

# Student Food Insecurity Survey Report



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**Student Affairs**  
*Center for Community Engagement*

**2016**

# Student Food Insecurity Survey: Assessment, Predictors, Consequences and Potential Solutions

**Rodica Lisnic, (PhD)**

Principal Researcher - Food Insecurity Survey  
Center for Community Engagement

Division of Student Affairs  
University of Arkansas

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University of Arkansas  
Arkansas Union, A643 Fayetteville, AR 72701

## ABOUT THE REPORT

This report communicates the results of the Food Insecurity Survey conducted among students at the University of Arkansas. It describes and presents the state of food security perceived by students. The research takes into consideration multiple factors that potentially increase or decrease the likelihood that students become food insecure. Financial resources, access to food, housing, employment and social capital are some of the factors included in the study. The study also looks at how food insecurity influences students' health and academic performance. 2015 primary student data was used to accomplish the goals of this research. Findings reveal a high rate of food insecurity among students. In particular, students who work for more than 20 hours per week are at a higher risk of being food insecure. Implications for action and possible solutions are discussed.

Contact Information:

**Rodica Lisnic,**  
Principal Researcher, Food Insecurity Survey,  
Center for Community Engagement,  
University of Arkansas  
[rlisnic@uark.edu](mailto:rlisnic@uark.edu)

# CENTER FOR COMMUNITY ENGAGEMENT

The Center for Community Engagement (CCE) is part of the University of Arkansas. CCE serves as the liaison between the University and the local community and non-profits by engaging students in a variety of volunteering experiences. Part of CCE are the food programs which include the Full Circle Pantry (FCP) and Razorback Food Recovery which work in tandem to provide food assistance on campus and beyond. FCP was founded in 2011 by a group of students who became aware of their peers' struggles with hunger. The pantry has grown from serving 12 people in its first month of operation to serving an average of 300 students, staff, faculty and their households each week. FCP is supported by many student organizations, offices, departments and other campus and community partners who donate food, personal care items and funds to keep our shelves stocked. The Pantry is entirely student run. A leadership committee of six student volunteers and one intern are selected annually through an application process. This committee then handles all operations for the Pantry including managing inventory, creating best practices, handling client data, making budgets and recruiting volunteers.

## **Claire Allison**

Program Coordinator, Campus Hunger Initiative  
Center for Community Engagement  
University of Arkansas  
A644A Arkansas Union  
Phone: 479-575-5293  
Fax: 479-575-4844  
[service.uark.edu](http://service.uark.edu)

## **Angela Oxford**

Director  
Center for Community Engagement  
University of Arkansas  
Arkansas Union A643  
Fayetteville, AR 72701  
479-575-4365  
<http://Service.uark.edu>

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This project was made possible due to the generous support from Tyson Foods Corporate Social Responsibility office. This grant called for the assessment of student food insecurity and related issues at the University of Arkansas as a way to contribute to the small but growing body of research on hunger among college students.

## ACKNOWLEDGMENTS

The Center for Community Engagement would like to thank Gary Gunderman, the Director of the Institutional Research and Assessment for his help with getting the student sample for this study. In addition, CCE would like to thank Dr. Kevin Fitzpatrick for his feedback on the research design and survey instrument. CCE is grateful that so many students participated in the project by answering the survey questions.

I would like to thank Claire Allison, the Food Programs coordinator at the CCE, for tirelessly reviewing the multiple versions of the survey instrument and of this report.

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## INTRODUCTION AND PURPOSE OF THE PROJECT

The main purpose behind this project was to assess the prevalence of food insecurity among students at the University of Arkansas, Fayetteville. College students' experience with food insecurity is an area that has been sparsely researched. Besides assessing student food insecurity rates, this study also looks at factors, like food accessibility, housing, employment, financial resources, access to social networks and university services, participation in the campus community, and food preparation skills and resources, that have been previously identified as being related to food insecurity. Of interest in this project are also students' academic performance and physical health, which are often affected by food insecurity. While the report provides a detailed description of many variables that potentially are related to students' food insecurity, cross tabulations were run only between a couple of these variables and food insecurity.

## PROJECT OBJECTIVES

1. Knowing the rate of food insecurity among students on campus is necessary for better meeting the needs of students who are food insecure, through potential initiatives like the expansion of our food programs.
2. Reveal the types and sufficiency of financial resources students use for meeting their food needs.
3. Understand how connected students are to their academic and campus communities.
4. Identify any potential housing, financial and employment issues that may relate to food insecurity.
5. Conduct an assessment of student health and academic performance.
6. Assessment of students' food preparation resources and skills.

## DATA AND SAMPLE SIZE

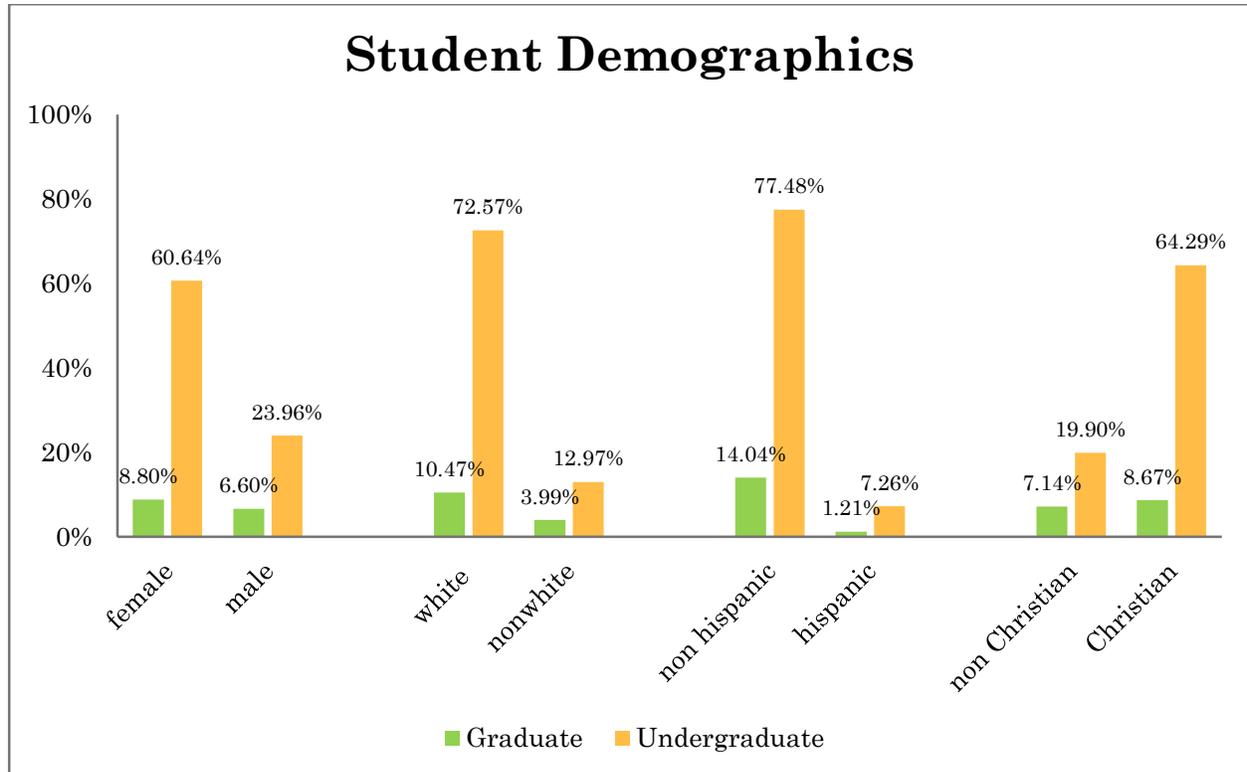
A random, stratified by gender and race sample of 3431 students (20% of the student population) was selected for this study. 525 respondents started the on-line survey. However, 418 respondents finished the survey, resulting in a response rate of 13%.

# CHAPTER 1

## WHO ARE THE STUDENTS? (DEMOGRAPHIC QUESTIONS AND STUDENT STATUS QUESTIONS)

To get a perspective of who the students in this study are, multiple question about their socio-demographic background were asked.

**FIGURE 1: STUDENT DEMOGRAPHICS**



As seen in Figure 1, 69% of respondents are women and 31% are men. A majority of respondents are White (83%), and 17% are non-white. 8% of respondents are Hispanic. 92% of participants are US Citizens, 7% are International Students and 1.5% are Permanent Residents. 73% of students are Christian and 27% are Non-Christian or do not follow a religion. 17% of students in the study have either a mental or a physical disability. 94% of respondents are heterosexual and 6% are homosexual, bisexual or questioning. 85% of students in this sample are undergraduates and 15% are graduate students. 94% are full-time students and 6% are part-time students.

Most of our respondents (41%) are students at the J. William Fulbright College of Arts and Sciences, followed by students at the College of Education and Health Professions (19%), the College of Engineering (15%), Sam M. Walton College of Business (12%), Dale Bumpers College of Agricultural, Food and Life Sciences (10%), School of Law (2%), and Fay Jones School of Architecture (2%).

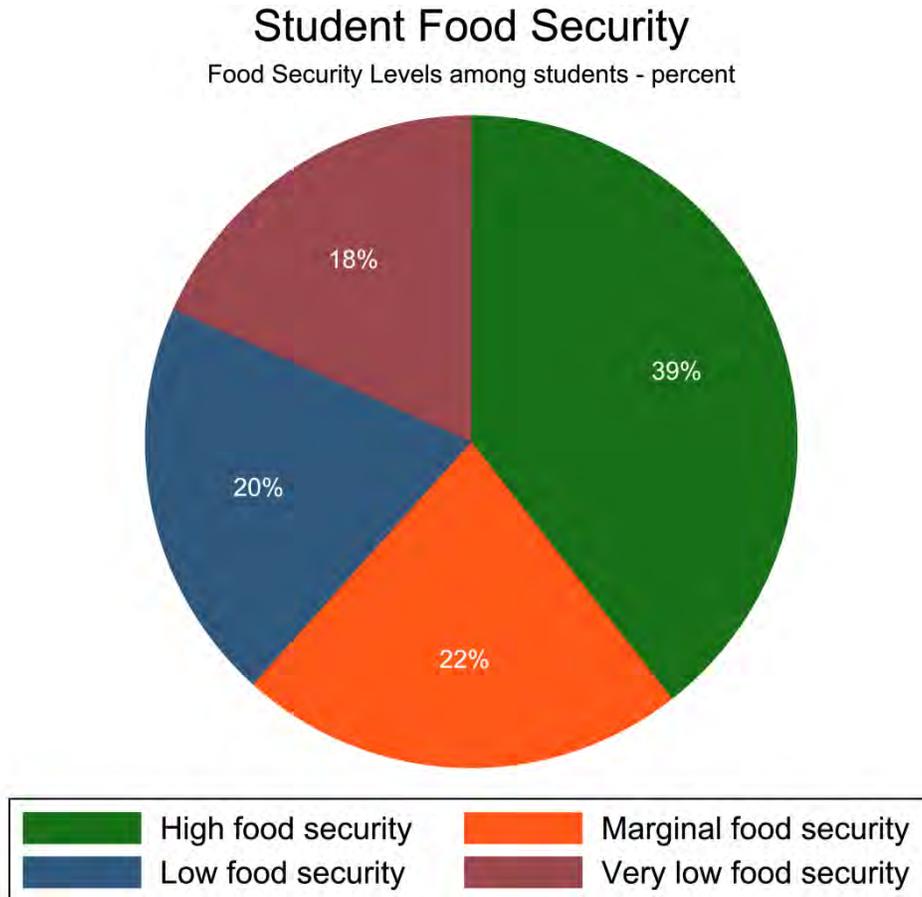
Most of our respondents are single (84%), 15% are married or living with partner in a committed relationship and 1% are divorced or separated. 6% of respondents have children, and 3% care for a dependent or ill family member.

