An Analysis of the Impact of Food Insecurity and Education on the Economy

Kher, Dia (School: The Mississippi School for Mathematics and Science)

Mississippi is considered to be one of the unhealthiest states in the nation. This health burden and disparity has been found to be associated with food insecurity, the disruption of food intake due to low income. Previous research states that higher nutritional food intake is linked with the Gross Domestic Product (GDP) of a state or country; however, existing research has not assessed the effects or association of nutritional food consumption on GDP over time. Data collected from the U.S. Department of Agriculture from 2016-2021 was utilized to analyze the association between food insecurity and GDP growth. Recent trends show a correlation that suggests high food insecurity is linked to lower GDP of a state. To predict how Mississippi's economy may change as food security and consumption of nutritionally dense food increases, regression models were conducted using yearly household food insecurity, women's education level, excessive drinking among women, and GDP changes over the five years. The results support that there is a predicted inverse relationship between household food insecurity and GDP. As food insecurity decreases, GDP is expected to increase over time. These findings suggest that if food insecurity and hunger-based poverty traps are addressed in Mississippi, individuals will be healthier and more economically productive due to the increased access and consumption of nutritious foods which in turn is likely to produce long terms improvements in Mississippi's economy.

Awards Won: