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Hunger & Homelessness at Worcester State University

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Executive Summary

More than one of every three of our students are hungry. Take that in for a second. A figure like that should signal that we have a crisis at Worcester State University, like many schools across the country. It gets worse. Fifteen percent of WSU students experience housing insecurity, and 3% are homeless. Polls from across the United States, at both public and private institutions, at two-year and four-year colleges and universities, suggest that a lack of reliable access to sufficient quantities of nutritious food — the definition of food insecurity — is endemic, and that students are having an increasingly tough time finding affordable and reliable housing.

This report, written collaboratively by WSU students and faculty, analyzes the prevalence of food and housing insecurity at Worcester State University. It is based on a survey completed by a random sample of 682 undergraduate and graduate students in 2017. The survey tool itself is derived from the model developed by the Wisconsin HOPE lab (now The Hope Center), which was recently used to gather data on food and housing insecurity in Massachusetts as well as across the United States. In the spirit of Engaged Citizenship, one of WSU’s core values, this project is a student-driven movement to address basic needs insecurity.

This report contributes to a growing body of research into basic needs insecurity in higher education. Basic needs refer to adequate access to food, water, shelter, and safety. We acknowledge that while studies on hunger at universities are relatively new, the problems of hunger and housing insecurity in the United States have been well studied and researched for decades. Echoing the research, we see these dilemmas at WSU as part of broader trends that intersect in the lives of college students: college is increasingly expensive, housing in-

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This report would not have been possible without the contribution of Joshua O’Floinn who, as a graduate student in nursing, put together the survey tool and oversaw data collection and initial analysis, and Page Maryanek who, on the verge of getting her bachelors degree, provided initial methodological input and immense positive energy.

Finally, we are grateful to the many students who have approached the Urban Action Institute over the years to share their passion for food justice and the well-being of their fellow students. This project stems from their drive to see a hunger-free Worcester State University.

Table of Contents

Executive Summary	2
Introduction	4
Basic Needs Insecurity in Higher Education	6
Findings From WSU Survey	8
Addressing Food and Housing Insecurity	16
Recommendations	18
Conclusion	20

creasingly unaffordable, and wages in real terms have been largely stagnant for the majority of American workers for the last forty years. As well, the burden of covering the cost of a public college education is shifting from the state to the individual student and their family, as evidenced by the rise in student loans. We see the struggle to meet basic needs as a consequence of these factors.

This report includes the following alarming findings:

- At Worcester State, 34% percent of students indicated that they had low to very low food security due to lack of food, or access to food.
- Twenty-seven percent of students couldn't afford to eat a balanced meal in the last month and 25% of students said the food they bought just didn't last them as long as they needed.
- Among the 15% of WSU students who were housing insecure, nearly half reported that over the previous year they were unable to pay the full amount of their utilities and a third indicated that they were unable to pay their rent or mortgage payments.
- Among the 3% of students who are homeless, the majority either didn't know where they were going to sleep or slept in their cars, abandoned buildings or other locations not meant to serve as regular housing.

Like elsewhere across the country, basic needs insecurity at WSU is distributed unequally:

- White students were significantly less likely to be food insecure than students who identified as Black, Hispanic/Latino, or Asian.
- Close to half of students identifying as Black or Asian reported either low or very low levels of food security
- Nearly as many students identifying as Hispanic/Latino also reported either low or very low levels of food security, while significantly more students identifying as Hispanic/Latino reported being housing insecure.
- Also showing significantly higher rates of basic needs insecurity are military students, i.e. those who report currently serving or having served in the Armed Forces, Military Reserves or National Guard. Sixty-seven percent of Military students report being food insecure, 58% report being housing insecure, and 17% report being homeless.
- Other disparities emerged between full-time and part-time students, between student parents and non-parents, and between first-generation students and those from college-educated families.

These findings resonate with data collected elsewhere in Massachusetts and across the United States, where in both cases approximately one-third of students reported experiencing either low or very low food security as well as housing insecurity. In addition, students of color and LGBTQ students in the US tend to experience basic needs insecurity at a disproportionate rate.

What does this mean for our students? First, WSU students dealing with food and housing security are more likely to encounter physical and mental health problems. Even marginal levels of food insecurity have been tied to chronic yet costly health problems. This translates directly to academic achievement, and this study shows that students battling hunger are significantly more likely to have lower GPAs.

Based on the data, this study provides a series of recommendations to the WSU Administration, Chartwells, Student Government, the Commonwealth of Massachusetts, Alumni Affairs, and University Advancement. These recommendations can be found on page 18.

Introduction

This report analyzed the prevalence of food and housing insecurity at Worcester State University (see definitions below). Based on a sample of 682 undergraduate and graduate students, the data shows that students at Worcester State University, like other four-year schools across the United States, face food and housing insecurity in significant numbers. Close to a third of our students struggle with hunger, and it is clear that here, as well as throughout higher education, the lack of access to sufficient quantities of healthy food gets in the way of student academic success.

The issue of student hunger goes beyond the “ramen” narrative: college students resorting to microwaveable bowls of noodles devoid of nutrition. The food insecurity that we’re talking about here consists of students skipping meals because they don’t have enough money or eating less for each meal to make ends meet. Student hunger is also not about irresponsible youth who can’t budget properly and running out of food as a consequence. Data shows that this is not a sudden, short-term emergency, but rather a slow-burning manifestation of the struggles our country’s college students must wage at increasing levels just to get their education. Nearly 40% of enrolled college and university students nationally are above 25 years old and thus do not fit the “traditional” profile of a younger student, and roughly 40% of undergraduate students work at least 30 hours a week.¹ Their hunger has systemic roots and, according to the Massachusetts Department of Higher Education, the basic needs insecurities of our college students are worsening.² This report, therefore, represents an urgent call for systemic solutions to address this issue on campus. To this end, we include a set of recommendations (on page 18) that we hope will inform ongoing efforts to support our student body.

