FOOD INSECURITY AMONG COLLEGE STUDENTS AT A WESTERN UNIVERSITY

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OBJECTIVES

• Attendees will be able to describe food insecurity in the U.S.
• Attendees will be able to discuss the issue of food insecurity on college campuses.
• Attendees will be able to recall the methods and results of the USU food insecurity study.
• Attendees will be able to identify potential programs/interventions universities can implement to reduce food insecurity among students.
WHAT IS FOOD INSECURITY?

- Limited or uncertain ability to acquire or consume an adequate QUALITY or sufficient QUANTITY of food in socially acceptable ways (USDA, 2017).

- 11.8% of households (40 million people) were food insecure in 2017
WHO IS FOOD INSECURE IN THE U.S.?

- Working poor
- Low-income single parents and their children
- Ethnic minorities
- Elderly
- College students
STUDENT HUNGER

• Literature suggests the rate of food insecurity is 4x higher than the national average.

• 57% of potentially eligible low-income students with food insecurity risk factors in 2016 did not participate in SNAP.

• National prevalence of food insecurity on college campuses has been not yet been determined.

Dubick, 2016; Cady, 2014; GAO, 2018
NEGATIVE IMPACT

- Poor academic performance and outcomes
- Cognitive development
- Psychosocial development
- Higher odds of depression, anxiety, and low self-esteem

Mukigi & Brown, 2018
WHY IS THIS HAPPENING?

“To suggest that an undergraduate student is unable to access nutritional food likely conjures up our own memories of occasionally eating ramen noodles for dinner before studying at the library or joining friends at a party. The profile of college students today, however, is much different than that of undergraduates from previous generations.

More of today’s college students are non-traditional: they tend to be older, first generation, from lower-income and communities of color, and attend community colleges. Growing numbers of undergraduates are also post-traditional students who juggle family responsibilities and part- or full-time work while they pursue a college-level certification or degree. These students also face other circumstances that make paying for a college education more challenging, including a decade of state retrenchment from funding public higher education and a significant rise in the cost of tuition, coupled with a general increase in the cost of goods and services.”

Christopher Nellum, American Council on Education
GAPS IN THE RESEARCH

• Racial minorities
• **Varying student demographics**
• **Rural/small town settings**
• For-profit universities

Thompson, 2019
INTRODUCTION

Study Aim
Assess the rate of food security on Utah State University’s Logan Main Campus.

Hypothesis
Rates of food insecurity on Utah State University’s Logan Main Campus will be similar to the rates of food insecurity found on other college campuses in the United States (~30-50%).
A random sample of 2900 USU students were asked via email to participate in a food security survey in the spring of 2018.

- Survey was available for 2 weeks
- Incentive was a drawing to win 1 of 10 $50 Amazon gift cards

Students had to be 18 years of age or older and enrolled in classes for the spring 2018 semester.
METHODS CONT’D

The survey used was based on a previously developed survey by the Wisconsin Hope Lab.

The survey included questions such as:

• Demographics
• Enrollment status, year in college, and GPA
• Financial/employment status
• College expenses, participation in assistance programs.
• The USDA’s 10-item food security questionnaire
• Nutrition quality, barriers to accessing food
• Awareness of the on-campus food pantry
Coded data analyzed using SPSS.

- Descriptive frequencies calculated for each question
- Attributes associated with food security levels were calculated using Spearman Rho and Chi-square analyses.
- Multiple regression analyses were also run to control for confounding factors.
- Multivariate logistic regression – to be done
RESULTS

• N = 952 students (32.8% response rate)

• Demographics
  • 50.6% Male
  • 89.2% White/Caucasian
  • 28.3% Married or in domestic partnership
STUDENT FOOD SECURITY AT USU

Degree of food security among USU students

- Very low food security: 46%
- Low food security: 22%
- Marginal food security: 16%
- High food security: 16%
STUDENT FOOD SECURITY AT USU

Degree of food security among USU students

- Food Secure: 32%
- Food Insecure: 68%
FOOD INSECURITY & YEAR IN COLLEGE

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage of Food Insecure Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year</td>
<td>10.00%</td>
</tr>
<tr>
<td>2nd Year</td>
<td>20.00%</td>
</tr>
<tr>
<td>3rd Year</td>
<td>25.00%</td>
</tr>
<tr>
<td>4th Year</td>
<td>30.00%</td>
</tr>
<tr>
<td>5th Year +</td>
<td>35.00%</td>
</tr>
</tbody>
</table>
### GENERAL ASSOCIATIONS

<table>
<thead>
<tr>
<th>Association</th>
<th>Chi-square coefficient ($x^2$)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being currently employed</td>
<td>.084</td>
<td>p = .012</td>
</tr>
<tr>
<td>Having student loans</td>
<td>.199</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td>Using credit cards to pay for college expenses</td>
<td>.132</td>
<td>p &lt; .001</td>
</tr>
<tr>
<td>Using:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SNAP</td>
<td>.095</td>
<td></td>
</tr>
<tr>
<td>Free or reduced price meals</td>
<td>.108</td>
<td></td>
</tr>
<tr>
<td>On-campus food pantry</td>
<td>.172</td>
<td></td>
</tr>
<tr>
<td>Medicaid or public health insurance</td>
<td>.134</td>
<td></td>
</tr>
<tr>
<td>Housing assistance</td>
<td>.085</td>
<td></td>
</tr>
<tr>
<td>Transportation assistance</td>
<td>.101</td>
<td></td>
</tr>
<tr>
<td>Tax refunds</td>
<td>.098</td>
<td></td>
</tr>
<tr>
<td>Veterans benefits</td>
<td>.074</td>
<td></td>
</tr>
<tr>
<td>Being female</td>
<td>.090</td>
<td>p = .026</td>
</tr>
<tr>
<td>Being a racial/ethnic minority</td>
<td>.113</td>
<td>p = .001</td>
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</tbody>
</table>
## CORRELATIONS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation Coefficient</th>
<th>P-value</th>
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</thead>
<tbody>
<tr>
<td>GPA</td>
<td>0.147</td>
<td>$p &lt; .001$</td>
</tr>
<tr>
<td>Hourly wage</td>
<td>-0.216</td>
<td>$p &lt; .001$</td>
</tr>
<tr>
<td>Parent’s highest level of education</td>
<td>-0.128</td>
<td>$p &lt; .001$</td>
</tr>
<tr>
<td>Student loan amount</td>
<td>-0.146</td>
<td>$p = .014$</td>
</tr>
</tbody>
</table>
LIMITATIONS

• Cross-sectional study design
• USDA Food Security survey – individual vs. household
WHAT CAN BE DONE?

- Educating faculty, students, and staff
- Nutrition, cooking, and budgeting classes
- Food pantries & other food provisions
- Centralizing student services
- Emergency aid
- Research/data analysis

GAO, 2018
FOOD SECURITY EFFORTS AT USU

- On-campus food pantry (SNAC)
- Campus Kitchen at USU
- Hunger Solutions Institute at USU
- Gleaning program
- Food Recovery Network
CONCLUSIONS

• Food security rates among students at Utah State University fit within the national average (32%)

• Many variables are associated with food insecurity among college students

• More research is needed to create definite conclusions regarding associated variables

• Students may benefit from increased programs and resources to alleviate hunger among college students


THANK YOU

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