Hunger in the Commonwealth: Food Security in Pennsylvania

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Key Findings:

- 2018 PA food insecurity at a decade low of 10.9% compared to 14.6% in 2008

- Food Insecurity among PA seniors has increased every year since 2016

- Non-metro county residents at increased risk of food insecurity

Upcoming changes in eligibility requirements to the Supplemental Nutritional Assistance Program (SNAP), highlights the need to better understand hunger and food security within our own communities. In 2018, 11.1% of households in the United States were food insecure at some point during the year; a .7% decrease from the previous year (Coleman-Jensen et al. 2018). The same report uses data from 2016-2018 to estimate a similar food insecurity rate of 11.1% for Pennsylvanians during that period. Pennsylvania falls in the middle of all states ranked, with New Hampshire having the smallest proportion of food insecure households (7.8%) and New Mexico having the largest (15.8%).

In order to better understand trends in and differences across household food security, we use data from the Current Population Survey Food Security Supplement (CPS-FSS), Robert Wood Johnson County Health Rankings, and United Health Foundation State Health Rankings.

Measurements of Food Security

The food security measures used in the CPS-FSS were designed by the Food and Nutrition Service (FNS) unit of the United State Department of Agriculture (USDA). 18 conditions are used to determine food insecurity (i.e. fears about food running out before having money to purchase more, eating less or skipping meals), over the past 12 months. Households without children are considered to be low on food security if they report 3-5 conditions, and very low food secure if they report 6 or more conditions. Households with children are low food secure if 3-7 food insecure conditions are reported and very low food secure with 8 or more conditions.

Low food security suggests that households reduced the quality, variety, and desirability of their diets, but not the quantity of food. Very low food security suggests that eating patterns and/or quantity of food consumed of one or more household members were disrupted. This implies household members experience a shortage of food at points during the past year.

*Figure 1. Household Food Insecurity, US Sample and PA, 2008-2018*
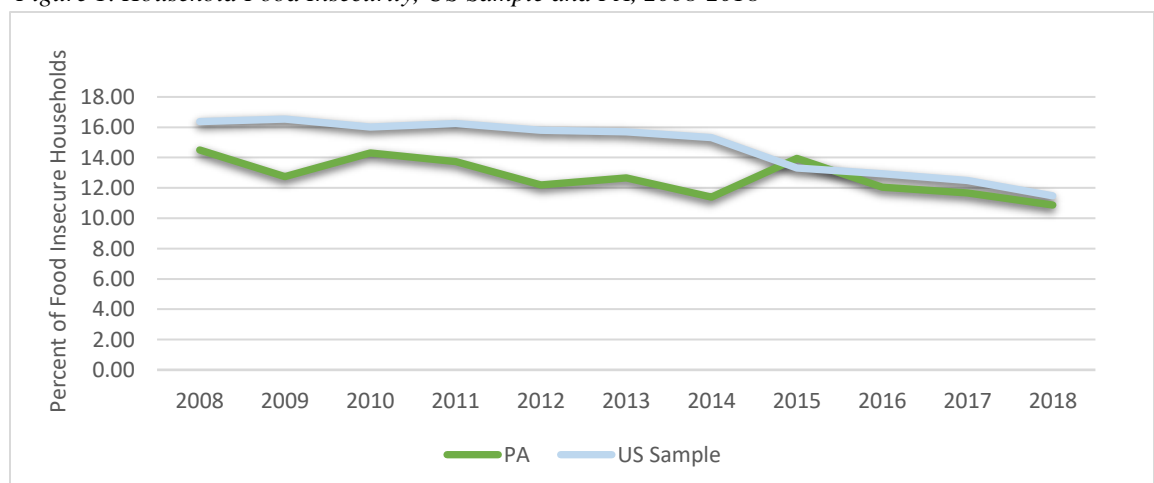
Trends in Food Security

Figure 1 highlights the trends in household food insecurity for Pennsylvania from 2008 to 2018, as well for the nationally representative sample during the same time period. These data are from the CPS-FSS and include households that are both low food and very low food secure.