The survey on which this report relied to generate its data comes from an adapted version of the Wisconsin HOPE Lab survey tool that has informed recent studies on hunger and homelessness across the United States, and most recently in Massachusetts. Data from WSU’s study fed into the statewide survey which was commissioned by the Massachusetts Department of Higher Education and implemented during the 2016-2017 academic year.



This report was written collaboratively by faculty and students concerned about the state of student hunger on campus. During the 2016-2017 academic year, multiple students approached the Urban Action Institute, which runs the Hunger Outreach Team, a SNAP advocacy program on campus. They were eager to open a food pantry on campus. Together we decided to implement a survey to ascertain the scope of hunger on campus and the need for a food pantry. Shortly thereafter, we received the call from Commissioner Carlos Santiago for public universities in Massachusetts to participate in the Wisconsin HOPE Lab’s statewide survey to measure student food and housing insecurity. In the year and a half since this effort began, some students have graduated or moved on and others have come on board, but this project remains fundamentally a student-driven movement to address food insecurity at our university. In short, we see our project as an embodiment of WSU’s mission: students cannot grow intellectually when they are hungry or homeless.

Objectives

This report has three primary objectives, which reflect the order of the subsequent sections of this report:

1. Consider the problem of food and housing insecurity at WSU in the context of these dilemmas in higher education across the United States, and especially in Massachusetts;
2. Present findings from WSU's survey on food and housing insecurity; and
3. Offer an action-plan for how WSU and the broader state higher education community can aggressively work to ensure it is in a position to best support students struggling with basic needs insecurity.

Methods

This report is based on a quantitative study of the Worcester State University student population, both undergraduate and graduate. The data comes from a random sample of 682 students who completed the survey in an online format in April, 2017. This included 554 undergraduate students and 110 graduate students. (*Note: While 682 filled out this survey, only 664 completed sections allowing for coding as graduate or undergraduate.*) This sample reflects just under a 10% (9.97) response rate of the WSU student population. The survey team recruited students via WSU student listservs and a series of email blasts from Student Affairs during the spring semester of 2017.³ Students were also offered incentive in the form of gift cards to be randomly distributed to those who responded to the full survey and who opted to add their contact information.⁴

The survey itself is derived from the Wisconsin Hope Lab's tool for measuring food and housing insecurity. Specifically, we relied on a version of their tool featuring a six-item measure of food insecurity developed by the US Department of Agriculture.⁵ Food insecurity is the state of being without reliable access to a sufficient quantity of affordable, nutritious food.⁶ Housing security, on the other hand, is determined by reliability and stability with regard to shelter, including the ability to cover costs associated with housing, quality of housing, how crowded the housing is, and how frequently individuals must move. We chose the Wisconsin HOPE Lab tool for our study for two primary reasons: first, this survey has been used successfully in the United States in recent years in multiple studies on the national, state, and individual institutional level, reflecting a high level of reliability. The survey enables researchers to analyze food and housing security on college campuses, and to analyze such variables in terms of race, sex, ethnicity, employment status, and household make up. The survey also allows for analysis of the impact of food/housing insecurity on students' ability to succeed at school as well as student access to support resources.

Second, during our process of research design, it became clear that the Massachusetts Department of Higher Education was likely to rely on the same tool in an upcoming statewide survey and we hoped that our data could feed into the broader effort. Small revisions were made to the survey, primarily to include a set of questions at the end more specifically related to the possibility of opening a food pantry on campus.

Co-authors conducted a quantitative analysis of the survey data. Methods of our analysis consisted of running z-tests of equality of two proportions, creating linear regression models, and testing for correlation. The goal of the analysis was to determine how different demographics at Worcester State University were affected by food insecurity, housing insecurity, and homelessness. The z-test of equality of two proportions was used to test different student demographics, such as race, student status, age, military, and other groups. It was also beneficial to understand how GPA was affected by food insecurity, so a linear regression model was created in order to predict GPA based on student food security levels. We also tested to see if GPA and food insecurity had any positive or negative correlation. These results are displayed through the charts and tables presented in Findings section, below.

Basic Needs Insecurity in Higher Education

Worcester State University is far from alone in struggling with the problem of student hunger and homelessness. Over the last several years, the issue of basic needs insecurity on college campuses has emerged as both prevalent and urgent. The fact that this issue has only recently gained the spotlight belies the fact that hunger and housing insecurity have plagued college students for much longer; students are increasingly challenged to make ends meet as they pay for college, a cost that has increased 213% in the last 20 years (with prices adjusted to 2017 dollars), according to the College Board, while wages have effectively remained stagnant in real terms since the 1970s.⁷ As the cost of living has increased, students have had an increasingly tough time balancing school, work, housing, and other obligations.

Low or very low levels of food security plague more than a third of college students in the United States. According to Goldrick-Rab and colleagues in 2018 in a study of 43,000 students at 66 higher education institutions in 20 states—including more than 20,000 at 35 four-year institutions—36% of students reported experiencing food insecurity in the 30 days prior to the survey. Thirty-seven percent of students at two-year universities and 29% at four-year universities reported that the food they purchased “just didn’t last” and they had no money for more. This includes students who reported that they “couldn’t afford to eat balanced meals,” or “worried that [their] food would run out before [they] got money to buy more.” Additionally, 6% of students at four-year colleges reported that in the previous 30 days they went a whole day without eating at all because they lacked money.

This compares with another recent survey of basic needs insecurity of higher education institutions in Massachusetts coordinated by the Hope Lab, which surveyed 15 community colleges and eight four-year institutions.⁹ This survey found that 33% of students at four-year institutions reported either low or very low food insecurity.

In terms of housing, the Hope Lab's national survey found that 36% of students at four-year institutions experienced housing insecurity over the last year; 22% of students were housing insecure in the 30 days previous to the survey. In addition, close to one in ten students at universities were homeless, with higher numbers reported at community colleges. There was significant overlap between those reporting hunger insecurity and those who were housing insecure: 16% of four-year students reported both. In the Massachusetts survey, 32% of four-year students were housing insecure over the last year; 20% in the previous 30 days, and 10% were homeless over the previous year. The Hope Lab’s analysis suggests one of the most common challenges students face is making rent and covering the cost of utilities. Students who had struggled with homelessness reported that they slept in cars, abandoned buildings, or other places not meant to serve as shelter more often than they sought out a bed at a shelter.

