproportionate number of working poor and low-income households are minorities who were already experiencing or near the threshold for experiencing food insecurity. These disparities were exacerbated during COVID-19. People who are within the political power structures or economically viable and stable rarely experience food insecurity and government responses are often slow and inconsistent (C. Barrett, 2010). After a review of the literature, the most effective policies to address food insecurity and hunger are to develop policies that reduce poverty through creating economic opportunities in locations accessible to areas of concentrated poverty. One strategy is for governments to increase the minimum wage based on a region-based calculation for defining livable (Buss & Romeo, 2006; Neumark &

12/31/2020

Adams, n.d.; Swarts & Vasi, 2011). Although racial/ethnic disparities cannot be completely solved by poverty reduction strategies, decades of research shows that these comprehensive strategies can have significant impact on economic disparities, social determinants of health and, and food insecurity. The expansion of a safety net with strategies or programs to increase food access in areas of concentrated poverty will help improve race/ethnic disparities. Many urban and rural areas of concentrated poverty experience poor food access, especially fresh and healthy food access, which can decrease hunger and decrease chronic disease risk.

Recommendation #4: An effective first step is to expand SNAP and WIC eligibility to more low-income households to fill some of the gap between eligibility and food security.

Recommendation #5: It is important to expand healthy food access that includes culturally appropriate food in areas with concentrated poverty and a history of segregation and low food access to facilitate the reduction in food insecurity among minority populations.

Recommendation #6: Develop and implement programs to promote utilization of affordable, healthy and culturally appropriate foods to improve utilization of healthy food options obtained at food pantries or through SNAP and WIC. Participatory research that engaged community members can be particularly useful when developing these types of programs.

Acknowledgements The authors would like to thank Elaine Lasda for her contribution to the preliminary literature review and her feedback during the process.

Bibliography

- Barrett, C. (2010). Measuring food insecurity. *Science*, 327(5967), 825–828.
https://science.sciencemag.org/content/327/5967/825.abstract?casa_token=T0rgFKYBRI8AAAAA:p4j1tZd2Ggfuk19C5HGTR8DXCzqTHWHX9VqEQK2XREyV_ISgV7nrwM4DVJQX77hXjRk-s6Nb0-ncCQ
- Barrett, C. B. (2010a). *Measuring Food Security*. <https://doi.org/10.1126/science.1182768>
- Barrett, C. B. (2010b). Measuring food insecurity. In *Science* (Vol. 327, Issue 5967, pp. 825–828). American Association for the Advancement of Science.
<https://doi.org/10.1126/science.1182768>
- Bartfeld, J., & Dunifon, R. (2006). State-level predictors of food insecurity among households with children. *Journal of Policy Analysis and Management*, 25(4), 921–942.
<https://doi.org/10.1002/pam.20214>
- Broton, K. M., Weaver, K. E., & Mai, M. (n.d.). Hunger in Higher Education: Experiences and Correlates of Food Insecurity among Wisconsin Undergraduates from Low-Income Families. *Mdpi.Com*. <https://doi.org/10.3390/socsci7100179>
- Burke, M. P., Jones, S. J., Frongillo, E. A., Fram, M. S., Blake, C. E., & Freedman, D. A. (2018). Severity of household food insecurity and lifetime racial discrimination among African-American households in South Carolina. *Ethnicity and Health*, 23(3), 276–292.
<https://doi.org/10.1080/13557858.2016.1263286>
- Buss, J. A., & Romeo, A. (2006). The changing employment situation in some cities with living wage ordinances. In *Review of Social Economy* (Vol. 64, Issue 3, pp. 349–367).
<https://doi.org/10.1080/00346760600892766>
- Coleman-Jensen, A., Rabbitt, M., & Gregory, C. (2020). *Measurement*. USDA Economic Research Service. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/measurement.aspx>
- Couch, K. A., Fairlie, R. W., & Xu, H. (2020). Early evidence of the impacts of COVID-19 on minority unemployment. *Journal of Public Economics*.
<https://doi.org/10.1016/j.jpubeco.2020.104287>
- D’innocenzio, A. (2020, March). With Spreading Virus Comes Fears- and Lots of Stockpiling. *New York NBC News*. <https://www.nbcnewyork.com/news/coronavirus/with-spreading-virus-comes-fears-and-lots-of-stockpiling/2315448/>
- Explore Food Insecurity - Ages 60+ in New York | 2020 Senior Health | AHR*. (n.d.). Retrieved November 2, 2020, from
https://www.americashealthrankings.org/explore/senior/measure/food_insecurity_sr/state/NY
- Galea, S., & Abdalla, S. M. (2020). COVID-19 Pandemic, Unemployment, and Civil Unrest. *JAMA*.
<https://doi.org/10.1001/jama.2020.11132>
- Gundersen, C., & Ziliak, J. P. (2015). Food insecurity and health outcomes. *Health Affairs*, 34(11), 1830–1839. <https://doi.org/10.1377/hlthaff.2015.0645>
- Hake, M., Dewey, A., Engelhard, E., Strayer, M., Harper, T., Summerfelt, T., Malone-Smolla, C., & Maebry, T. (2020). *The Impact of the Coronavirus on Food Insecurity in 2020*. https://www.feedingamerica.org/sites/default/files/2020-10/Brief_Local_Impact_10.2020_0.pdf