## CHAPTER 2

## STUDENT FOOD SECURITY

Multiple survey questions ask students about the availability of food, as defined by USDA, in the past 12 months. A modified version (due to lack of sufficient responses to 2 questions) of the 10 item US Adult Food Security Survey Module (USDA) was adopted to identify the stages of food security for the students in this study.

FIGURE 2: STUDENT FOOD SECURITY



As seen in Figure 2, 39% of students are highly food secure<sup>1</sup>, 22% are marginally food secure, 20% experience low food security and 18% experience very low food security. Thus, the overall food insecurity rate at the University of Arkansas is 38%.

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<sup>1</sup> USDA defines the four levels of food security in the following way: “high food security - no reported indications of food-access problems or limitations; marginal food security - one or two reported indications—typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diets or food intake; low food security - reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake; very low food security - reports of multiple indications of disrupted eating patterns and reduced food intake.”

These findings do not come as a surprise since existing research reveals somewhat similar results at other US universities and colleges (Hughes et al. 2011, Gaines et al. 2014).

## FOOD SECURITY BY DEMOGRAPHIC GROUPS

### RACE

Guided by research which indicates that compared to White students, African American, Hispanic and Asian students are more likely to experience food insecurity (Freudenberg et al. 2011, Maroto et al. 2015), several cross tabulations for food insecurity by demographic variables (race, academic level) were run.

**FIGURE 3: FOOD SECURITY BY RACE**

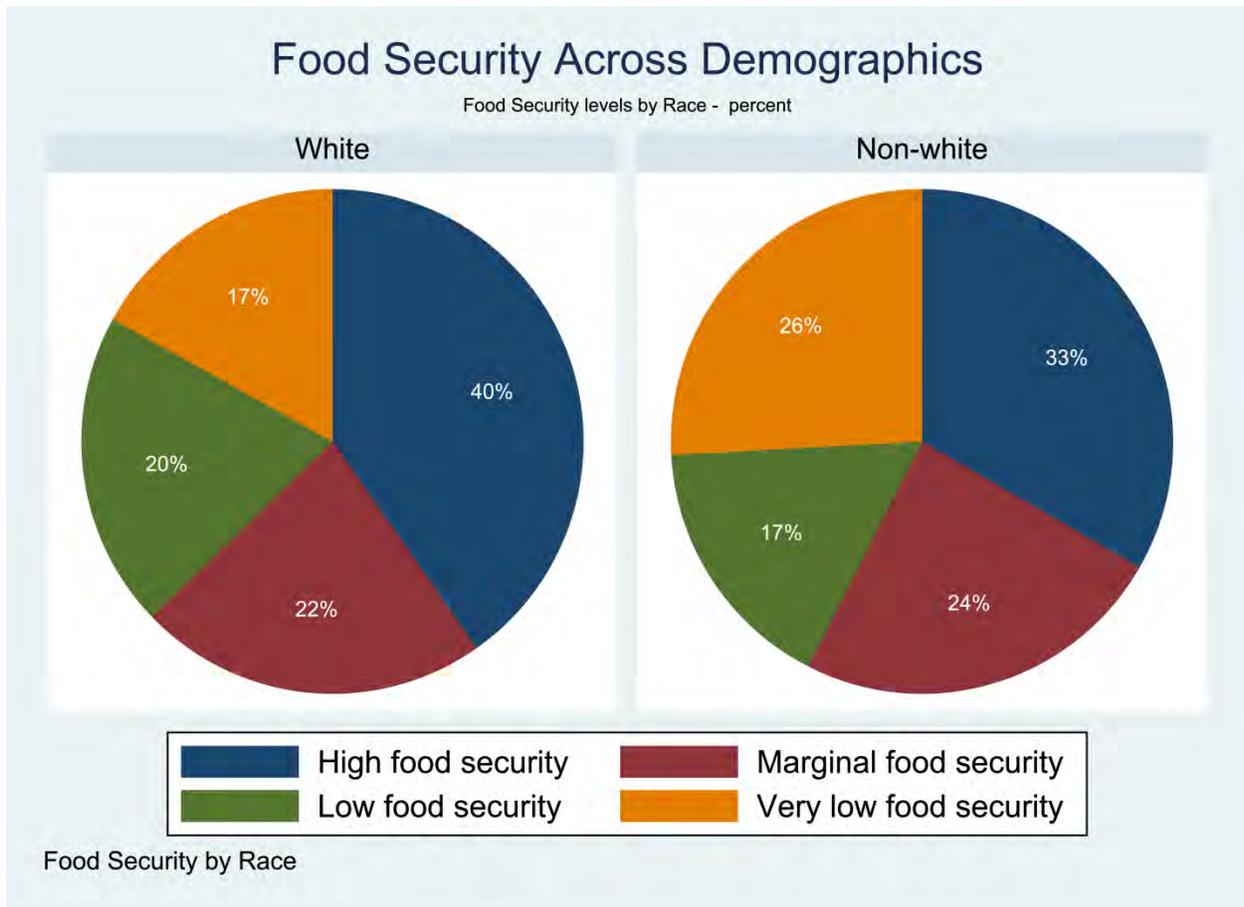
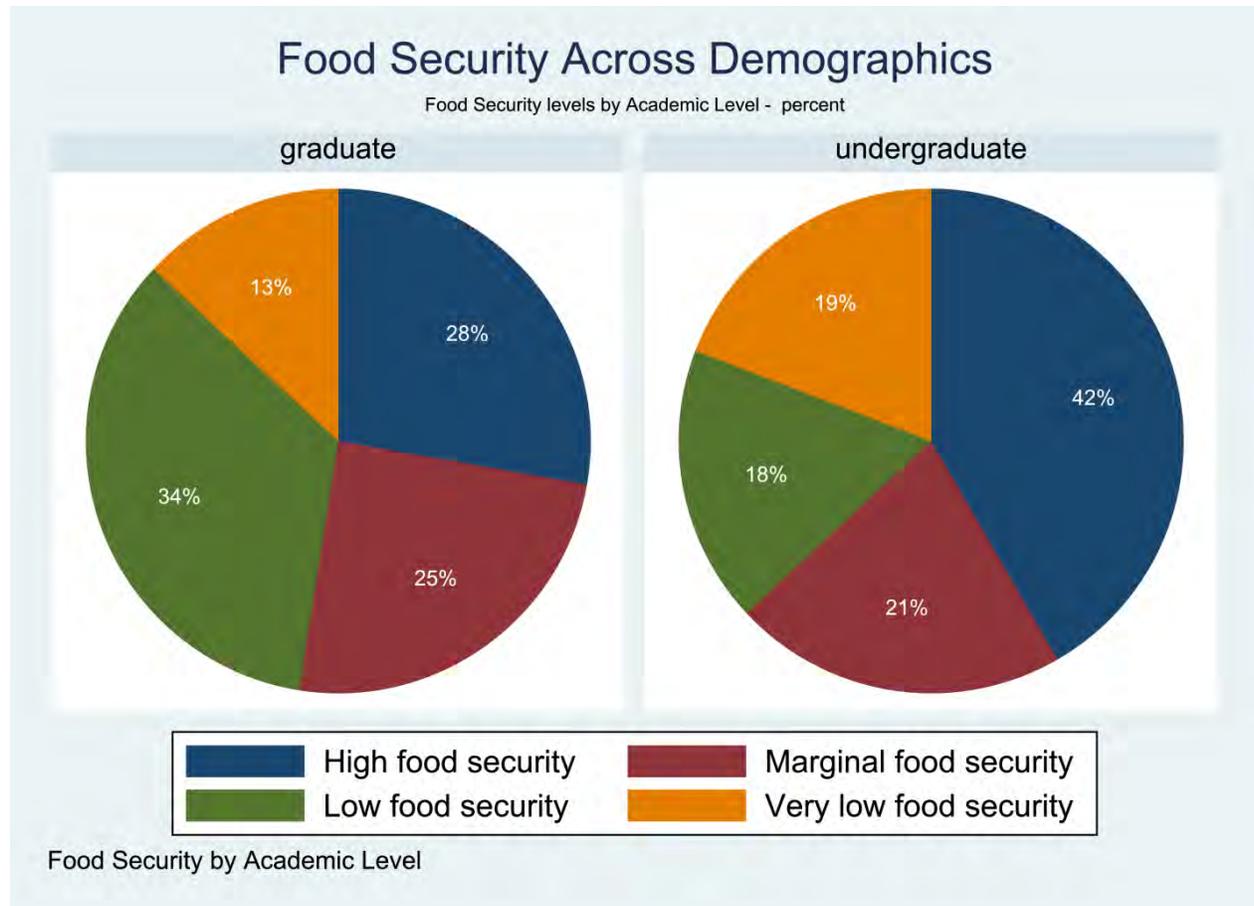


Figure-3 shows that compared to White students, minority/non-white students experience food insecurity at a higher rate<sup>2</sup> (37% versus 43%). These results confirm the findings in Freudenberg et al. (2011) and Maroto et al. (2015) studies.

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## ACADEMIC LEVEL

**FIGURE 4: FOOD SECURITY BY ACADEMIC LEVEL**



As reported in Figure 4, graduate students are more food insecure than undergraduate students<sup>3</sup> (47% versus 37%). To my knowledge, no previous study compares student food insecurity by academic level.

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<sup>2</sup> Results generalizable at lower confidence levels or larger samples.

<sup>3</sup> Results generalizable at lower confidence levels or larger samples.

## **CHAPTER 3**

## COOKING SKILLS, ACCESS TO COOKING RESOURCES AND FOOD PANTRY USAGE

In this section, results from the cooking skills student self-assessment are reported. Questions about cooking skills were included in the survey since existing research (Gaines et al. 2014) show that high food secure students have increased cooking self-efficacy compared to students who experience marginal and low food security. Several survey questions<sup>4</sup> ask students to report how confident they feel about their ability to prepare meals. Most students (70%) in this study feel confident that they can cook a nutritious meal, 24% feel moderately confident and 6% do not feel confident that they can cook a nutritious meal. 69% of students feel confident, and 22% feel moderately confident that they can cook a meal in a short amount of time, and 8% of students do not feel confident about the same. 46% of students feel confident and 35% feel moderately confident that they can prepare a nutritious meal without spending a lot of money, while 19% of students do not feel confident about the same. 89% of students feel confident and 9% feel moderately confident that they can follow a recipe, while 2% of students do not feel confident that they can follow a recipe. Relatedly, several questions<sup>5</sup> inquire about students' cooking skills and about their resources used for preparing food.