Balancing the burdens of schoolwork and paying for school, even students on a meal plan report struggling with hunger. In a 2016 study of nearly 4,000 students across 12 states, attending eight community colleges and 26 four-year institutions, 43% of those enrolled in a meal plan reported that they still experienced food insecurity.¹⁰ This quote challenges a common misconception that if students are on a meal plan then they should not have to worry about food insecurity. The meal plan is able to offer many students adequate food while they are on campus, though for students with a more limited plan, it is possible to run out before the end of the year, and for commuter students, there is the possibility that they do not have adequate food at home. School holidays, breaks, and summer vacation can also be a time of scarcity for students who rely on the meal plan to avoid food insecurity. In Dubick *et. al.* (2016), 56% of food insecure students worked a paying job; 38% of those worked 20 hours or more per week.

According to multiple studies, hunger and housing insecurity tend to disproportionately impact women, students of color, LGBTQ students, military students, student parents, and, generally, first-generation students.¹¹ Among other factors, this reflects the material consequences of social inequality, and corresponds to national data on housing and food security.¹²

Food Insecurity and Academic Achievement

The prevalence of food insecurity in two and four-year colleges and universities is clearly an indictment of the US's shrinking safety net for low-income students and a damning illustration of how unaffordable college has become for many. Importantly, it also speaks to questions of general health and academic achievement. Many food insecure college students are affected by physical and mental challenges. For example, the Hope Lab reports that 11% of respondents from four-year universities reported that they had lost weight because there was not enough money for food. Chronic food insecurity weakens the immune system, has been linked to higher instances of asthma, and impairs one's range of activity.¹³ Referring to emotional health, Payne-Sturgis and colleagues note in a 2018 study of a mid-Atlantic public university, "Food insecure students...reported...frequent depression symptoms (little interest, feeling down, feeling tired, poor appetite, and feeling bad about oneself) and that they experienced disruptions in academic work as a result of depression symptoms."¹⁴ The Food Research and Action Center reports that even marginal food insecurity is linked to some of the US's most common and costly health problems, including diabetes, hypertension, and heart disease.¹⁵ They also note that suicidal ideation is more common in those dealing with food insecurity.



Poor diet and the lack of funds to buy sufficient food impacts health and academic performance. In a 2015 study of 600 students in community college, Maroto and colleagues found that food insecure students "are more likely to be in a lower GPA category (2.0–2.49) than the highest GPA category (3.5–4.0)."¹⁶ Such findings speak to the strong association that has been found between food insecurity and lower cognitive performance in adults and academic and psychosocial development in school-aged children.¹⁷

Along with reported lower GPAs, food insecure students also experience disruptions in college enrollment and delays in graduating, signaling problems with retention. Studies have shown that food insecure students have a harder time attending class regularly (in part due to the range of health consequences of hunger).¹⁸ In 2015, Silva and colleagues conducted a survey of 390 students at UMass Boston and found that "Those who had been homeless were 13 times more likely to have failed courses and were 11 times more likely to have withdrawn or failed to register for more courses. Students who had experienced severe [food insecurity] were nearly 15 times more likely to have failed courses and were six times more likely to have withdrawn or failed to register for more courses."¹⁹ As the present study shows, the Worcester State University community is not immune to such problems. The following section illustrates that there were significant numbers among our students who were hungry and housing insecure, and that their academic performance is suffering.

Findings from WSU Survey on Hunger & Homelessness

To better facilitate the comparison between which groups will be more or less inclined to identify as food insecure, housing insecure or homeless; the table below shows the demographics of Worcester State Students who responded to the survey.

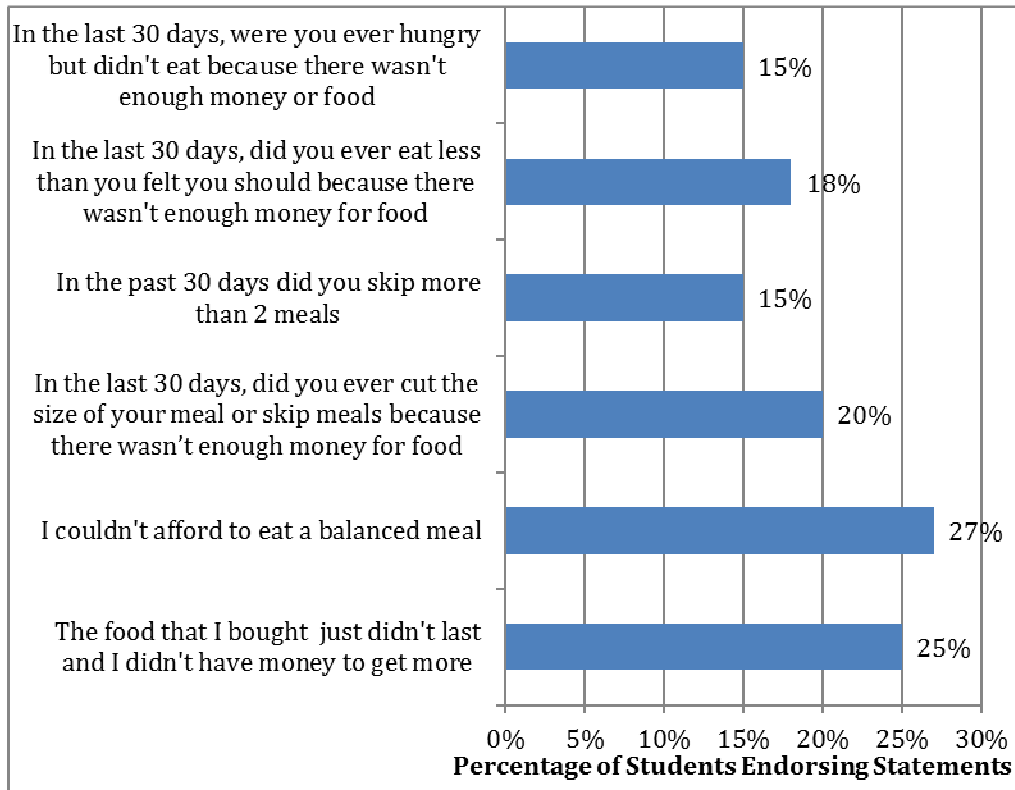
Table 1: Demographics

Sex	
Male	21%
Female	79%
Age	
18-24	70%
25-34	16%
35 and over	14%
Race	
White	59%
Black	5%
Hispanic	8%
Asian	5%
Other	2%
Military Service	
Military	2%
Non Military	98%
Student Status	
Full Time	82%
Part Time	18%
Parental Status	
Parent	14%
Non-Parent	86%
First Generation	
First Generation	20%
Second Generation (or beyond)	80%