During this time period, Pennsylvania food insecurity was at it highest point in 2008 at 14.5%, dropping to a low of 10.9% in 2018. Interestingly, there was an increase between 2014 and 2015 from 11.4% to 13.9%.

In comparing the state specifical sample to the larger, nationally representative one, we find that household food security in Pennsylvania is lower than the national sample in all years except for in 2015 when it was about the same (13.9% vs. 13.3%). The gap between the national and the Pensylvanian sample varied over the decade with the largest difference occuring in 2014 and the smallest in 2015. The difference in samples has remained under 1% since 2015.

Figure 2. Senior Food Insecurity (60+), PA, 2008-2018
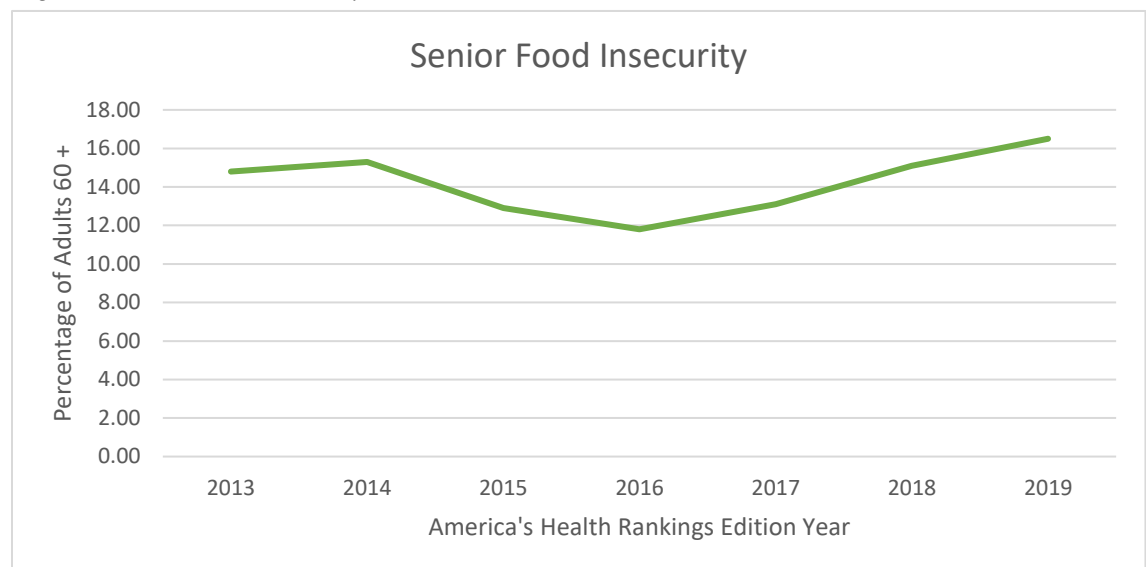
Another important feature of vulnerability to food insecurity is the aging of the population in Pennsylvania. Figure 2 utilizes data from the United Health Foundation's State Health Rankings (2013-2019 editions) to display food insecurity among seniors (60+) in Pennsylvania. Food insecurity among this group has been increasing since 2016. Increases in hunger and food insecurity among this population are likely to continue due to the growth in the senior population and aging among baby boomers throughout the U.S. This is of particular concern for P.A., as a rapidly aging State.