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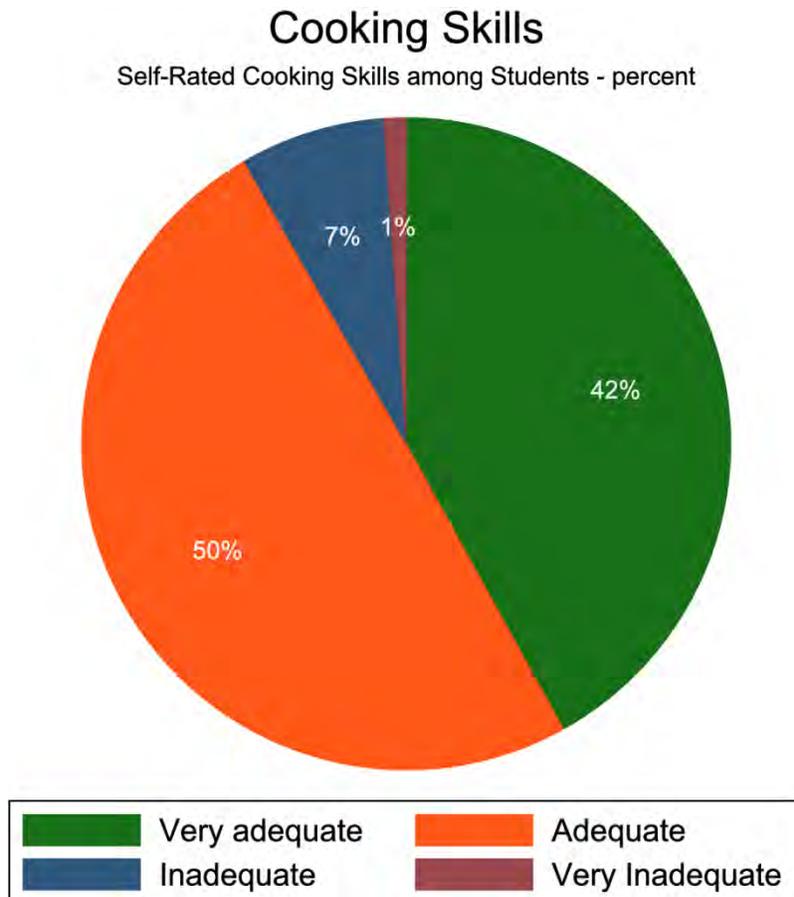
<sup>4</sup> These survey questions were adopted from Clifford et al. (2009) research.

<sup>5</sup> These survey questions were adopted from Larson et al. (2006) research.

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## COOKING SKILLS

FIGURE 5 : COOKING SKILLS



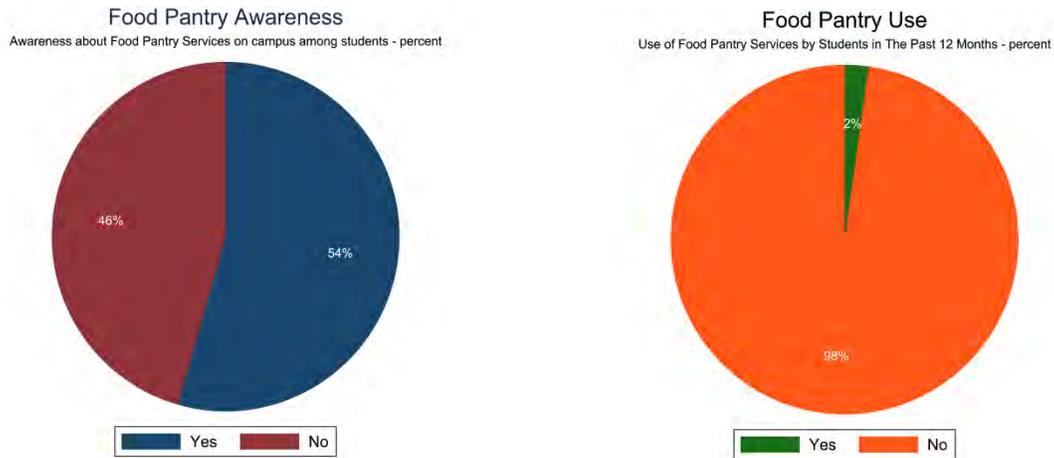
As shown in Figure 5, these results indicate that: 92% of students rate their cooking skills as adequate, and 8% of students rate their cooking skills as inadequate. Appliances for food preparation are rated as adequate by 88% of students and inadequate by 12% of students. Food selection in local stores is rated as adequate by 94% of students and as inadequate by 6% of students. 64% of students report the time available for preparing food is adequate, and 36% report this time is inadequate.

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## FOOD PANTRY AWARENESS AND USAGE

Questions about the university food pantry were included in the survey to find out about students' awareness about this service and about their usage of this service.

**FIGURE 6: FOOD PANTRY AWARENESS AND USE**



54% of students in this study know that the university has a food pantry and 46% do not know (Figure 6). Of the students who know that there is a food pantry (226), 2% (5) used it within the past 12 months (Figure 6). Thus, overall 1% (of 418) of students used the food pantry in the past 12 months.

## CHAPTER 4

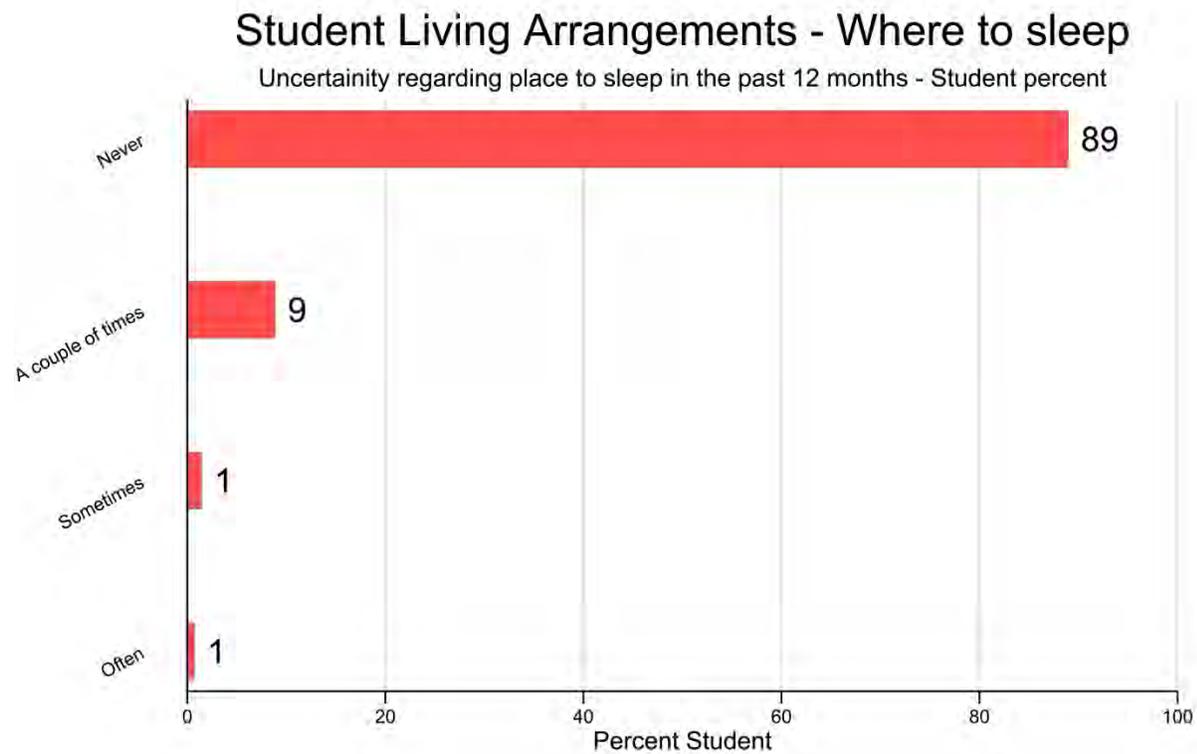
## STUDENTS' HOUSING AND EMPLOYMENT

The survey asks students about their housing situation, who they live with, and whether they are employed. These questions were asked because existing research suggests that students who do not live with relatives (Chaparro et al. 2009, Maroto, Snelling and Linck 2015) are more likely to be food insecure compared to students who live with relatives. Questions about students' employment were also included in the survey because previous research shows that students working more than 20 hours per week are more likely to be food insecure (Freudenberg et al. 2011).

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### STUDENTS' LIVING ARRANGEMENTS

FIGURE 7: STUDENT LIVING ARRANGEMENTS-WHERE TO SLEEP



Data in Figure 7 shows that during the past 12 months, 11% of respondents have been unsure of where they would sleep at night.

With regard to living arrangements, this data shows that 86% of students live off-campus and 14% live on-campus.

