

The Impact of First-Generation Status on Food Insecurity and Educational Experience in Postsecondary Students

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Introduction

Background:

- Food insecurity is prevalent among college students, affecting 35-43% of postsecondary students¹.
- First-generation college students are especially vulnerable due to lower-income backgrounds and unique academic and social challenges^{2,3}.
- While food insecurity is linked to academic struggles, research on its impact specifically on first-generation students is limited.

Impact:

- Understanding these challenges will inform targeted interventions and institutional policies to support at-risk student populations.

Hypothesis:

- First-generation students experience higher levels of food insecurity and may show reduced academic outcomes compared to non-first-generation peers.

Aims and Objectives

Aims:

- Investigate the prevalence of food insecurity among first-generation students.
- Examine how food insecurity correlates with academic performance (GPA, impact on classes) in first-generation students.

Objectives:

- Compare food insecurity levels and academic outcomes between first-generation and non-first-generation students.

Methods

Study Design:

- Mixed-methods design conducted at Oakland University during two semesters (Winter & Fall 2024).
- Data were collected through an anonymous online survey administered via Qualtrics.

Participants:

- 302 students aged 18 and older.
- Data collected on first-generation status, food security levels, academic outcomes (GPA, impact on classes), and use of food assistance resources.

Survey:

- 25 questions including Likert scales, multiple-choice questions, and open-ended items, allowing for both quantitative and qualitative data collection.

Analysis:

- Chi-square tests, T-tests, ANOVA, and Linear Regression used to analyze correlations between first-generation status, food insecurity, and GPA.

Results

First-Generation Student Composition

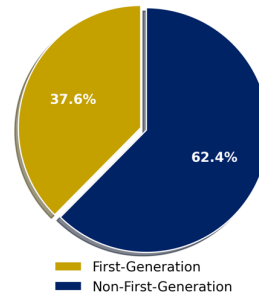


Figure 1:

- The pie chart shows the distribution of first-generation and non-first-generation students in the sample.
- 37.6% of the students are first-generation, while 62.4% are non-first-generation.

Food Insecurity Levels by First-Generation Status

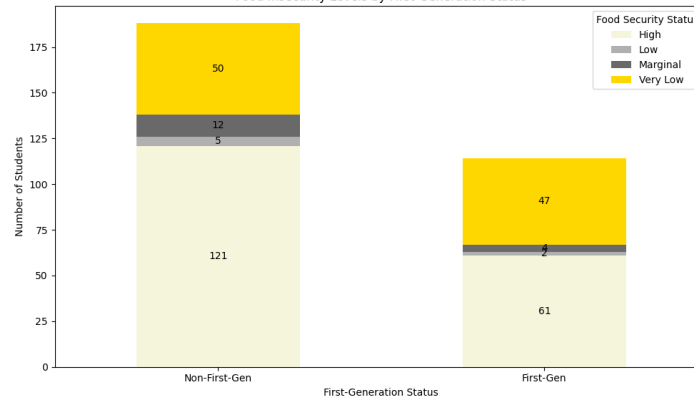


Figure 2:

- Distribution of food insecurity levels among first-generation and non-first-generation students. The stacked bars represent the number of students in each food security category (High, Low, Marginal, Very Low).
- The data show that 41.2% of first-generation students experience 'Very Low' food security, compared to 26.6% of non-first-generation students.

ANOVA: GPA Comparison Across Food Security Levels

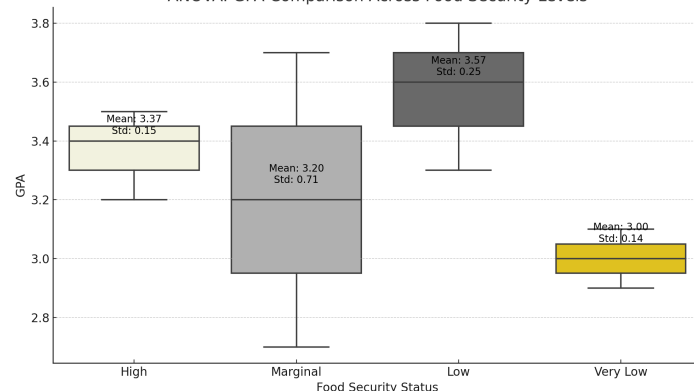


Figure 3:

- The box plot shows the distribution of GPA for first-generation students categorized by food security status.
- The ANOVA results ($p > 0.05$) suggest that there is no statistically significant relationship between food insecurity and academic performance (GPA) in first-generation students.

Conclusions

Findings:

- First-generation students face higher rates of food insecurity but maintain academic performance.
- Food insecurity does not significantly impact GPA but is correlated with increased use of food assistance programs.
- First-generation students demonstrate resilience, using available resources effectively to maintain academic success.

Limitations:

- Small sample size and potential biases in self-reported data may limit generalizability.

Implications/Considerations:

- Implementation of more flexible academic policies, such as allowing students to make up missed classes or assignments without penalty, to accommodate students who may be dealing with food insecurity and other related challenges.
- Conduct awareness campaigns to inform students about the food assistance programs and academic support services available on campus.
- Establish feedback loops with students via surveys to ensure that current programs are meeting their needs and to identify any gaps in support.

Future Directions:

- Further studies with larger samples and longitudinal data are needed to explore long-term academic outcomes.

References

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