Food Insecurity

As chart 1 below shows, 27% of students couldn't afford to eat a balanced meal and 25% of students indicated that the food they bought just didn't last them as long as they needed. Using the information gathered from the survey responses, a scale was created to measure students' food security following an approach used by the Hope Lab. Students were given 1 point per question they identified with and 0 for questions they did not. Also, for the numbers of meals skipped in a month, any student who skipped three or more meals in the past month was given 1 point. Those points were then summed to create a Food Security Scale from 0-6. On this scale 0 is little to no food insecurity, and 6 is the highest level of food insecurity.

Chart 1: Percentage of Responses per Question



With this scale we are able to define the levels of Food Insecurity. A score of 0-1 is defined as High Food Security. A score of 2-4 is Low Food Security, and a score of 5-6 is Very Low Food Security. The distribution of these levels for Worcester State University students is presented below in Table 2. For this analysis, having low food security or very low food security meant being food insecure. Altogether, 34% of students indicated that they have low to very low food security due to lack of food, or access to food.

Table 2: Distribution of food security among WSU students

	High Food Security	Low Food Security	Very Low Food Security	Total
Count	338 (66%)	94 (18%)	82 (16%)	514 (100%)

To go further in this investigation, it was important to analyze food security across a variety of demographic variables, including race and ethnicity to determine whether food insecurity at WSU is distributed unequally, as it is elsewhere in the United States. Table 3 below shows the percentages for food security by race and ethnicity. The proportion of food insecure White students was compared to that of each other racial demographic. The z-test of equality of two proportions was used and the data provided evidence that the proportion of White students who were food insecure was less than the proportion of students of all other races who are food insecure.

Table 3: Food Security and Race

	High Food Security	Low Food Security	Very Low Food Security	Total
White	275 (68.4%)	64 (15.9%)	56 (13.9%)	402+ (100%)
Black	16* (45.7%)	8 (22.9%)	9 (25.7%)	35+ (100%)
Hispanic	26* (49%)	13 (24.5%)	12 (22.6%)	53+ (100%)
Asian	15* (45.5%)	9 (27.3%)	8 (24%)	33+ (100%)
Other	4*** (16.67%)	7 (29%)	5 (20.8%)	24+ (100%)

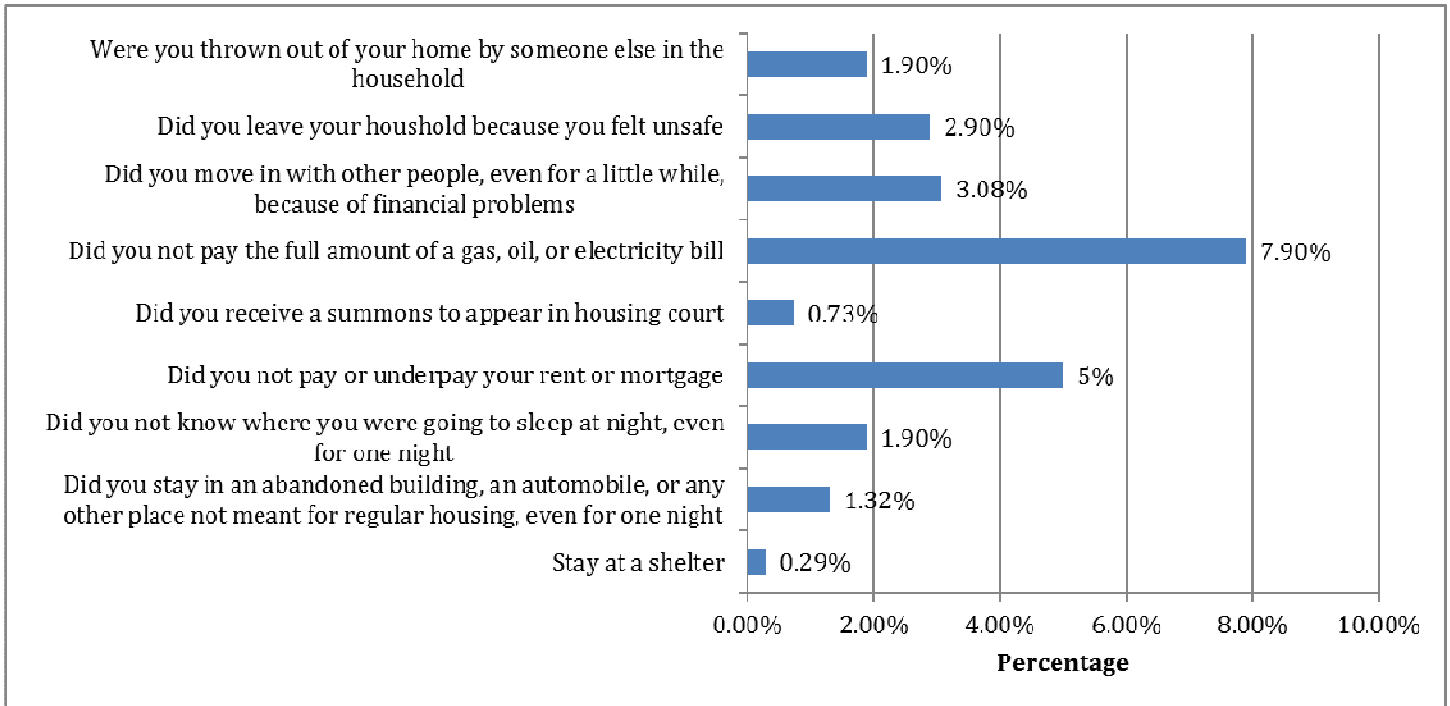
+Some individuals were missing relevant survey responses
 ***Significant at the .001 level
 **Significant at the .01 level
 *Significant at .05 level

As Table 3 tells us, there were important disparities along racial/ethnic lines when it came to food insecurity. Nearly 49% of students identifying as Black; 47% of those identifying as Hispanic; and 51% of those identifying as Asian experience either low or very low food security.

