Extended Abstract
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Paper/Poster Title	The Geography of Black-White Differences in Food Insecurity in the United States

Abstract prepared for presentation at the 98th Annual Conference of The Agricultural Economics Society will be held at The University of Edinburgh, UK, 18th - 20th March 2024.

Abstract	***200 words max***

(A full version of this paper is available upon request.)

Despite marked declines in food insecurity in the U.S., sharp differences in food insecurity rates between Blacks and whites persist. In 2021, rates were almost three times higher for Blacks than whites. In this paper we examine whether there are differences in these gaps by geography by using data from Feeding America's Map the Meal Gap (MMG) for 2021. Our central findings are three-fold. First, there is very little differences in average food insecurity rates across rural urban continuum codes (RUCCs). Second, while minimum food insecurity rates by county are similar between Blacks and whites, the maximum rates are much higher for Blacks. Third, when analyzed by Congressional Districts, the Midwest stands out with very high differences between Blacks and whites in comparison to other regions. These results suggest that policy makers interested in closing racial gaps in food insecurity rates may wish to specifically direct resources to counties with wider gaps and to remove impediments to progress towards reducing these gaps.

Keywords	Food insecurity, Map the Meal Gap, poverty, hunger
JEL Code	I38, D12 see: www.aeaweb.org/jel/guide/jel.php?class=Q)

Introduction	***100 – 250 words***

The number of food insecure people in the United States has declined markedly over the past decade from 50.1 million (16.4% of the population) in 2012 to 33.8 million (10.4%) in 2021. Despite this decline, sharp differences in food insecurity rates between Blacks and whites persist. These gaps narrow somewhat but remain substantial even when one conditions on income.

This persistent gap in food insecurity rates between Blacks and whites has led to calls for more research into this topic among ag economists (Wilson, 2023). We take up this call by investigating one heretofore unexamined issue in this area – racial gaps by geography. If food insecurity varies spatially in a manner that correlates with the regional differences in racial population shares, regional factors may explain part of the observed differences in food insecurity rates by race. In this paper, we use data from Feeding America's Map the Meal Gap which began providing breakdowns for Blacks, Hispanics, and non-Hispanic whites in 2022 (data from 2020). We analyze these differences across various dimensions of geography.

Our central findings are three-fold. First, the average differences between Black and white food insecurity across rural urban continuum codes (RUCCs) are remarkably similar. Second, while minimum food insecurity rates by county are similar between Blacks and whites, the maximum rates are much higher for Blacks. Third, the Midwest stands out with very high differences between Blacks and whites in comparison to other regions.

Methodology	***100 – 250 words***

The official measure of food insecurity in the U.S. uses responses to 18 questions about food hardships due to financial constraints experienced by households. Based on these responses, households are said to be food insecure if they respond affirmatively to three or more questions.

The official food insecurity rates in the U.S. are established using data from the Current Population Survey (CPS). This data set is national and state representative but the sample size is too small for county representative results. In response, Feeding America's Map the Meal Gap (MMG) estimates a model of the determinants of food insecurity at the state level for the years 2009 to 2021. The resulting coefficients are then used with data from the county-representative American Community Survey (ACS) to estimate food insecurity rates at the county level. A similar approach is used for Congressional Districts.

Starting in the 2020 CPS year, results were disaggregated by county and Congressional Districts for Blacks, non-Hispanic whites, and Hispanics. In this study we use data from the 2020 MMG for Blacks and non-Hispanic whites. Areas are dropped from the analyses if they are in states with fewer than 10 unweighted Black persons in the CPS and/or unemployment information is not available for Black persons in at least half the years. They are also dropped if there are fewer than 500 weighted persons in the county. This results in a data set with 1,452 counties (out of 3,143) and 415 Congressional Districts (out of 436).

Results	***100 – 250 words***

We begin with a broad overview of food insecurity rates between Blacks and whites from 2008 to 2021. The rate for whites has remained relatively steady while on a fairly stable declining trend, from a high of 12.1% in 2011 to a low of 6.7% in 2021. There is more volatility in the rate for Blacks, while also featuring a steeper downward trend from a high of 29.7% in 2009 to a low of 15.8% in 2019. To provide another perspective on these stark differences, we provide maps of Black and white food insecurity rates for all counties where food insecurity rates are calculable for both groups. While almost all counties have Black food insecurity rates above 15%, almost no counties have white food insecurity rates above this level. We next use data from MMG to decompose the food insecurity rates for Blacks and whites by rural urban continuum codes (RUCCs), in other words, levels of rurality.

We next consider regression estimates of Black food insecurity rates and white food insecurity rates. After including the variables reflecting RUCCs, all else equal, rates are statistically significantly higher for both Blacks and whites for most RUCCs in comparison to the most metro designation of the RUCCs. The inclusion of state fixed

effects doesn't have a large impact for whites but it does diminish the magnitude and the statistical significance for the results for Blacks.

Results for Congressional Districts are also presented in a similar manner.

Discussion and Conclusion	***100 – 250 words***

This is the first study of geographic variation in food insecurity in the U.S. by race. The findings lead to several avenues for research, three covered here. First, while there are not differences by rurality in terms of the gap in food insecurity between Blacks and whites, both groups have substantially higher rates in in the middle of the urban-rural continuum (i.e., not the most metro nor the most rural counties) that see the highest rates of food insecurity for both Blacks and whites. This is contrary to much of the conventional wisdom about food insecurity being higher in the most rural areas. Second, while average food insecurity rates are far higher for Blacks than for whites there are many counties where the food insecurity rates are similar for the two groups and, in some cases, are lower for Blacks. A more granular consideration of why these gaps differ in these selected counties may be worthwhile. Third, the Midwest has far higher gaps than other regions especially compared to the South which has the highest number of Black persons. Over the past 15 years there has been a substantial movement from the Midwest to the South among the Black population. This shift in population is due to the strong economic growth in the South. Economic growth is one of the key factors leading to the decline in food insecurity in the U.S. since 2010; this may also prove to be a key driver of reducing the Black-white food insecurity gap.