FIGURE 8: STUDENT LIVING ARRANGEMENTS

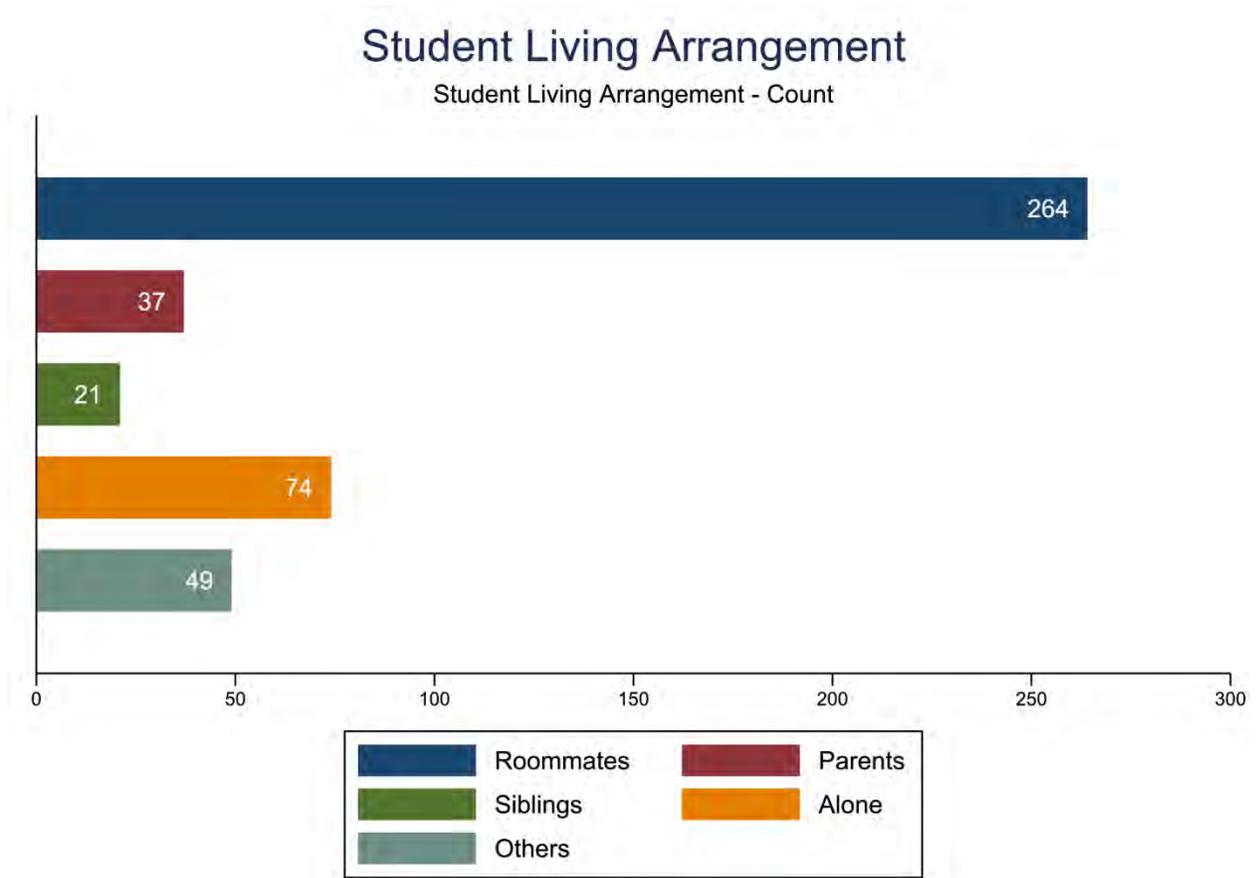


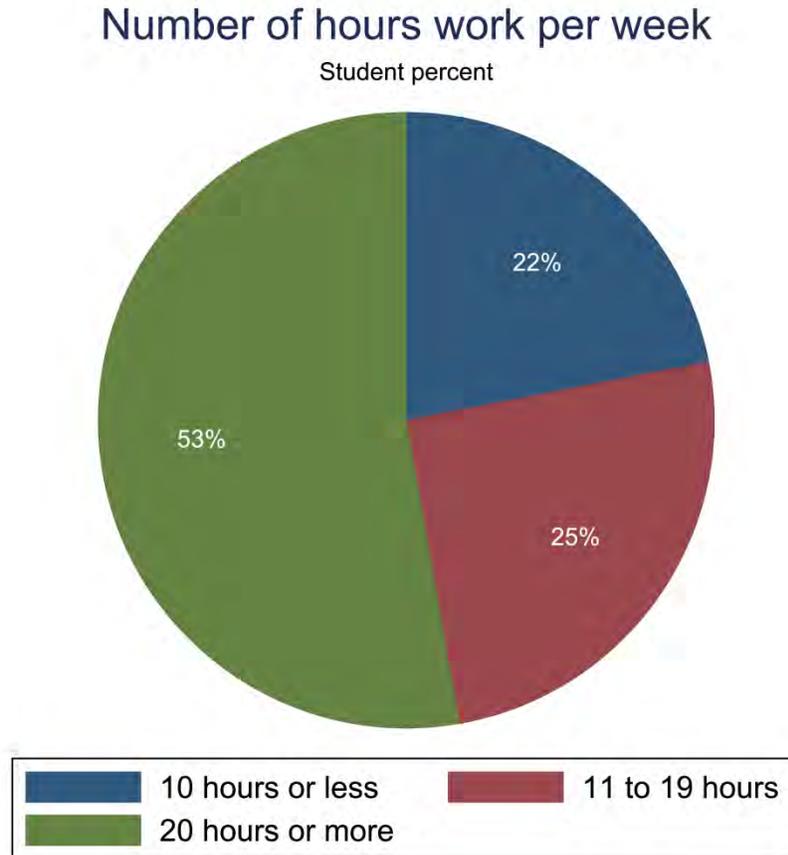
Figure 8 shows that 64% (264) of students live with roommates, 18% (74) live alone, 9% live with parents (37), and 5% (21) live with siblings.

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## STUDENT EMPLOYMENT

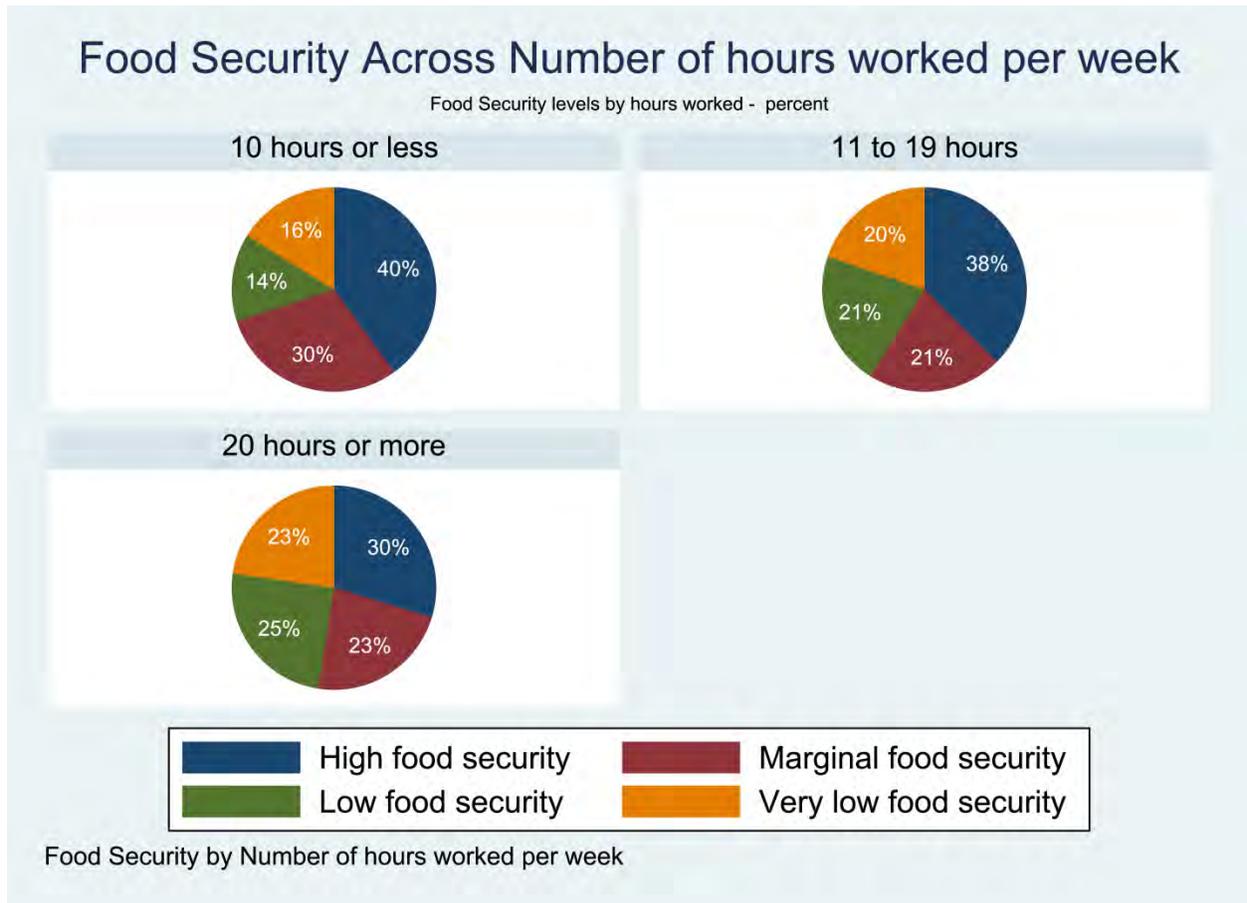
57% (239) of students in this study are employed. 46% (107) of the employed students work on campus and the rest 54% (125) work off campus.

**FIGURE 9: HOURS WORKED/WEEK**



As shown in Figure 9, of the students who are employed (239), 22% work 10 hours or less per week, 25% work 11 to 19 hours per week and 55% work for 20 hours or more per week.

FIGURE 10: FOOD INSECURITY BY HOURS WORKED/WEEK



Data in Figure 10 indicates that students who work 11 to 19 hours per week are more food insecure than students who work less than 10 hours per week, while students who work 20 hours or more per week are more food insecure than all other working students.

This finding confirms existing research (Freudenberg et al. 2011) and suggests that the more students work the more likely they are to be food insecure. Most likely, the jobs these students have are low-paying jobs that do not provide sufficient financial support to preclude them from being food insecure.

## **CHAPTER 5**

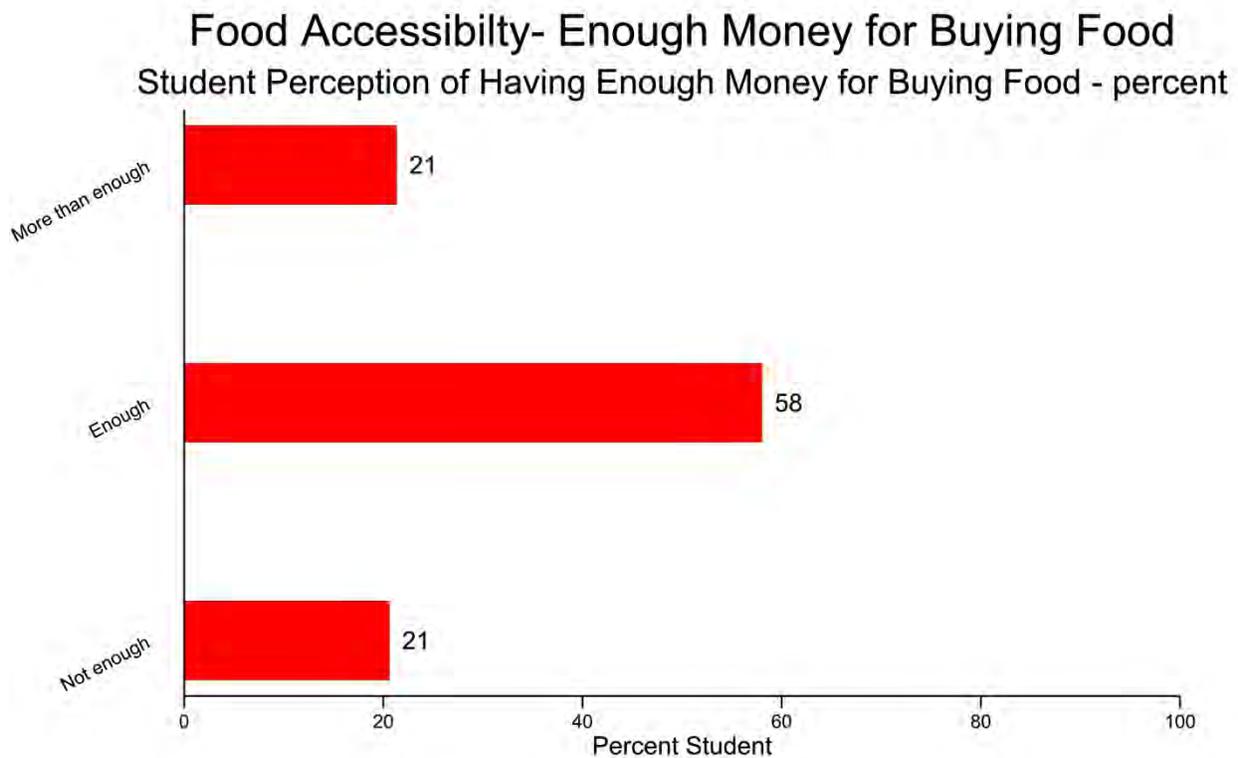
## FINANCIAL RESOURCES AND ACCESS TO FOOD

Questions about students' financial resources used for living expenses, including food, and about students' access to food sources were added in the survey. The justification for adding such questions is that students who do not rely on their families for paying for their daily necessities (Gaines et al. 2014), and who have difficulties accessing food resources (Willis 2013) are more likely to be food insecure. The accessibility of food results show that 5% of students find it difficult to access the nearest place (from their home) to buy food by walking, riding a bike, driving, or by taking the bus.