Housing Insecurity

Housing Insecurity can involve not paying bills, being thrown out or leaving one’s residence for safety issues, and being homeless. Students who responded to one or more of these questions are identified as being housing insecure, and the overall measure of these responses can be seen in Table 4 below. One of the most common issues regarding housing insecurity is students being unable to pay the full amount of their gas, oil, or electric bill, with almost 8% of respondents having had this happen. The data also shows that 5% of students were unable to pay their rent or mortgage payments.

Chart 2: Housing Insecurity Response Questions



To better understand how these questions translate to housing insecurity within the student population at Worcester State University, the distribution of students who identified with housing insecurity is displayed in Table 4 below. According to the results, 15% said that they had experienced some sort of housing insecurity in the past 12 months.

Table 4: Housing Insecurity Distribution

	Not Housing Insecure	Housing Insecure	Total
Count	579 (85%)	103 (15%)	682 (100%)

To assess the demographics of housing insecurity, a z-test of equality of two proportions was used to analyze students with housing insecurity across race and ethnicity lines. The distribution of this data is shown in Table 5 below. Similar to the comparison regarding race and food security, the proportion of White students who were housing insecure was tested against the proportion of students of different racial backgrounds who were also housing insecure. The tests show that the proportion of students identifying as White who are housing insecure is significantly less than the proportion of students identifying as Hispanic who were housing insecure. Also the proportion of students identifying as White who were housing insecure is less than the proportion of students identifying as Other who were housing insecure.

Table 5: Housing Insecurity and Race

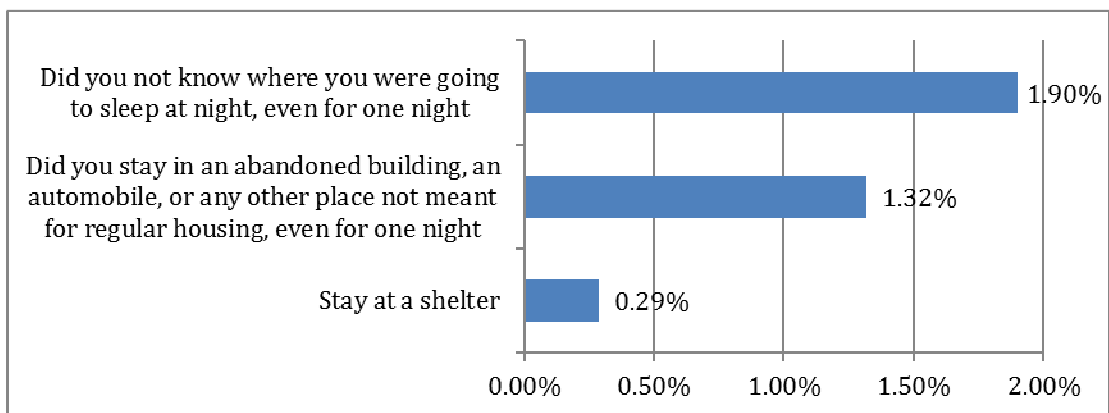
	Housing Insecure	Total
White	70 (17%)	402 (100%)
Black	6 (17%)	35 (100%)
Hispanic	18* (34%)	53 (100%)
Asian	7 (21%)	33 (100%)
Other	9*** (53%)	17 (100%)

***Significant at the .001 level
 **Significant at the .01 level
 *Significant at .05 level

Homelessness

Homelessness indicates that a student has stayed at a shelter or an abandoned building within the past twelve months, or that they did not know where they were going to sleep at night at some point in the past year. If a student indicated they have experienced at least one of these things, they were determined to be homeless. In order to better understand how Worcester State University students are affected by these issues, the percentages of each question are displayed below in Chart 3. Almost 2% of the students who responded to the survey did not know where they were going to sleep at night. Staying in an abandoned building or any other place not meant for housing occurred less often with over 1% of students identified as having done so.

Chart 3: Responses to Homelessness Questions



The homelessness distribution of Worcester State University students is presented in Table 6, showing that 3% of students identified with being homeless.

Table 6: Homeless Distribution

	Non-Homeless	Homeless	Total
Count	664 (97%)	18 (3%)	682 (100%)

It is important to see that being homeless is more common within certain racial demographics. These distributions can be seen below in table 7. Using the same z-test as earlier, we could determine that the proportion of White students who were homeless was significantly less than the proportion of students who identified as Hispanic who were homeless. Similarly, we can see that the proportion of students who identified as White who were homeless was significantly less than the proportion of students who identified as Other who were homeless.

Table 7: Homelessness and Race

	Homeless	Total
White	11 (3%)	402 (100%)
Black	1 (3%)	35 (100%)
Hispanic	5* (9%)	53 (100%)
Asian	0 (0%)	33 (100%)
Other	4*** (24%)	17 (100%)

***Significant at the .001 level

**Significant at the .01 level

*Significant at .05 level

GPA

The issue of food security within the student population is important when referencing GPA. First, let's look at the distribution of student grades, which is represented in Table 8. This shows that 52% of students reported an A average, and 39% of students reported that they were B students. These percentages fall to 8% for students who reported a C grade average, and 1% for students who had Ds.

