



# What is the relationship between food insecurity and college students aged 18-22 and its effects on academic performance and how can proper nutrition be promoted?



Shannon Almonia NS, Karla Bugtong NS, Janelle de Dios NS, Danielle Flores NS  
Nicole Lacanilao NS, John Magbanua NS, Karla Ramos NS

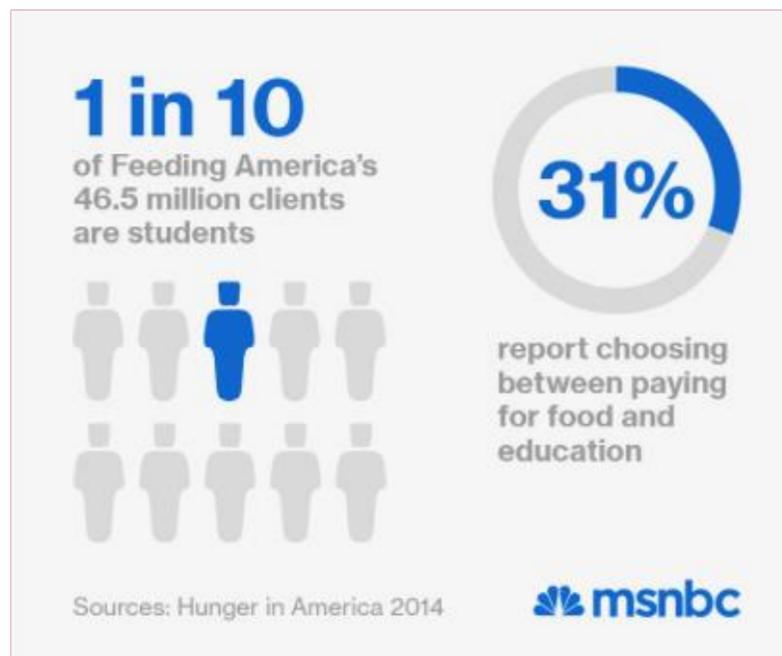
## Introduction

Food insecurity is defined as the limited or uncertain availability of nutritionally adequate and safe foods. It can also be defined as the limited or uncertain ability to acquire acceptable foods in socially acceptable ways. Previous research has observed that food insecurity can disrupt optimal development throughout the life cycle. A growing body of literature has documented the effects of food insecurity on cognitive, academic, and psychosocial development among college students. These studies consistently observed that food insecurity is associated with lower academic performance, poor health, and decreased psychosocial function. Among college students, financial hardship can translate into budget demands, such as tuition, textbooks, housing, utilities, and healthcare. These budget demands compete with money that can be used to purchase food. Over the past 30 years, the price of higher education has steadily outpaced inflation, the cost of living, and medical expenses. Food insecurity, as a potential consequence of the increasing cost of higher education, can be considered a major student health priority. College students face life-changing milestones during their transition to adulthood that may have long-lasting effects. Food insecurity during these years can potentially affect college students' cognitive, academic, and psychosocial development. Studies addressing food insecurity among college students suggest a higher prevalence of food insecurity compared with the general population. A previous study conducted in Hawai'i found that 45% of students were food insecure or at risk of food insecurity. The purpose of the current study was to further analyze the prevalence of food insecurity and identifying its correlates among students attending a rural university in Oregon.

## Findings

### Food Insecurity in the College Population

- Students who were employed were almost twice as likely to report experiences with food insecurity.
- Time spent working many hours (average of 18 hours, ranging from 4-42 hrs/wk) and lack of adequate food may affect student's academic success.
- Good academic performance is inversely associated with food insecurity.
- Students with grade point average of 3.1 or higher were 60% less likely to be food insecure.
- Food insecurity is an indicator of economic hardship that college students are facing.
- Income < \$1500 was the strongest correlate of food insecurity.
- For low income students, food insecurity is likely an outcome of trajectory of disadvantages, which can make them more vulnerable to living in poverty and not completing higher education.