Prevalence of Food Security by Household Characteristics

Figure 3. Household Food Insecurity by Characteristics, PA, 2008-2018
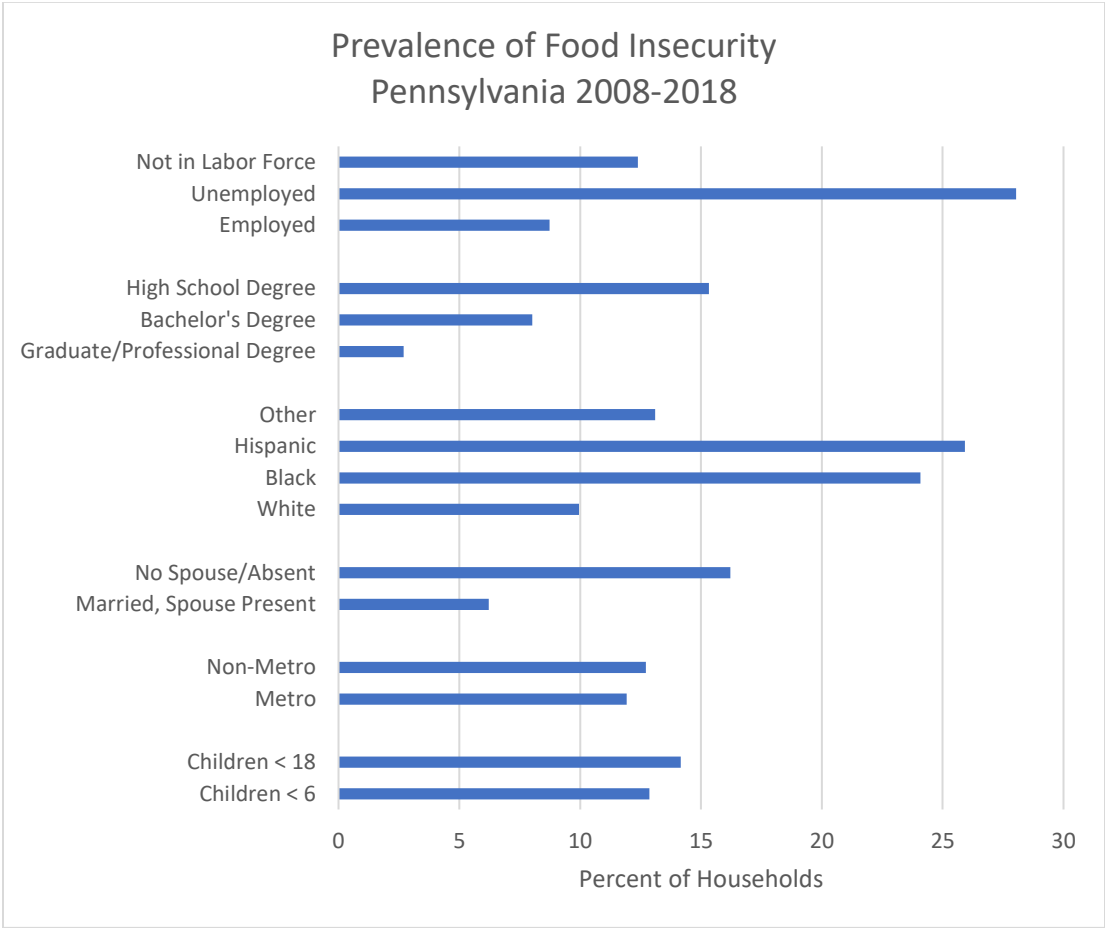

Figure 3 displays differences in food insecurity across various households in Pennsylvania. Having an unemployed householder is a clear risk for household food insecurity. Likewise, higher education and presence of a spouse are associated with a lower prevalence of food insecurity.

There is also considerable racial/ethnic disparities here so that Hispanic households fare the worst with over 25% food insecure (25.9%) followed closely by Black or African American households in PA.

But geographic differences are small at the aggregate level with a slightly larger proportion of households in non-metro counties were also food insecure (12.7% vs. 11.9%).

# Location Matters:
Metropolitan Differences in Food Security

Figures 4 and 5 display county level food environment index for non-metro and metro counties in 2019. This measurement accounts for food insecurity and distance to a grocery store or super market. The index ranges from 0 (worst) to 10 (best). The darker the green on the maps, the better the food environment index for the county. The range for all counties is 6.9-8.9 in the Commonwealth.