Table 8. Grade Distribution

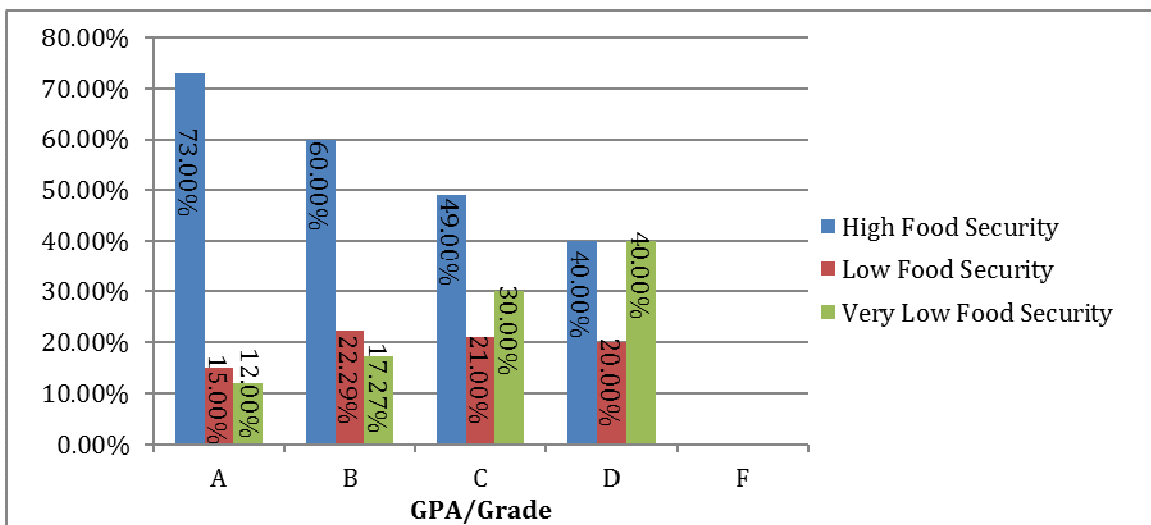
Grade	A	B	C	D	F
Frequency	339 (52%)	254 (39%)	49 (8%)	6 (1%)	1 (0%)

To compare how food security affects student’s grades, the GPAs were compared to the Food Security Scale mentioned above. Table 9 illustrates that as students increased on the Food Security Scale—i.e. as they are increasingly food insecure—GPA tended to decrease. For example, 30% of students with very high food insecurity reported being C students, while 40% of students who reported a D for their GPA also had very high food insecurity, as opposed to only 8% of students who reported an A average and 13% of students who reported a B average (see Chart 4 below).

Table 9: GPA and Food Sum Scale

	0	1	2	3	4	5	6	Total
A	173 (64%)	22 (8.6%)	19 (7%)	8 (3%)	14 (5%)	12 (4%)	22 (8%)	270 (100%)
B	99 (50%)	20 (10%)	25 (12.7%)	8 (4%)	11 (5.6%)	9 (4.57%)	25 (12.7%)	197 (100%)
C	13 (35%)	5 (13.5%)	0 (0%)	2 (5.4%)	6 (16.2%)	0 (0%)	11 (29.7%)	37 (100%)
D	2 (40%)	0 (0%)	0 (0%)	0 (0%)	1 (20%)	1 (20%)	1 (20%)	5 (100%)
F	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Chart 4: GPA & Food Security Levels



As noted earlier, there is evidence to support the claim that low food insecurity decreases GPA. To test if there was a significant correlation between GPA and food security, a correlation test was run. This test resulted in a correlation coefficient of $-.20$. This measures the strength of the correlation, so we know that there was a weak to moderate negative correlation between GPA and Food insecurity. These results show with a high level of confidence that not having sufficient access to quality food in the proper quantity affects students’ grades.

Additional Disparities

Aside from race and ethnicity, there were other important disparities regarding food and housing security among our students. Students from Worcester State University who reported having served in the Armed Forces, Military Reserves or National Guard were affected greatly by food insecurity. Sixty-seven percent of military students reported being food insecure, 58% reported being housing insecure, and 17% reported being homeless. When it was tested if military students were more prone to these issues than non-military, we found that in all three cases, the proportion of students who serve or have served in the military had a higher rate of these insecurities than the rest of the student population. This means that current and former service members were more likely to be food insecure, housing insecure, and homeless, than their peers.

From the survey we saw that full-time students had a lower level of housing insecurity than part-time students. Thirty percent of part-time students identified with being housing insecure, and when we tested to see if the proportion of full-time students was equal to the proportion of part-time students we found this to be false. With a p-value of less than .001, we could assert that part-time students had a higher probability of being housing insecure than full-time students.

In addition, students who identified as parents had a higher probability of being housing insecure as well. Nearly 29% of student parents who attended Worcester State University were housing insecure. At a significance level of .05, the test of equality of two proportions showed these results are statistically significant.

Finally, first generation students were similarly affected by housing insecurity. At a significance level of .005, first generation students were more likely to be housing insecure than students who had family in college.



Addressing Food and Housing Insecurity at WSU

As this report shows, the study conducted at Worcester State yielded results similar to those conducted around the country. It revealed that there was a shocking number of college students who were not getting adequate amounts of food each day. And this is happening on our campus! Based on the results of the survey, one-third of students on this campus were struggling with some level of food insecurity and 15% with housing insecurity. The percentage of food insecure students mirrors that of students at public universities in Massachusetts and throughout the country. This suggests that while there may be factors which make WSU unique, there is a strong likelihood that the root causes of student hunger on our campus are related to those across the state and the nation. As such, it is urgent for WSU to take the lead in making bold steps to address student hunger.

Currently, Worcester State falls behind on strategies to address this form of student need. We have two existing mechanisms on our campus: SNAP (Supplemental Nutrition Assistance Program) advocacy and a limited number of emergency swipes, which represent, respectively, a long-term strategy for a small percentage of students and a short-term fix for an even smaller group in the midst of a crisis. The Urban Action Institute manages the school's SNAP advocacy program, training a small group of students each semester to conduct outreach and staff an on-campus office for one-on-one assistance. The Office of Student Affairs manages the emergency meal swipe program, which issues swipes to students as a one-time form of assistance when the student is in a crucial moment. The latter is, therefore, strictly an emergency short-term solution.

