

FOOD INSECURITY- How Does it Affect the U.S.?

Balestrieri: Food Insecurity—How does it Affect the U.S.?

Alyssa Balestrieri- Health Science, Concentration in Public Health

Introduction

- This literature review examined the ways food insecurity affects diverse populations. This study is significant because many factors such as gender, racial and ethnic groups, cultures and socioeconomic status play a role in the access one does or does not have to healthy food. It is essential to continue finding information of how to combat the inequalities that exist amongst these diverse populations that consequently cause obesity, poorer overall health and a lower quality of life due to food insecurity.

Methods

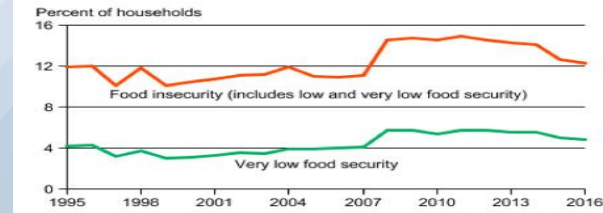
- The journal articles for this poster were found by using data bases such as google scholar and LibCal. Key words used to search were food insecurity, poverty, acculturation and food deserts. Articles had to have been published after 2016, and include populations of individuals from diverse age groups, racial and ethnic backgrounds and socioeconomic statuses in order to be used. Of the articles that were found, six will be discussed.
- Selected articles included studies on:
 - The connection between neighborhood poverty and food insecurity.
 - How limited access to healthy food corresponds to increased obesity among high poverty neighborhoods.
 - Acculturation and poverty's joint association with food insecurity.
 - Barrier of food prices in food deserts and the difference in food access depending on socioeconomic statuses.
 - Nutritional intake and dietary quality among U.S. adults living in poverty based on nutrition label use.
 - The detailed relationship between food insecurity and socioeconomic and acculturation variables.



Published by DigitalCommons@SHU, 2021

This image shows a low socioeconomic/ poverty-stricken society that is hungry and experiencing very low food security

Trends in prevalence rates of food insecurity and very low food security in U.S. households, 1995-2016



Note: Prevalence rates for 1996 and 1997 were adjusted for the estimated effects of differences in data collection screening protocols used in those years.

Source: USDA, Economic Research Service, using data from Current Population Survey Food Security Supplement.

This graph shows the direct and overall increasing relationship between food insecurity and U.S. households

Results

This literature review discovered considerable data regarding food insecurity in America.

- More than 22.1% of households living in neighborhoods with 40% or greater poverty had very low food security.
- 2.1% of children in high poverty neighborhoods were considered to have low or very low food security, compared to only .2% in low poverty neighborhoods (Morrissey et al. 2016).
- 84% of children in census tracts with 40% or greater poverty were Black or Hispanic, compared to only 20% in tracts that had less than 14% of poverty (Morrissey et al. 2016).
- Compared to Whites, the odds of being food insecure were about 4 times as high for Blacks, 2.5 times as high for Mexicans and 2.5 times as high for Puerto Ricans (Hunt et al. 2019).
- The prevalence of obesity among women in high poverty/ high Black composition neighborhoods with low access to food is 31.6% and 28.8% in high access, compared to high poverty/low Black composition neighborhoods where the prevalence was 29.4% in low food access and 28.8% in high food access (Gailey & Bruckner, 2019).
- Nutrition labels proved to be important in diet quality because among those who were considered acculturated, the odds of using nutrition labels were 56% lower for low income- compared to higher income individuals.
- For those falling below 130% of the poverty line, the odds of a poor diet were 38% less than for those not using nutrition labels.

Results (continued)

- People in a higher poverty to income ratio (PIR) had nutrient intakes that were higher than those in the lowest (PIR)(Bailey et al. 2017).
- Consumers who are constrained to shop within stores in their census tracts such as older adults with limited mobility or people with limited access to transportation face 9.2% higher prices compared to high income and high access tracts.
- Researchers found a significant racial disparity in exact price index (EPI) census tracts with high proportions of African Americans facing higher EPI coefficients as high as .195 (Fan et al. 2018).