Figure 4 displays food environment indices for non-metro counties in PA only. Lawrence county has the worst food environment among non-metro counties (7.2) whereas Wayne county has the best (8.2).

The variability in food environments is higher in metro counties, as shown in Figure 5. Philadelphia has the worst food environment score (6.9) and Bucks county scores the best (8.9). In fact, the majority of the counties surrounding Philadelphia fall in the best overall category.

Overall, metro counties tend to have higher food environment indices compared to non-metro counties, as only two non-metro counties ranked in the best performing category of 8.6-8.9 indices.

Figure 4 Food Environment, Non-Metro Counties, PA, 2019

Food Environment Index
- 8.60 - 8.90
- 8.10 - 8.50
- 7.60 - 8.00
- 6.90 - 7.50
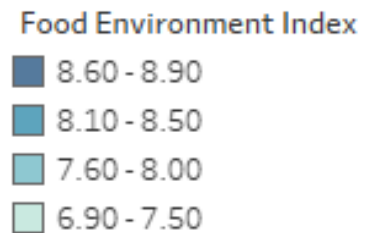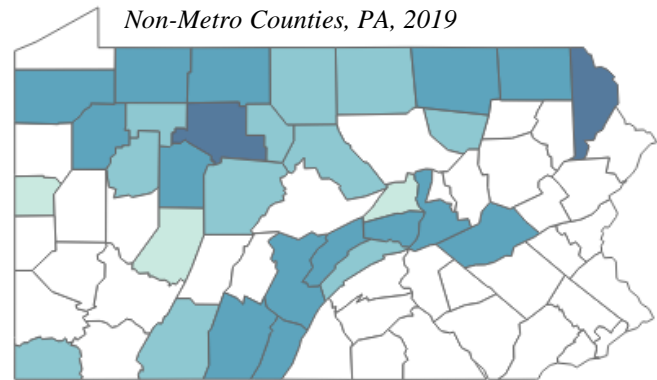
Figure 5 Food Environment, Metro Counties, PA, 2019
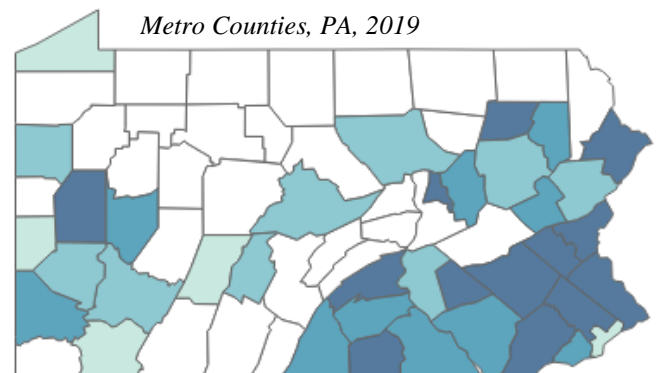
Policy Implications

Our findings highlight patterns of food insecurity across Pennsylvania. Although trend data suggests decreases at the national and state level, certain populations appear to be more vulnerable over time.

Pennsylvania has a large population of older residents, many of whom reside in rural counties. As these two factors are associated with risk in food security, there is potential for a compounding impact among the rural elderly in P.A.; an issue that is only poised to increase as the baby boomer generation continues to retire and age. Moreover, food insecurity is associated with increased health risks like obesity and stress, which are both linked to other chronic illnesses. Policy makers, social service workers, and health professionals are urged to recognize these patterns and implement strategies to combat hunger among these groups.

Positive strategies to address these issues include support for food assistance programs like SNAP and more localized efforts to increase access to food sources. Transportation is often an important barrier to accessing food for the elderly and rural population, thus improvement in this area is also advised.

References:

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