While SNAP is an ideal form of assistance for students in that it offers recipients a monthly amount of money on an EBT card so that they can manage their nutrition with dignity and autonomy, there remain numerous restrictions that render many students ineligible. Students must meet at least one of the following criteria: working part-time 20

hours per week, employed as work-study, receiving Mass Grant financial aid, caring for a child under 12, are in school through Mass Rehab, or other rules.²⁰ Students who are on meal plans that cover two-thirds of their meals are not eligible. Once students meet one of these criteria, they must also meet income requirements which, if they are under 22 years old, means taking into consideration the income of their parents, regardless of whether these students are living at home or their parents are involved in supporting them. At WSU, we estimate with a high level of certainty that there are more eligible students than those who apply for SNAP through the Hunger Outreach Team's office. We also know that it is the case that, because of SNAP's restrictive criteria, there are many non-eligible students who are hungry. Further research could calculate an approximate number of students who are not eligible but who experience food insecurity. Nevertheless, it is clear that SNAP is only a partial solution to food insecurity at colleges and universities, including WSU.



According to the Massachusetts Department of Higher Education, public universities in Massachusetts have been mobilizing resources to establish services to support their students with basic needs insecurity. This includes food pantries, meal swipe donation programs, food recovery programs, mobile farmer's markets, housing support, and "single-stop" centers that provide a more holistic range of services, from counseling, to tax assistance, to child-care, health insurance guidance, legal resources, and fuel assistance guidance. At the time of writing this report, 23 of the public colleges and universities in Massachusetts operate food pantries. This includes nearby Framingham State University and WSU's feeder school, Quinsigamond Community College. Worcester State University has recently opened Thea's Pantry in February, 2019.

The number of housing insecure or homeless students at Worcester State University is significantly lower than the statewide and national rates provided through the Hope Lab's recent surveys. The recent DHE and Hope Lab survey of public higher education institutions in Massachusetts shows that Central Massachusetts 4-year schools have an average of 31% housing insecure students and 12% homeless students. WSU, then, has figures that are about half the number of housing insecure students and a quarter the number of homeless students for our region. There are several factors that might explain this, most notably our method of data collection. The Hope Lab survey tool used in the collection of data in 2017 contained six questions to assess housing insecurity and homelessness and WSU's survey only had four. It is possible that this resulted in our survey capturing a smaller percentage of housing insecure students than are actually present. Further research into this question would elucidate the nature of this variance.

In terms of the disparate impacts of basic needs insecurity across demographic and other lines, particular attention needs to be given to the complex factors that engender higher rates of food and housing insecurities among Worcester State University's students of color, as well as military students, part-time, first-generation, and student-parents. While research shows that hunger disproportionately affects people of color in the United States, and while this helps explain the disproportionate impact of basic needs insecurity among students of color at WSU, it is clear that any new university programming designed to address basic needs insecurities needs to be done in a way that prioritizes inclusivity. Student parents, part-time students, and first-generation students are often also students who are more likely to struggle to make ends meet. Developing more holistic resources like the Single Stop program or partnering with groups like The National Center for Student Parent Programs (collegewithkids.org) would help the university retain these important students, ensure their success in school, and, most importantly, address their most basic needs so that they can achieve their academic potential. Further research on this topic could focus on the experiences of LGBTQ students and other subgroups in the WSU population, such as commuter students.

In addition, with close to 40,000 homeless veterans in the United States, according to the National Alliance to End Homelessness, it is not surprising that WSU's military student population is experiencing basic needs insecurities at higher rates.²¹ Our findings on military students are alarming. Since this subgroup represented a very small portion of the sample for the WSU survey, we suggest that further data be collected with this population. It is clear that the Office of Veteran's Affairs should be a key partner moving forward as Worcester State University seeks to address needs insecurities.

Recommendations

Based on our analysis and in consideration of the broader context of basic needs insecurity, we have compiled the following list of recommendations for the WSU administration, WSU Student Government, Chartwells, Worcester State's dining services contractor, the Commonwealth of Massachusetts, and the Office of Alumni Engagement and University Advancement.

For the WSU Administration:

- The Office of Admissions should conduct SNAP outreach during student orientation and any time a student requests financial aid
- The Financial Aid Office should inform Mass Grant recipients that they may be SNAP eligible when students receive financial aid communications, and provide information on the SNAP application through DTA Connect on all letters and on the Financial Aid website
- The Financial Aid Office should prioritize finding work study jobs for students who do not receive a MassGrant, even for minimal hours of work. Work study can qualify students for SNAP benefits
- The administration should ensure at least one grocery store on campus that provides affordable healthy food and that will apply to USDA Retailer Division for approval as a SNAP EBT retailer
- The Office of Admissions should promote food security programming, keeping in mind that if a third of our current students are food insecure, some percentage of prospective students are likely to be thinking about how living expenses and the costs of education will impact their basic needs
- WSU Health Services should include food security screening in their work to help assess student hunger, and connect students to appropriate services on campus
- The administration should create a sustainable fund that supports students eating in the cafeterias at a reduced cost or for free depending on need
- The administration should support the establishment and operation of a food pantry on campus
- The administration should raise student employment wages to \$15 per hour, and ensure this does not translate to fewer student positions for fewer hours
- The administration should provide free housing and meals to homeless students
- The Office of Student Affairs should open a Single Stop program and partner with a group like The National Center for Student Parent Programs (collegewithkids.org)

For Chartwells:

- Allow students to donate at least one meal swipe per month
- Increase offerings for low cost and adequate nutritious food options, including in Woo Cafe and at the Student Center
- Work with the Administration to establish at least one grocery store on campus that provides affordable, healthy “grab and go” food and accepts SNAP EBT as a form of payment
- Allocate 5% of annual profits to supporting food security initiatives on campus
- Incorporate a food recovery system into your practice to reduce wasted food and save money to then be invested in the other programs suggested
- Establish a place on campus for students to prepare/heat food

- Allow limited paper “To Go” bags in the dining halls
- Foster links between the Freight Farm and the food pantry