This convenience corner store is in Bridgeport, CT that displays a variety of cheap and very unhealthy of food options for the low socioeconomic residents to buy and live from

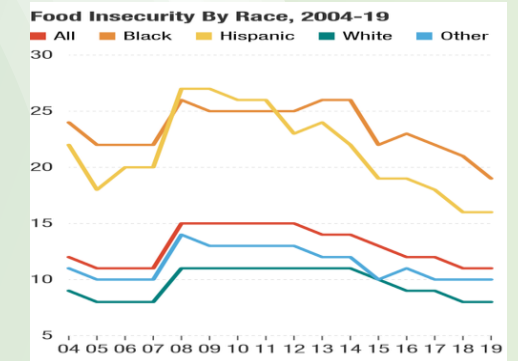
Conclusions

Based on the research found, it can be concluded that food insecurity affects the U.S. population in many ways.

- The likelihood of food insecurity increases as neighborhood poverty increases.
- Children that live in poor or low-income households are more likely to live in food-insecure households or with food insecure adults.
- It is proven that Hispanic and Black children are more likely than White or other race children to experience food insecurity at all levels.
- Furthermore, women with low food access residing in high poverty and high Black composition neighborhoods show an increased risk of obesity, compared to those in high poverty but low Black neighborhoods.

Conclusions (continued)

- Due to acculturation, tools such as nutrition labels could be particularly effective for nutritional education among the bicultural Latino community, which have been proven to be especially vulnerable to a poorer diet, especially with low income.
- Neighborhoods that are lower socioeconomic status tend to live farther from grocery stores, making the community a food desert.
- Individuals without reliable transportation to markets shop out of convenience and corner stores which have little healthy food options, increasing the risk of negative health outcomes.



Source: USDA, Economic Research Service, using Current Population Survey Food Security Supplement data – a graph explaining the significant difference in food insecurity depending on one's race

References

- Bailey, R.L., Thuppai, S.V., Akabas, S.R., Paxson, E.E., Saklani, S., & Tucker, K.L. (2017). Total Usual Intake of Shortfall Nutrients Varies with Poverty Among U.S. Adults. *Journal of Nutritional Education and Behavior* 49(8), 639-646. [10.1016/j.jneb.2016.11.008](https://doi.org/10.1016/j.jneb.2016.11.008)
- Fan, L., Baylis, K., Gundersen, C., & Ver Ploeg, M. (2018). Does a Nutritious Diet Cost More in Food Desert? *Agricultural Economics* 49(5), 587-579. <https://eds.b.ebscohost.com/eds/pdfviewer/pdfviewer?vid=2&sid=7fe42a4f-01ce-4e04-a71d-ed7c470c357%40sessionmgr102>
- Gailey, S. & Bruckner, T.A. (2019). Obesity Among Black Women in Food Deserts: An "omnibus" Test of Differential Risk. *SSM- Population health*, 7. <https://escholarship.org/uc/item/0279h58g>
- Hoblen, D.H., & Marshall, M.B. (2017). Position of the Academy of Nutrition and Dietetics: Food Insecurity in the United States. *Journal of the Academy of Nutrition and Dietetics*, 117(12), 19910-2002. [10.1016/j.jand.2017.09.027](https://doi.org/10.1016/j.jand.2017.09.027)
- Hunt, B.R., Benjamins, M.R., Khan, S., & Hirschtick, J.L. (2019). Predictors of Food Insecurity in Selected Chicago Community Areas. *Journal of Nutrition Education and Behavior*, 51(3), 287-299. [10.1016/j.jneb.2018.08.005](https://doi.org/10.1016/j.jneb.2018.08.005)
- Morrissey, T.W., Oellerich, D., Meade, E., Simms, J., & Stock, A. (2016). Neighborhood's Poverty and Children's Food Insecurity. *Children and Youth Services Review* 66, 85-93. [10.1016/j.childyouth.2016.05.006](https://doi.org/10.1016/j.childyouth.2016.05.006)
- Wilson, M.D., Ramierz, A.S., Arsenaull, J.E., & Miller, L.S. (2018). Nutrition Label Use and its Association with Dietary Quality Among Latinos: The Roles of Poverty and Acculturation. *Journal of Nutrition Education and Behavior*, 50(9), 876-887. [10.1016/j.jneb.2018.05.019](https://doi.org/10.1016/j.jneb.2018.05.019)