- Hunger & Poverty in New York | Map the Meal Gap.* (n.d.). Retrieved June 12, 2020, from <https://map.feedingamerica.org/county/2018/overall/new-york>
- Ilieva, R. T., Ahmed, T., & Yan, A. (2019). Hungry minds: Investigating the food insecurity of minority community college students. *Journal of Public Affairs, 19*(3). <https://doi.org/10.1002/pa.1891>
- JOIN US ON OUR MISSION TO END HUNGER IN NEW YORK. (2020). Feedingnys.Org. <https://feedingnys.org/>
- Keenan, D. P., Olson, C., Hersey, J. C., & Farmer, S. M. (2001). Measures of food insecurity/security. *Journal of Nutrition Education and Behavior, 33*(SUPPL.), S49–S58. [https://doi.org/10.1016/s1499-4046\(06\)60069-9](https://doi.org/10.1016/s1499-4046(06)60069-9)
- Kendall, A., Olson, C. M., & Frongillo, E. A. (1995). Validation of the Radimer/Cornell measures of hunger and food insecurity. *Journal of Nutrition, 125*(11), 2793–2801. <https://doi.org/10.1093/jn/125.11.2793>
- Luke, J., Kruger, J. S., Boardley, D., & Bungee, J. (2015). Assessing Culturally Appropriate Food Choices: A Need for Hispanic Specific Food Choices as Illustrated by GIS Mapping. *Journal of Nutrition Education and Behavior, 47*(4), S52–S53. <https://doi.org/10.1016/j.jneb.2015.04.139>
- Maroto, M. E., Snelling, A., & Linck, H. (2015). Food Insecurity Among Community College Students: Prevalence and Association With Grade Point Average. *Community College Journal of Research and Practice, 39*(6), 515–526. <https://doi.org/10.1080/10668926.2013.850758>
- Mayer, M. (2020, May 20). How Ports Remain Important Ingredients Amid COVID-19 Pandemic. *Food Logistics*. <https://www.foodlogistics.com/ocean-ports-carriers/article/21128958/how-ports-remain-important-ingredient-amid-covid19-pandemic>
- Morales, D. X., Morales, S. A., & Beltran, T. F. (2020). Racial/Ethnic Disparities in Household Food Insecurity During the COVID-19 Pandemic: a Nationally Representative Study. *Journal of Racial and Ethnic Health Disparities, 1*–15. <https://doi.org/10.1007/s40615-020-00892-7>
- Neumark, D., & Adams, S. (n.d.). Do Living Wage Ordinances Reduce Urban Poverty? In *jhr.uwpress.org*. Retrieved December 30, 2020, from www.afscme.org/livingwage/
- Odoms-Young, A., & Bruce, M. A. (2018). Examining the Impact of Structural Racism on Food Insecurity. *Family & Community Health, 41*(Suppl 2). <https://doi.org/10.1097/FCH.000000000000183>
- Payne-Sturges, D. C., Tjaden, A., Caldeira, K. M., Vincent, K. B., & Arria, A. M. (2018). Student Hunger on Campus: Food Insecurity Among College Students and Implications for Academic Institutions. *American Journal of Health Promotion, 32*(2), 349–354. <https://doi.org/10.1177/0890117117719620>
- Phojanakong, P., Brown Weida, E., Grimaldi, G., Lê-Scherban, F., & Chilton, M. (2019). Experiences of Racial and Ethnic Discrimination Are Associated with Food Insecurity and Poor Health. *International Journal of Environmental Research and Public Health, 16*(22), 4369. <https://doi.org/10.3390/ijerph16224369>
- Regional Food Bank provides millions of meals throughout COVID-19 crisis | WRGB. (n.d.). Retrieved June 17, 2020, from <https://cbs6albany.com/news/coronavirus/regional-food-bank-provides-millions-of-meals-throughout-covid-19-crisis>

12/31/2020

- Schanzenbach, D., & Pitts, A. (2020). *Estimates of Food Insecurity During the COVID-19 Crisis: Results from the COVID Impact Survey, Week 1 (April 20-26, 2020)*.
<https://www.ipr.northwestern.edu/news/2020/food-insecurity-triples-for-families-during-covid.html%0APhoto>
- Southern Tier Food Bank Delivers Double Food Compared To A Year Ago Because of COVID-19 Pandemic* | WSKG. (n.d.). Retrieved June 17, 2020, from <https://wskg.org/news/southern-tier-food-bank-doubles-food-delivery-due-to-covid-19/>
- Swarts, H., & Vasi, I. B. (2011). Which U.S. cities adopt living wage ordinances? predictors of adoption of a new labor tactic, 1994-2006. *Urban Affairs Review*, 47(6), 743–774.
<https://doi.org/10.1177/1078087411412733>