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### FINANCIAL RESOURCES

FIGURE 11: ENOUGH MONEY FOR BUYING FOOD



As indicated in Figure 11, 21% of students, report that they do not have enough money to spend on everyday things like food. Other results from the survey also

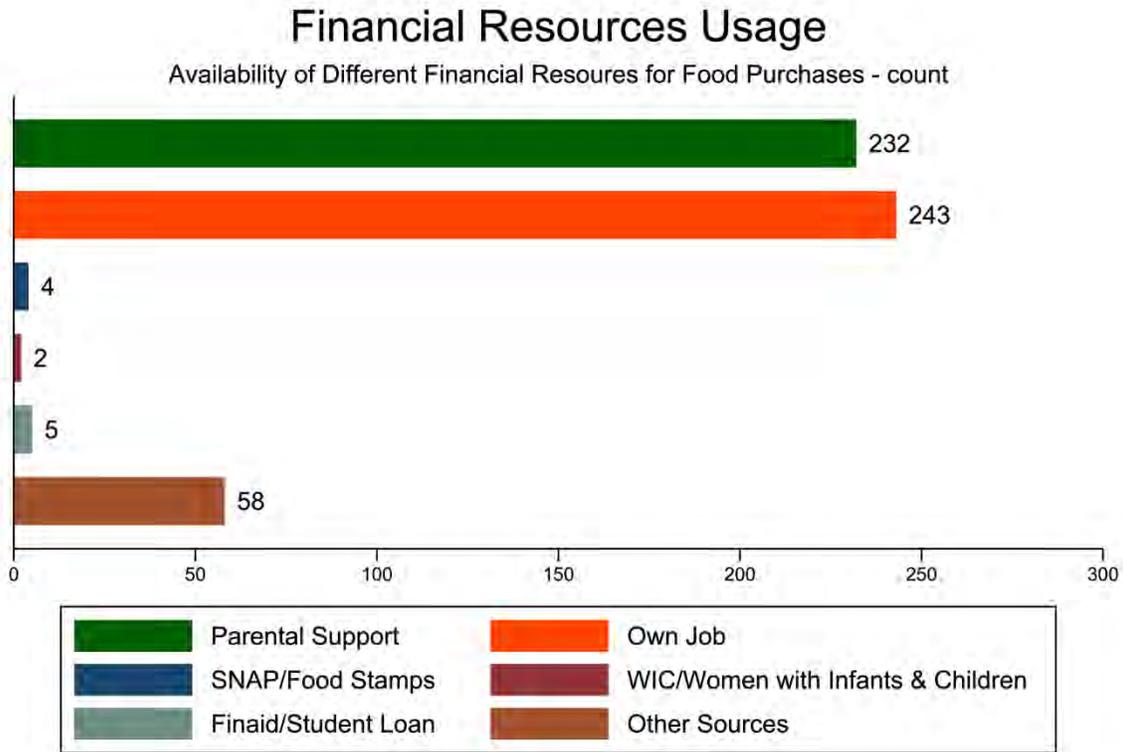
revealed that 7% of students think there is not enough variety of food at the places where they buy food.

When it comes to financial resources, students use multiple overlapping venues to pay for their studies. For example, 56% of students rely on parental support to pay for their studies, 32% have jobs that pay for their studies, 60% have scholarships, 8% have fellowships, 3% have assistantships, 49% use financial aid and student loans and 6% use other financial resources.

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## SOURCES OF FINANCIAL SUPPORT

**FIGURE 12: FINANCIAL RESOURCES FOR BUYING FOOD**



Students use overlapping resources to pay for their daily food purchases as well. As shown in Figure 12, 48% (232) of students use parental support for buying food every day, 58% (243) pay for food from money earned in their own jobs, 1% (5) of students use financial aid/student loans to pay for food. Only 1% (4) of students use food stamps for their daily food purchases and less than 1% (2) use WIC to pay for

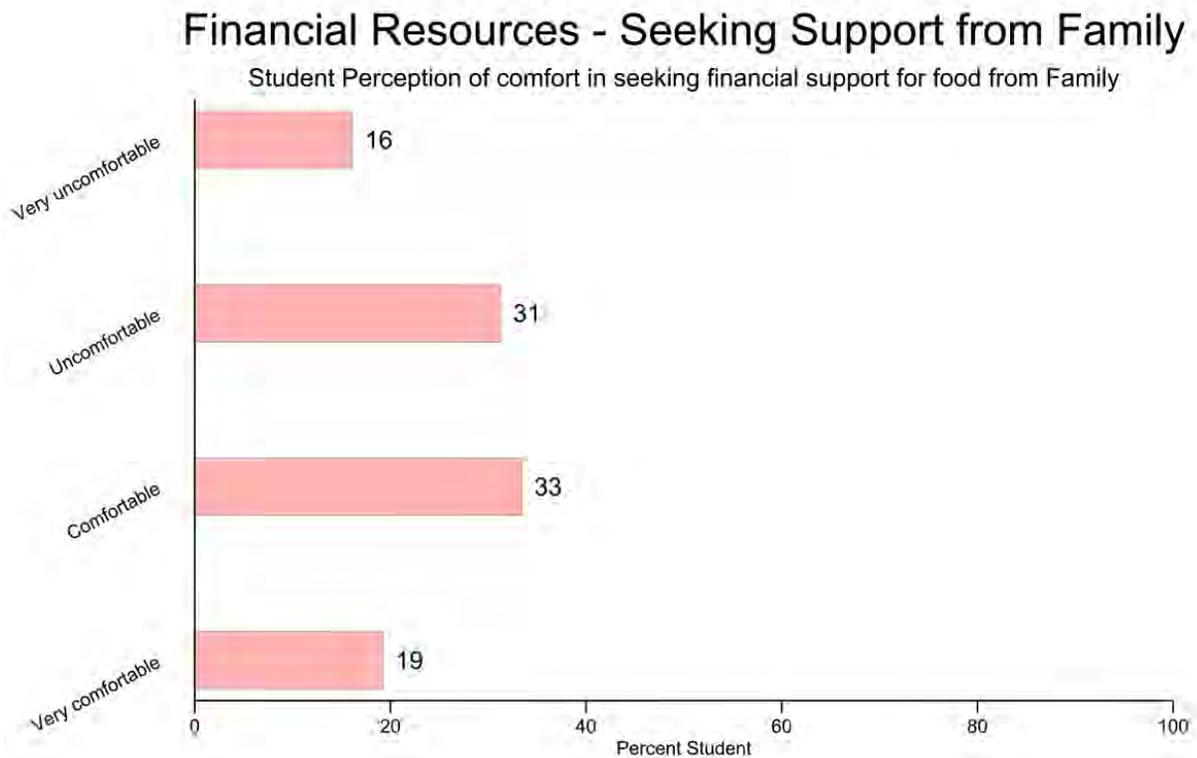
food. The “other sources” include the following: scholarships, assistantships, fellowships, and support from partner.

When asked who they would ask for help in case they did not have enough money to buy food 86% of students said they would ask their parents for help, 21% reported they would ask relatives (other than parents) for help, 26% would ask their friends for help, and 17% would ask their roommates for help. A very small percent of students would ask their classmates (1%), work colleagues (1%) and professors (1 student) for help in case they do not have enough money to buy food.

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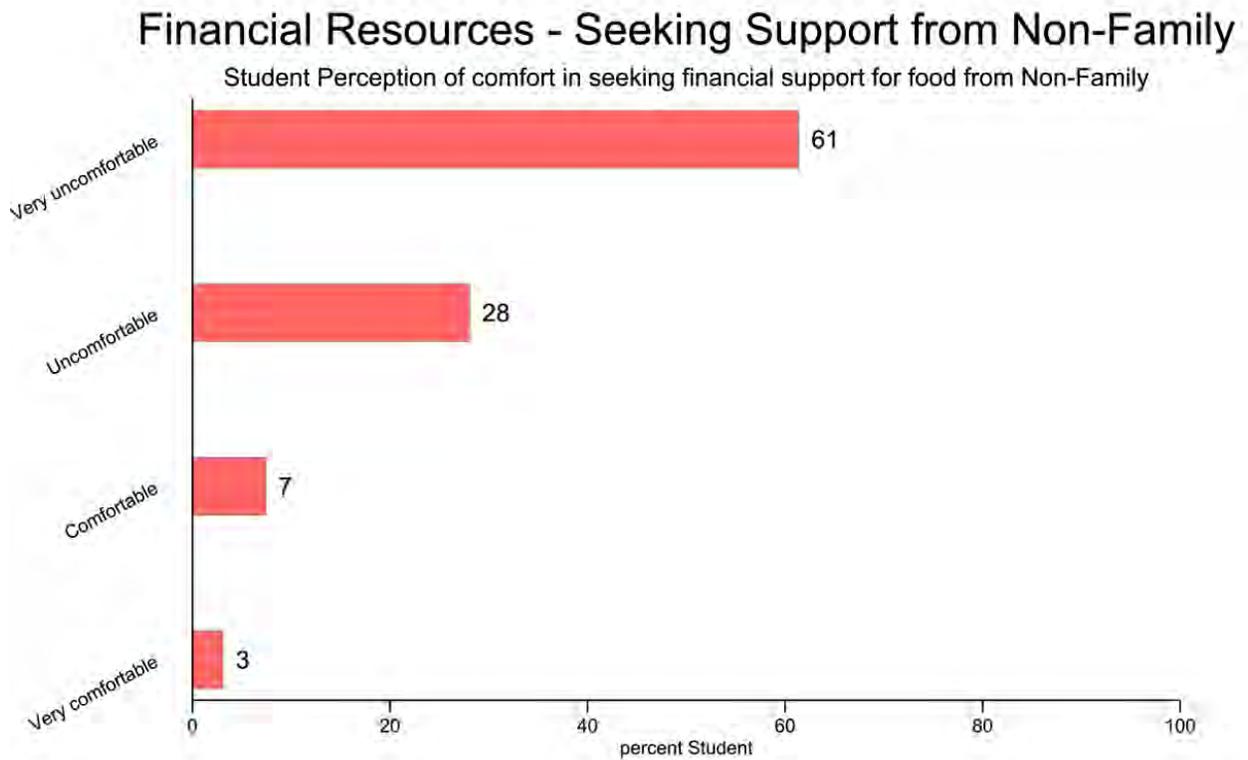
## SEEKING SUPPORT

**FIGURE 13 : COMFORT LEVELS ABOUT SEEKING SUPPORT FROM FAMILY**



Questions about whether students would feel comfortable asking family and non-family members for help with their food needs yielded the following results: 47% of students in the sample would feel uncomfortable and 53% would feel comfortable asking family members for financial support with their food needs (Figure 13).

