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Food Insecurity in Broome County and its Effect on Adolescent Academic Performance

Aidan Gajewski: People, Politics, and the Environment, Source Project

Background

- Food insecurity is the **social and economic problem of a lack of food** for a period of time
- In 2018, **21.3% of children in Broome County were food insecure**
- Several studies suggest that **food insecurity results in decreased academic performance**, as concentration and focus can dwindle with a lack of food
- This project aims to understand **the link between food insecurity and academic performance in two schools within the county**, Tioga Hills (TH) and Calvin Coolidge (CC)

The increase in supplementary food programs in school has been vital for increased student engagement, leading to increased academic achievement.

Demonstrated Need for Assistance with Food at School (Free/Reduced Lunch and Supplementary Programs)

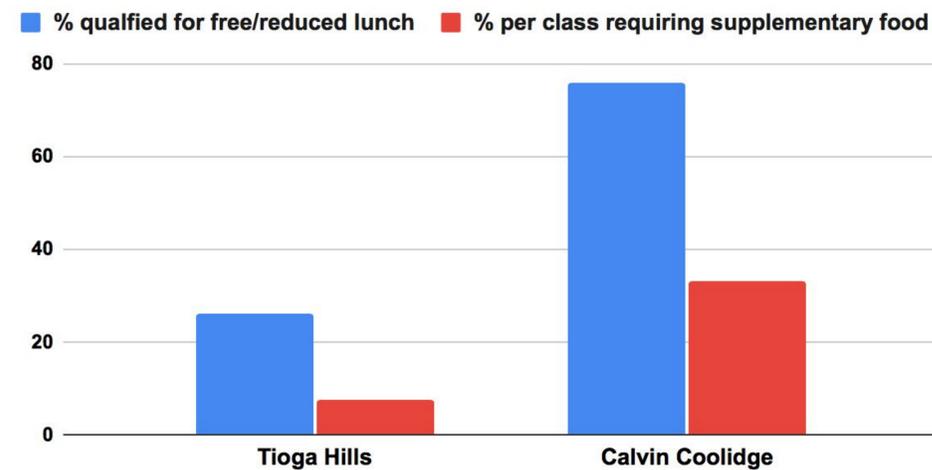


Figure 1: The poverty rate and unemployment rate in Binghamton (CC) is higher than Vestal (TH) and the New York State average. In an area with a lower socioeconomic status, the need for free/reduced lunch and supplementary food increased. Data from: National Center for Education Statistics, interviews

Results

- **Supplementary programs and changes in nutritional guidelines to the National School Lunch Program have decreased food insecurity** which has led to **higher engagement and better academic performance** within schools according to staff
- Standardized testing scores have remained relatively stagnant (CC performed below NY average each year, TH performed above NY average, imperfect measure)
- Breakfast during homeroom has **increased academic success**
- **Food insecurity has some link to academic performance** due to the effects it has on the ability of the students to concentrate and actively participate in school.

Methods

- Teachers, administrators, a food director, and other school staff were interviewed to determine how each school dealt with food insecurity and its relation to academics.
- Standardized testing scores from 2010-19 were collected for English/Language Arts and Mathematics and compared to the New York State average
- The socioeconomic status and food offerings in the service area were explored

“When they haven’t eaten, they are more tired, they put their head on their desk. They are less energetic and less enthusiastic. It affects everything.”

“...[we have] delivered breakfast straight to the classrooms. We have seen a tremendous impact on academics with that program. Also, there is better attendance to school. It’s been proven there are less referrals to the principal office. There are also less trips to the nurses office during the day.”

“We have proven the importance of school meals not only for health, but it has mental and academic benefits too. Binghamton is a prime example of that, free meals is an important tool for academics in a district.”

Discussion

- **Supplementary programs and free meals for students has a positive impact on academic performance** and should be continued, as school staff argue **student engagement increases when students feel nurtured**
- The National School Lunch Program should continue to provide a **free option for all students in the coming years** to bridge food insecurity

References

- Jyoti, D. F., et. al (2005). Food insecurity affects school children's academic performance, weight gain, and social skills. *The Journal of Nutrition*,135(12), 2831-2839. doi:https://doi.org/10.1093/jn/135.12.2831
- Patel, K. J., et. al (2020). Variability in Dietary quality of elementary school lunch menus with changes in National school lunch Program Nutrition Standards. *Current Developments in Nutrition*,4(9). doi:10.1093/cdn/nzaa138

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