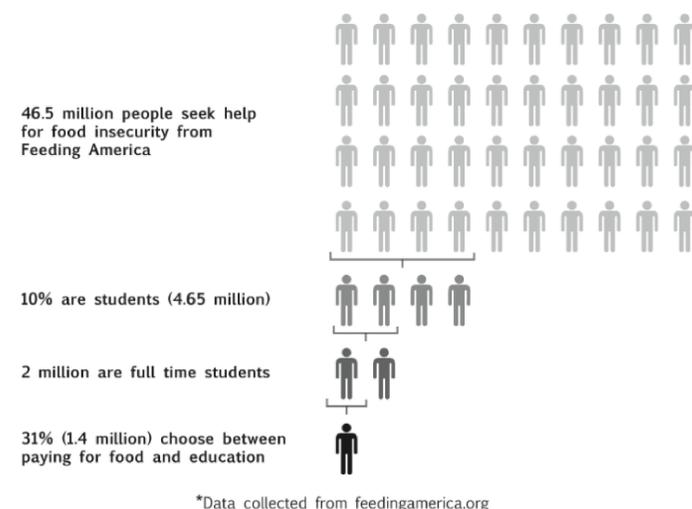


## Summary/Implications for Practice

- Identify risk factors for food insecurity among college students, such as low socioeconomic status, those who were food insecure undergraduates, minority background, and those who eat fast food (Martinez et al.)
- Recognize that poverty and lack of access to nutritious groceries interfere with ingestion of adequate amounts of food or usual diet.
- Comprehend the social environment and support systems since they highly influence the students' ability to intake proper nutrition.
- Be able to assess for and recognize the presence of risk factors and for signs of food insecurity.
- Bring awareness to food insecurity and promote the importance of proper nutrition.
- Provide resources such as access to food banks, special programs for students, and information on proper nutrition.

Study Title	Design	Sample/ Demographics
Food costs, diet quality and energy balance in the United States	Quantitative Experimental Study	n = 4,128 This study uses and explains certain data, such as NHANES (National Health and Nutrition Examination Survey) and CE (Consumer Expenditure Survey) with food costs in the U.S.
What Factors Increase Risk for Food Insecurity Among College Students?	Quantitative Cross-sectional Study	n = 4 Students have been randomly sampled of 8,932 students in survey in the UC system of California
Prevalence and Correlates of Food Insecurity Among Students Attending a Midsize Rural University in Oregon	Quantitative Cross-sectional Study	n = 352 Students attending a midsize rural university in Oregon
Examining the role of financial factors, resources and skill in predicting food security status among college students	Qualitative Study	n = 557 Undergraduate students in the Southern U.S. Both male and female adults were in the study at the ages 18+
The Prevalence of Food Security and Insecurity Among Illinois University Students	Quantitative Cross-Sectional Study	n = 1,882 Undergraduate Illinois university students, employing a survey containing the Household Food Security Survey Module
Food Insecurity among university students in Victoria	Quantitative Cross-Sectional Study	n = 124 Deakin University students and contains of food insecurity status
Factors Related to the High Rates of Food Insecurity among Diverse, Urban College Freshmen	Qualitative Experimental Study	n = 209 Students attending the southern university completed online survey. Anthropometrics were measured by trained staff

## Food Insecurity in College-aged Students



## Search Strategy

Iceberg, CINAHL, Credo, and Google Scholar search were used as databases to search for the articles. The articles in the search were limited to the past 10 years. They were also focused on college students, primarily 18 to 22 years old. Several articles were found on food insecurity, but seven articles were chosen to hone in on the prevalence of food insecurity in college students and its effects on academic performance. Keywords that were used to find these articles include food insecurity, college students, risk factors of food insecurity, effects of food insecurity, and academic performance.

## Conclusion/Further Study

### Conclusion

- Food insecurity among college students is due to the increasing costs of higher education
- This research has observed that food insecurity in college students is associated with lower academic performance, poor health, and decreased psychosocial function

### Further study

- Further research could include looking at other age groups, such as middle school age, elementary school age, or geriatrics age.
- Research could be done regarding which areas are more prevalent in experiencing food insecurity.
- Studies can also be done to determine in food insecurity is higher in women or men.
- Mostly quantitative studies were used, so more qualitative studies could have been included.