FIGURE 14: COMFORT LEVELS ABOUT SEEKING SUPPORT FROM NON-FAMILY



Furthermore, 89% of students would feel uncomfortable and 10% would feel comfortable asking non-family members for financial support with their food needs (Figures 14).

## CHAPTER 6

## SOCIAL CAPITAL

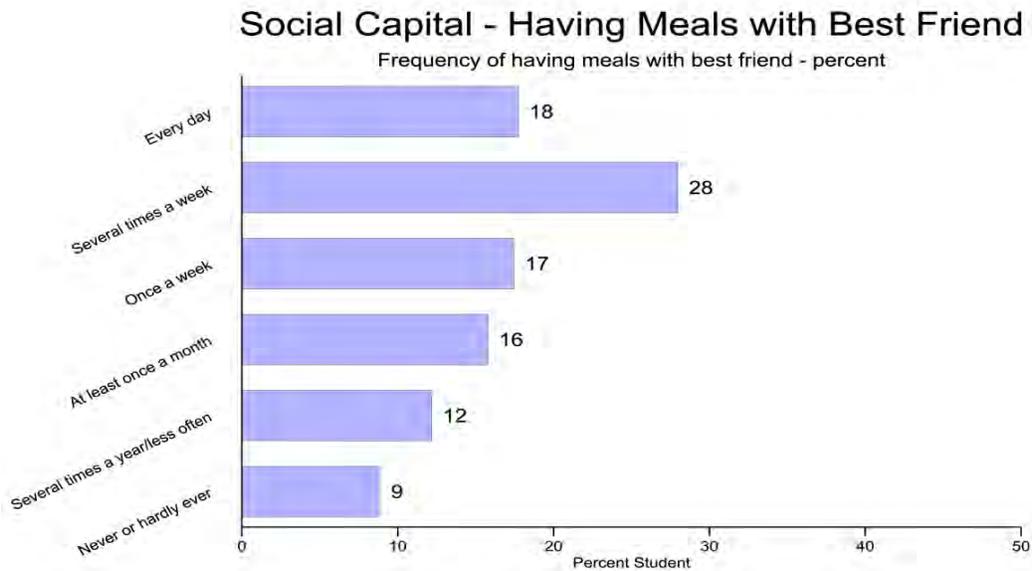
Questions about friendships, family relationships, relationships with work and student organization colleagues and relationships with classmates were added in the survey<sup>6</sup> because existing research (Martin et al. 2004, Willis 2013) suggests that students who have more friends and more interactions with colleagues (social capital) are less likely to be food insecure.

Most students in our sample have a best friend (87%), and 13% do not have a best friend. 70% of students see their best friend at least several times a week and more frequently, while 30% of students do not see their best friend as frequently (once a week to hardly ever). Contact with the best friend by telephone, e-mail, text message, Twitter, Snapchat, Instagram, or Facebook happens frequently (at least several times a week) for 90% of students and not so frequently (once a week to hardly ever) for 10% of students.

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## MEALS WITH FRIENDS

FIGURE 15: HAVING MEALS WITH BEST FRIEND



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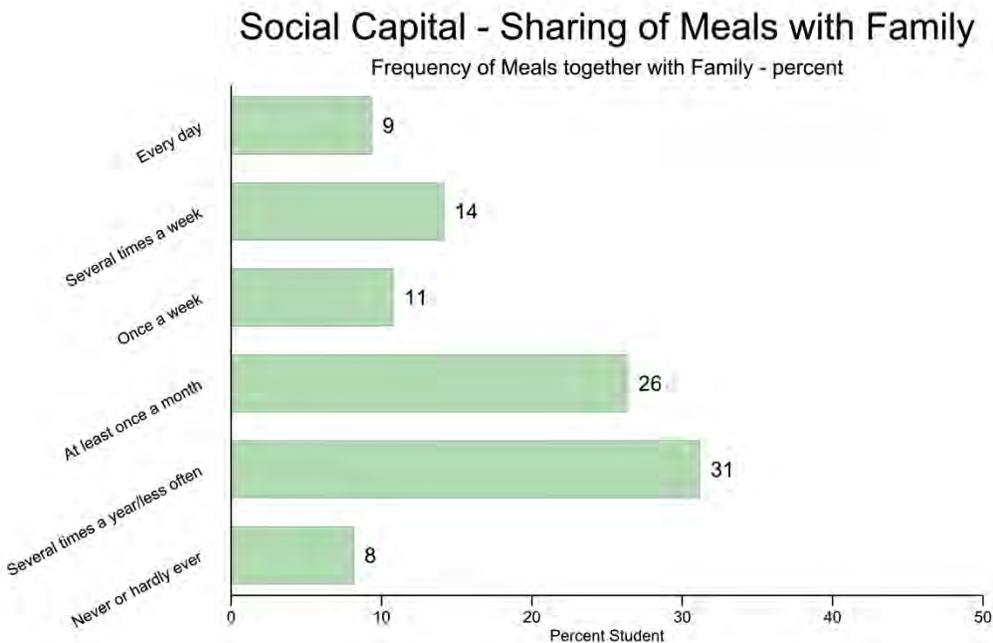
<sup>6</sup> Several questions in this section of the survey were adopted from Fitzpatrick (2012) research.

Eating together with their best friend doesn't happen as often as seeing or communicating with him/her: 46% of students eat frequently (at least several times a week) with their best friend and 17% of students eat with their best friend once a week, while 37% of them do not eat as frequently with their best friend (once a month to hardly ever) (Figure 15).

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## MEALS WITH FAMILY

FIGURE 16: HAVING MEALS WITH FAMILY



Students do not eat together with their families as frequently as they do with their best friend, which is understandable since most students live away from their home locations. Specifically, 34% of students eat with their families every day to once a week, while the other 65% eat with their family only once a month to hardly ever (Figure 16).

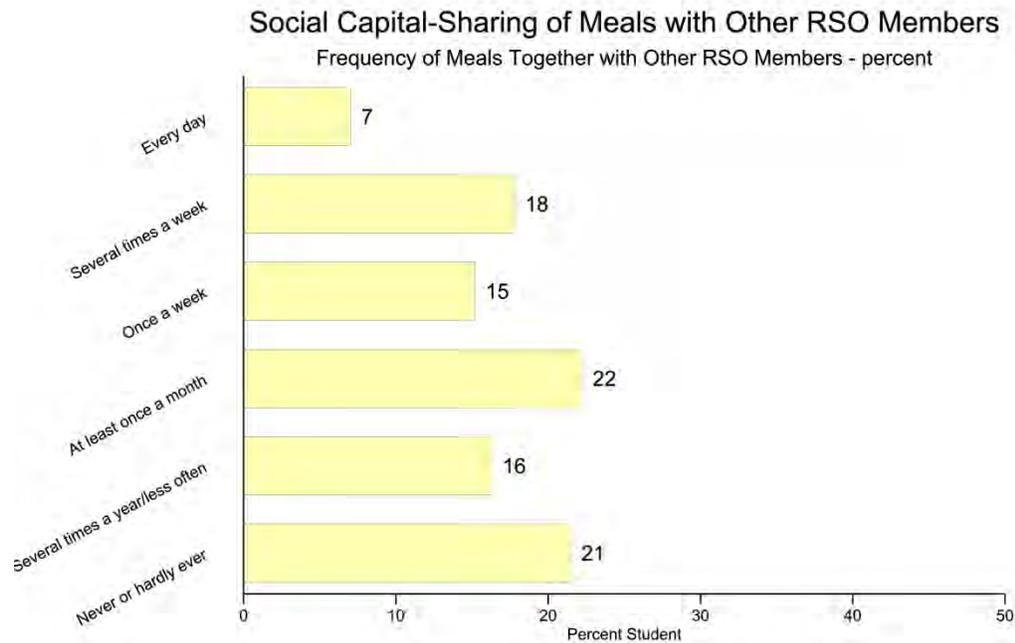
65% of 418 of students in this sample are members of a Student Organization. Most of them are members of multiple student organizations. Most students (79% of 270) reported that they meet several times a week, once a week or once a month with their student organizations colleagues during formal and/or informal meetings. Every day meetings with student organization colleagues are much less common

(6% of 270), and so are the several times a year meetings (9% of 270). During formal or informal meetings, students who are members of Students Organizations have meals together.

---

## MEALS WITH RSO COLLEAGUES

FIGURE 17: HAVING MEALS WITH RSO COLLEAGUES



The data shows that the majority of students (55% of 270) have meals with their RSO colleagues several times a week, once a week or once a month. Only 7% (of 270) of students have every day meals with their RSO colleagues (Figure 17).

Many student organizations have community service incorporated in their program of activities. Our results show that 75% (of 270) of students who are members of student organizations are also involved in community service projects. The frequency with which these students get involved in community service projects is once a week (11% of 202), once a month (44% of 202) and several times a year (37% of 202). Doing community service several times a week, and every day is much less common.

## CHAPTER 7

## INTERACTIONS AND ORGANIZATIONAL CLIMATE

The survey asks students about their satisfaction with their interactions with registered student organization colleagues, coworkers and colleagues. Other questions ask whether they feel like they are valued members of the student organizations, academic departments and workplace they are part of, and whether they feel they can rely on their colleagues and organizational leaders in case they need help. We ask these questions because previous research suggests that for many individuals it is the knowledge that there are people who will support them in case they need help, rather than actual donations and help, that is most likely to reduce their likelihood of becoming food insecure (Garasky, Morton and Greder 2006).

The findings show that 13% (43 of 332) of students who responded are dissatisfied with the frequency of interaction with their student organization colleagues, while 12% (40 of 332) are dissatisfied with the quality of interaction with their student organization colleagues. 12% (of 418) of students in the sample are dissatisfied with the frequency of interaction with their classmates and 16% (of 418) are dissatisfied with the quality of interaction with their classmates. 9% (of 320) of students are dissatisfied with the frequency of interaction with their work colleagues, and 10% (of 320) are dissatisfied with the quality of interaction with their work colleagues.

15% (of 332) of students do not feel like they are valued members of the student organization they are part of. 20% (of 332) of students do not feel like they are well connected to other members of the student organization. 21% (of 332) of respondents do not agree that their student organization colleagues/friends do everything they can to support them in case they need help, while 16% (of 332) of respondents do not agree with the following statement: “the student organization leaders provide me with the necessary information to be a successful member of the organization.”

25% (of 418) of respondents do not feel like they are valued members of the academic department they are part of, while 28% (of 418) of respondent do not feel like they are well connected to the colleagues in their academic department. 30% (of 418) of students do not agree that their department colleagues/friends do everything they can to support them in case they need help, while 19% (of 418) of students disagree with the following statement: “my advisor does everything she/he can to support me in case I need help.”

7% (of 295) of students do not feel like they are valued members of the work organization they are part of, while 12% (of 295) of students do not feel like they are well connected to other colleagues in the work organization they are part of. 13% (of 295) of students do not agree that their work organization colleagues/friends do everything they can to support them in case they need help, and 8% (of 295) of students do not agree with the following statement: “the work organization leaders provide me with the necessary information to be a successful member of the organization.”

## CHAPTER 8

## STUDENTS' ACADEMIC PERFORMANCE AND HEALTH

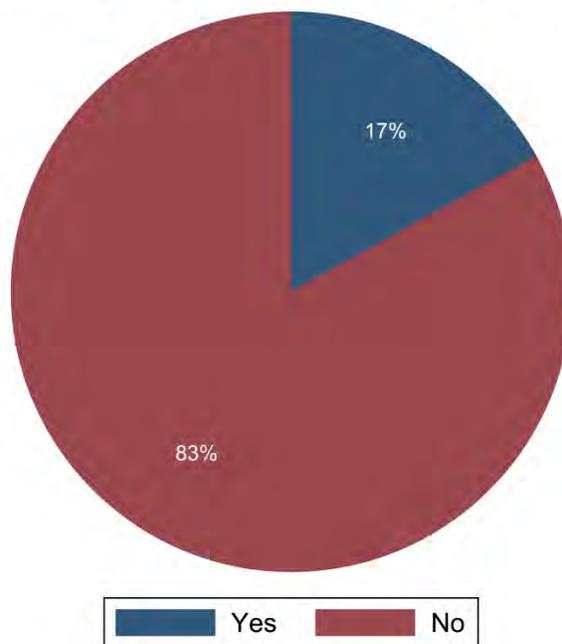
Existing research shows that food insecurity can have deleterious impacts on students' health and academic achievement. For example, Hughes et al. (2011) found that students who experienced food insecurity are more likely to report losing weight and less likely to rate their health as good and very good compared to the food secure students. In addition, Maroto et al. (2015) study reveals that food secure students have higher GPAs compared to students who are food insecure. Thus, in this survey questions about students' health and academic performance were asked.

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### HEALTH SYMPTOMS AND FOOD INTAKE

FIGURE 18: HEALTH SYMPTOMS DUE TO LIMITED FOOD INTAKE

Health Symptoms Due to Limited Food Intake  
Bodily weakness/health symptoms in the past 12 months



The results show that 17% of students experienced body weakness or other health symptoms in the past 12 months due to limited food intake (Figure 18). When asked about the frequency with which these symptoms occurred, most students (81% of 70) reported having such symptoms some months but not every month and one or

two months. 10% (of 70) of these students reported having symptoms every week, and 9% (of 70) reported having symptoms every month.

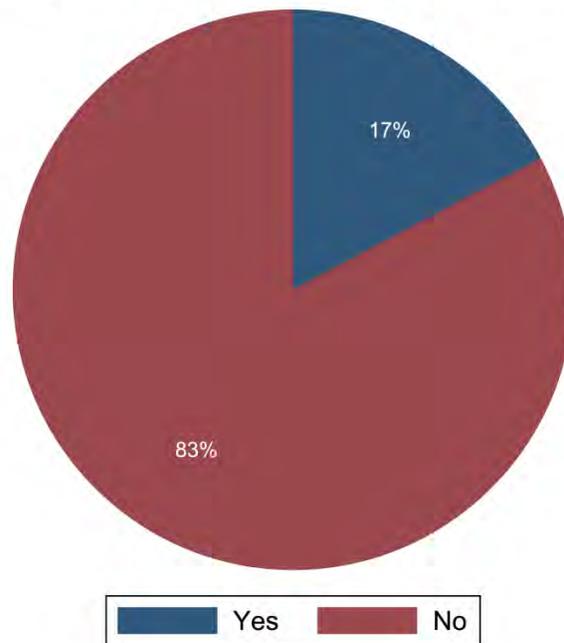
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## ACADEMIC PERFORMANCE AND FOOD INTAKE

**FIGURE 19: ACADEMIC PERFORMANCE ISSUES DUE TO LIMITED FOOD INTAKE**

### Inability to Focus on Studies due to Limited Food Intake

Inability to focus on studies in the past 12 months



17% of students also reported not being able to focus on their studies during the past 12 months because of limited food intake (Figure 19). When asked about the frequency with which the inability to focus occurred, most students (73% of 71) reported having such issues some months but not every month, and one or two months. 13% (of 71) of students had trouble focusing on studies because of limited food intake every month, and 14% (of 71) had such issues every week. 4% (of 418) of students reported having to miss class in the past 12 months because their bodies were too weak from not having enough food.

## CHAPTER 9

## CONCLUSIONS AND RECOMMENDATIONS

The food insecurity rate of 38% among students at the University of Arkansas is a worrisome finding, which warrants the University to develop initiatives that would help alleviate hunger. Having a food pantry on campus is a good way to support food insecure students who can pick up canned food and other food supplies from the food pantry during the days when it is open. Despite this high food insecurity, very few students (1%) use the on-campus food pantry and about half (46%) of students do not know that the University has a food pantry. Also, very few students in our study use social programs like SNAP (1%) or WIC (less than 1%). Therefore, the university and the Center for Community Engagement could make efforts to render the food pantry and the food programs at CCE more visible on campus. In addition, efforts to inform qualifying students how to apply for SNAP and WIC and to remove stigma surrounding the use of food assistance programs could be made.

To increase stakeholders' awareness about the severity of food insecurity among students on our campus in-depth conversations with university administrators and other community members (faculty and staff) about possible solutions to address this issue need to occur. Faculty and staff need to be brought into the conversation because they might be the ones who are noticing their students in the classroom having academic performance issues due to the lack of an adequate amount of food intake. In fact, the results in this study show that 17% of students had trouble focusing on studies because of limited food intake during the past year, and for 4% of students the intake of food was so limited that it caused body weakness, which in turn precluded them from attending classes.

Another important finding in this study is that students who work for more than 20 hours per week are more likely to be food insecure compared to all other students (work between 10 and 19 hours/week, or work less than 10 hours per week). Working longer hours per week for students is an indicator of reduced or lack of family financial support and of low socio-economic status. Students who work and study are typically employed in areas that pay minimum wage, and most times this income is insufficient to cover all expenses and to prevent students from experiencing food insecurity. Existing research suggests that students who receive financial support from their families are less likely to be food insecure and less likely to be employed (Gaines et al. 2014).

A striking difference, in terms of food insecurity levels, was found between undergraduate and graduate students. Almost half (47%) of graduate students are

food insecure versus 37% of undergraduate students who are food insecure. More than one third of graduate students are graduate assistants employed by the university. The minimum stipend for graduate assistants is \$1000/month (Graduate School) which is insufficient money for living, especially when the graduate assistant is the only income earner in the household that also includes dependents.

Another worrisome finding in this study is that in the past 12 months 11% of students were uncertain about where they would sleep at night. Previous research suggests that students whose housing situation is unstable are more likely to experience food insecurity (Freudenberg et al. 2011). While the study does not inquire about details as to why these students experienced uncertainty about a place to sleep, it is safe to assume that there exists a group of students, whose financial issues are severe enough to cause temporary lack of housing.

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## APPENDIX

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### RESEARCH METHODS

A random, stratified by gender and race sample of 3431 students (20% of the student population) was selected for this study. Because the food security questions ask about students' experiences within the past 12 months, freshmen students were not included in the study. Given that the focus of the project is to find out food insecurity rates among students at the University of Arkansas on Fayetteville campus, students who are pursuing degrees on-line and off-campus were not included in the study.

525 respondents started the survey. However, 418 respondents finished the survey, resulting in a response rate of 13%.

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### SURVEY INSTRUMENT

#### University of Arkansas Student Food Insecurity Questionnaire

##### *Student Status*

1. Please select your academic level
  - Freshman
  - Sophomore
  - Junior
  - Senior
  - Graduate
  - Law
2. What is your college?
  - Dale Bumpers College of Agricultural, Food and Life Sciences
  - Fay Jones School of Architecture
  - J. William Fulbright College of Arts and Sciences
  - Sam M. Walton College of Business
  - College of Education and Health Professions
  - College of Engineering
  - Honors College
  - Global Campus
  - Graduate School and International Education
  - School of Law
3. Are you a full-time or a part-time student?
  - Full-time
  - Part-time

##### **Housing**

*The following questions are about your housing situation. Please think about the living arrangements you have as a student when you answer these questions.*

1. Please select where you live
  - On campus
  - Off campus
2. Who do you live with most of the time?
  - Roommate/s
  - Parents
  - Siblings
  - Alone
  - Other, (please explain)
3. In the past 12 months have you been unsure of where you will sleep at night?
  - Often
  - Sometimes
  - A couple of times
  - Never

### **Food Accessibility**

*The next questions are about food accessibility.*

1. Thinking about your nearest place to buy food, how easy or difficult would it be to get there from your home by walking, riding your bike, or taking the bus?
  - Very easy
  - Fairly easy
  - Fairly difficult
  - Very difficult
2. Thinking about the places where you buy food, how much variety of food do they provide?
  - More than enough
  - Enough
  - Not enough
3. Thinking about the money you have to spend on everyday things, like food, would you say this is
  - More than enough
  - Enough
  - Not enough

### **Employment Status**

*The following questions are about your employment status.*

1. Are you employed?
  - Yes
  - No

*Please answer questions 2 and 3 only if you answered “yes” to question 1. If you answered “no” to question 1, skip to “financial resources” section.*

2. Where do you work?
  - On Campus
  - Off Campus
3. How many hours/week do you work:

**Financial Resources**

*The next set of questions are about your financial resources*

1. What financial resources do you use to pay for your studies (please select all that apply)?
  - Parental support
  - Own Job
  - Scholarship
  - Fellowship
  - Financial Aid/Student Loan
  - Other Sources (please explain)
2. What financial resources do you use for daily food purchases (please select all that apply)?
  - Parental support
  - Own job
  - SNAP/food stamps
  - WIC/women with infants and children
  - Food pantry
  - Other Sources (please explain)
3. If ever you don't have enough money to buy food who would ask for help (please check all that apply)?
  - Parents
  - Relatives (other than parents)
  - Friends
  - Roommates
  - School classmates
  - Professors
  - Other (please explain) \_\_\_\_\_
4. How comfortable would you feel asking family members for financial support with your food needs?
  - Very uncomfortable
  - Uncomfortable
  - Comfortable
  - Very comfortable
5. How comfortable would you feel asking non-family members for financial support with your food needs?
  - Very uncomfortable
  - Uncomfortable
  - Comfortable
  - Very comfortable

## Relationships with Friends and Family Members

*Now, please answer some questions about your family members, and friends.*

1. How many close friends (people you see or have daily contact with) do you have? \_\_\_\_\_
2. Some people have a person that they think of as their best friend, while other people do not. What about you, do you have a best friend? (If "several" answer "yes")
  - Yes
  - No

*Please answer questions 3-5 only if you answered "yes" to question 2. If you answered "no" to question 2, skip to question 6.*

3. How often do you see your best friend? If you have more than one, please tell us about the friend you see most often.
  - He/She lives with me
  - Every day
  - Several times a week
  - Once a week
  - At least once a month
  - Several times a year/less often
  - Never or hardly ever
4. And how often do you have any other contact with this friend, either by telephone, e-mail, text message or Facebook?
  - Every day
  - Several times a week
  - Once a week
  - At least once a month
  - Several times a year/less often
  - Never or hardly ever
5. How often do you and your best friend eat together at your house or theirs?
  - Every day
  - Several times a week
  - Once a week
  - At least once a month
  - Several times a year/less often
  - Never or hardly ever
6. How often do you and any of your family members eat together?
  - Every day
  - Several times a week
  - Once a week
  - At least once a month
  - Several times a year/less often
  - Never or hardly ever

## Relationships with Colleagues and Involvement in Campus Community

*Now, please answer the following questions about your school colleagues, student organization colleagues, resources for students and the campus community overall.*

1. Are you a member of student groups/organizations (e.g. registered student organizations, greek organizations, honors clubs) outside the classroom?  
 Yes  
 No

*Please answer questions 2-6 only if you answered "yes" to question 1. If you answered "no" to question 1, skip to question 7.*

2. How many student groups/organizations are you a member of?
3. How often do you have formal/informal meetings with your student organization colleagues?  
 Every day  
 Several times a week  
 Once a week  
 At least once a month  
 Several times a year/less often  
 Never or hardly ever
4. As part of your student organization membership do you get involved in community service projects?  
 Yes  
 No
5. If Yes, How often do you get involved in community service projects?  
 Every day  
 Several times a week  
 Once a week  
 At least once a month  
 Several times a year/less often  
 Never or hardly ever
6. How often do you and other members of students' organizations have meals together?  
 Every day  
 Several times a week  
 Once a week  
 At least once a month  
 Several times a year/less often  
 Never or hardly ever
7. Do you use or have you used the following academic resources (please check all that apply)?  
 Enhanced Learning Center/Center for Learning and Student Success  
 Quality Writing Center  
 Off Campus Connections  
 Center for Educational Access  
 U of A Cares  
 Veterans Resource and Information Center  
 CAPS  
 Other (please explain) \_\_\_\_\_

8. Please state your level of satisfaction with the services provided by the following academic resources:

<b>Academic Resources</b>	<b>Very dissatisfied</b>	<b>Dissatisfied</b>	<b>Satisfied</b>	<b>Very satisfied</b>	<b>Not applicable</b>
a. Enhanced Learning Center	1	2	3	4	5
b. Quality Writing Center	1	2	3	4	5
c. Off Campus Connections	1	2	3	4	5
d. Center for Educational Access	1	2	3	4	5
e. U of A Cares	1	2	3	4	5
f. Veterans Resource and Information Center	1	2	3	4	5
g. CAPS	1	2	3	4	5

9. In the past 12 months how many on campus social events did you attend?

10. In the past 12 months how many social events did you attend in your academic department?

### **Organizational Climate**

*These next questions are about how you feel about being a member of your organization.*

1. Please state your level of satisfaction with the following components of your student life:

<b>Relationships with Colleagues/Classmates</b>	<b>Very dissatisfied</b>	<b>Dissatisfied</b>	<b>Satisfied</b>	<b>Very satisfied</b>	<b>Not applicable</b>
a. Frequency of interaction you have with your student organization colleagues	1	2	3	4	5
b. Quality of interaction you have with your student organization colleagues	1	2	3	4	5
c. Frequency of interaction you have with your classmates	1	2	3	4	5

d. Quality of interaction you have with your classmates	1	2	3	4	5
e. Frequency of interaction you have with your work colleagues	1	2	3	4	5
f. Quality of interaction you have with your work colleagues	1	2	3	4	5

2. Please state your level of agreement with the following statements:

<b>Organizational Climate</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Not applicable</b>
a. I feel like I am a valued member of the student organization I am part of	1	2	3	4	5
b. I feel like I am well connected to other members of the student organization I am part of	1	2	3	4	5
c. My student organization colleagues/friends do everything they can to support me in case I need help	1	2	3	4	5
d. The student organization leaders provide me with the necessary information for me to be a successful member of the organization	1	2	3	4	5
e. I feel like I am a valued member of the academic department I am part of	1	2	3	4	5
f. I feel like I am well connected to my colleagues in my academic department	1	2	3	4	5
g. My academic department colleagues/friends do everything they can to support me in case I need help	1	2	3	4	5
h. My advisor does everything she/he can to support me in case I need help	1	2	3	4	5

3. Please state your level of agreement with the following statements:

<b>Organizational Climate</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly agree</b>	<b>Not applicable</b>
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a. I feel like I am a valued member of the work organization I am part of	1	2	3	4	5
b. I feel like I am well connected to other members of the work organization I am part of	1	2	3	4	5
c. My work organization colleagues/friends do everything they can to support me in case I need help	1	2	3	4	5
d. The work organization leaders provide me with the necessary information for me to be a successful member of the organization	1	2	3	4	5

### Food Preparation Skills and Resources

*Now, we would like to ask you a couple of questions about your food preparation skills and the access you have to food preparation resources.*

- Which best describes your confidence in completing each of the tasks listed? (replace with) Please rate your confidence level regarding the following statements:

<b>Confidence to complete task</b>	<b>Extremely confident</b>	<b>Very confident</b>	<b>Moderately confident</b>	<b>Not very confident</b>	<b>Not at all confident</b>
a. I can cook a nutritious meal	1	2	3	4	5
b. I can cook a meal in a short amount of time	1	2	3	4	5
c. I can cook a nutritious meal without spending a lot of money	1	2	3	4	5
d. I can follow a recipe	1	2	3	4	5

- Rate your skills or resources:

<b>Cooking skills and Resources</b>	<b>Very adequate</b>	<b>Adequate</b>	<b>Inadequate</b>	<b>Very inadequate</b>
a. Cooking skills	1	2	3	4
b. Money to buy food	1	2	3	4
c. Appliances for food preparation	1	2	3	4
d. Food selection in local stores	1	2	3	4

e. Time available to prepare food

1

2

3

4

### Availability of Food

*The following questions are about the availability of food in the past 12 months. Please read the statements carefully and then select the option that is closest to your experience.*

1. "I worried whether my food would run out before I got money to buy more." Was that often true, sometimes true, or never true for you in the last 12 months?
  - Often true
  - Sometimes true
  - Never true
  - DK or Refuse to answer
  
2. "The food that I bought just didn't last, and I didn't have enough money to get more." Was that often true, sometimes true, or never true for you in the last 12 months?
  - Often true
  - Sometimes true
  - Never true
  - DK or Refuse to answer
  
3. "I couldn't afford to eat balanced meals." Was that often true, sometimes true, or never true for you in the last 12 months?
  - Often true
  - Sometimes true
  - Never true
  - DK or Refuse to answer
  
4. In the last 12 months, since last (name of current month) did you ever cut the size of your meals or skip meals because there wasn't enough money for food?
  - Yes
  - No
  - DK

*If "yes" to the above question,*

- a. How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?
  - Almost every month
  - Some months but not every month
  - Only 1 or 2 months
  - DK
  
5. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?
  - Yes
  - No
  - DK
  
6. In the last 12 months, did you lose weight because there wasn't enough money for food?

- Yes
- No
- DK

7. In the last 12 months, did you ever not eat for a whole day because there wasn't enough money for food?

- Yes
- No
- DK

*If "yes" to the above question,*

a. How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?

- Almost every month
- Some months but not every month
- Only 1 or 2 months
- DK

### **University of Arkansas Full Circle Food Pantry**

*Now we would like to ask you a couple of questions about the University of Arkansas Full Circle Food Pantry*

1. Do you know that the university has a food pantry?

- Yes
- No

2. In the past 12 months have you used the services provided by the food pantry?

- Yes
- No

*If "yes" to the above question,*

a. There are many students, faculty and staff at this university who use the food pantry, how comfortable are you to reveal to people you know, except family, that you are using the food pantry?

- Very uncomfortable
- Uncomfortable
- Comfortable
- Very comfortable

### **Health and Academic Performance**

*The following questions are about your health and academic performance in the past 12 months. Please read the statements carefully and then select the option that is closest to your experience.*

1. In the past 12 months have you experienced bodily weakness and/or other health symptoms because of limited food intake?

- Yes
- No

*If "yes" to the above question,*

a. How often did that happen?

- Every week
  - Every month
  - Some months but not every month
  - Only 1 or 2 months
2. In the past 12 months did you experience an inability to focus on your studies because of limited food intake?
- Yes
  - No

*If “yes” to the above question,*

- a. How often did that happen?
- Every week
  - Every month
  - Some months but not every month
  - Only 1 or 2 months
3. In the past 12 months did you miss a class because your body was too weak from not having enough food?
- Yes
  - No

*If “yes” to the above question,*

- a. How often did that happen?
- Every week
  - Every month
  - Some months but not every month
  - Only 1 or 2 months

### **Demographic Questions**

1. What is your sex?
- Male
  - Female
2. What is your race or ethnicity?
- White
  - Black
  - Hispanic
  - Native American
  - Asian/Pacific Islander
  - Biracial
  - Multiracial
  - Other
3. What is your citizenship status?
- US Citizen
  - Permanent resident
  - International student (F1 Visa)

4. What is your marital status?
- Married or living with partner in a committed relationship
  - Single
  - Divorced or separated
  - Widowed
5. Do you have children?
- Yes
  - No
- a. If answered “yes” to previous question, for how many children do you and your spouse/partner provide financial support?
6. What is your religious affiliation?
- Christian, non-Catholic
  - Catholic
  - Jewish
  - Muslim
  - Hindu
  - Buddhist
  - Other (please specify) \_\_\_\_\_
  - None
  - Don't know
7. Are you (please circle one):
- Heterosexual
  - Homosexual
  - Bisexual
  - Questioning/Not sure
8. Do you have (please circle one)?
- A physical disability
  - A diagnosed psychological disability
  - None of the above

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IRB APPROVAL

October 21, 2015

MEMORANDUM

TO: Rodica Lisnic

FROM: Ro Windwalker  
IRB Coordinator

RE: New Protocol Approval

IRB Protocol #: 15-09-168

Protocol Title: *University of Arkansas Student Food Insecurity: Predictors, Consequences and Proposed Solutions*

Review Type:  EXEMPT  EXPEDITED  FULL IRB

Approved Project Period: Start Date: 10/21/2015 Expiration Date: 10/20/2016

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Your protocol has been approved by the IRB. Protocols are approved for a maximum period of one year. If you wish to continue the project past the approved project period (see above), you must submit a request, using the form *Continuing Review for IRB Approved Projects*, prior to the expiration date. This form is available from the IRB Coordinator or on the Research Compliance website (<https://vpred.uark.edu/units/rscp/index.php>). As a courtesy, you will be sent a reminder two months in advance of that date. However, failure to receive a reminder does not negate your obligation to make the request in sufficient time for review and approval. Federal regulations prohibit retroactive approval of continuation. Failure to receive approval to continue the project prior to the expiration date will result in Termination of the protocol approval. The IRB Coordinator can give you guidance on submission times.

**This protocol has been approved for 6,000 participants.** If you wish to make *any* modifications in the approved protocol, including enrolling more than this number, you must seek approval *prior to* implementing those changes. All modifications should be requested in writing (email is acceptable) and must provide sufficient detail to assess the impact of the change.

If you have questions or need any assistance from the IRB, please contact me at 109 MLKG Building, 5-2208, or [irb@uark.edu](mailto:irb@uark.edu)