For Student Government:

- Create a hunger and housing subcommittee to liaise between SGA and WSU
- Advocate that the WSU Administration offer free housing for homeless students
- Allocate SGA funds annually to be put toward projects that address food and housing insecurity on campus. This should be an annual grant for which students can submit applications outlining strategies and advocacy campaigns they would like to try out
- Send representatives to bi-monthly Worcester Food Policy Council meetings to represent WSU and determine the impact of policy changes on WSU students
- Organize events with speakers to educate campus on issues of hunger, poverty, and housing
- Advocate with Chartwells to allocate funding towards food security initiatives and to institute a meal swipe donation program
- Advocate for a place on campus for commuter students to prepare/heat food
- Fund and staff a mobile farmer’s market to increase students’ access to healthy food

For The Commonwealth of Massachusetts:

- Increase work study wages to \$15 per hour, increase hour limit, and number of positions given that this is one of the criteria for SNAP eligibility
- Amend DTA regulations to exclude all financial aid as countable income in both cash assistance (TAFDC) and SNAP programs. Doing so will obviate the need to ask students and financial aid offices about the financial aid available for living expenses, when rarely any is
- Pursue all federal waivers and options to qualify college students for SNAP, including counting unpaid internships required by a major to count toward the student work requirements
- Work with community colleges and state colleges to advise and help on-campus grocers file for EBT retailer status with Federal Nutrition Service
- Explore with community colleges and state colleges the option of allowing a SNAP “restaurant meal program” for homeless, severely disabled or elder students to purchase hot meals
- Seek an increase in the FY20 budget for increased MEFAP (Mass Emergency Food Assistance Program) funding designated to provide financial support to community colleges and public university food pantries and food security initiatives
- Create and fund a special category of housing assistance/credit for college students

For Alumni Affairs & University Advancement:

- Create scholarships that provide financial assistance for WSU students to advocate for food and housing security
- Include food and housing security programs in all capital campaign initiatives
- Create a grant/scholarship to support student gardening initiatives to direct produce towards food pantry and an on-campus “market”

Conclusion

Among Worcester State University's core values are "Engaged Citizenship," and "Diversity and Inclusiveness." Together, these include commitments to "promoting community service, social justice" and positioning the university as a place where "people from all cultures and backgrounds have the opportunity to participate fully and succeed." The university has done a great deal to work towards these ideas, but the findings of this report should serve as an indicator that more needs to be done.

Together, the unaffordability of college in the United States and social inequality translate to a third of our students experiencing food insecurity, and fifteen percent being without secure housing options. This, in turn, engenders uneven levels of health, wellbeing, and the ability to succeed in college. For WSU to be student-centered, the school requires a broad view of the obstacles our students face in successfully finishing their degrees, and the commitment to tackling these challenges proactively so that our students know WSU is there for them. Additional research should be conducted on the relationship between basic needs insecurity and each of the groups at WSU who experience it in disproportionate numbers. Military students and veterans appear to be particularly vulnerable, and subsequent research could look into how the university is supporting these students, and whether they are receiving all of the assistance for which they are eligible.

This report, and the push for greater food and housing security at WSU is student-driven and supported by faculty. We want to see a future at WSU where all students have the same opportunity to achieve academic success. Our recommendations are a roadmap for how WSU can emerge as a leader in the state and across the United States in meeting the basic needs of our students, and helping them realize their potential.

NOTES

¹ "Table 303.40 "Total fall enrollment in degree-granting postsecondary institutions, by attendance status, sex, and age: Selected years, 1970 through 2027," *Digest of Education Statistics*. National Center for Education Statistics. Accessed on November 11, 2018 at [https://nces.ed.gov/programs/digest/d17/tables/dt17_303.40.asp]; and A.P. Carnevale, N. Smith, M. Melton, and E. W. Price, *Learning While Earning: The New Normal* (Georgetown University, Center on Education and the Workforce, 2015).

² See Massachusetts Department of Higher Education: Student Hunger and Homelessness. Accessed November 20, 2018 at [<http://www.mass.edu/strategic/studenthunger.asp#resources>]

³ We recognize that with this approach we were able to reach every WSU student but that not every student is in the habit of reading student listservs or mass emails. While this introduces some level of selection bias, this represents a reliable method for recruiting a random sample from the student community.

⁴ Participants' contact information was separated from the rest of the completed survey in order to maintain their anonymity.

⁵ See, "U.S. Household Food Security Survey Module: Six-Item Short Form Economic Research Service, USDA," accessed on July 20th at [<https://www.ers.usda.gov/media/8282/short2012.pdf>]

⁶ USDA breaks food (in)security into four categories: high, marginal, low, and very low, where high refers to "no reported indications of food-access problems or limitations" and low and very low security refer to varying levels of limitations in terms of quality, variety, or desirability. See [<https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>]

⁷ See College Board, "Trends in College Pricing 2017," accessed on July 26, 2018 at [https://trends.collegeboard.org/sites/default/files/2017-trends-in-college-pricing_0.pdf]. See also, N. Wilmers, "Wage Stagnation and Buyer Power: How Buyer-Supplier Relations Affect US Workers' Wages, 1978 to 2014." *American Sociological Review*, Vol. 83 (2018), No. 2: 213-242.

- ⁸ S. Goldrick-Rab, J. Richardson, J. Schneider, A. Hernandez, and C. Cady, *Still Hungry and Homeless in College*, Wisconsin Hope Lab (2018), Accessed on July 26, 2018 at [wihopelab.com/publications/Wisconsin-HOPE-Lab-Still-Hungry-and-Homeless.pdf]
- ⁹ This was the first *Basic Needs Insecurity in Massachusetts Public Colleges and Universities*, 2018, Wisconsin Hope Lab, accessed on August 10, 2018 at [<http://wihopelab.com/publications/still-hungry-massachusetts.html>]
- ¹⁰ J. Dubick, B. Mathews, and C. Cady, *Hunger on Campus: The Challenge of Food Insecurity For College Students*. College and University Food Bank Alliance (October, 2016): 6.
- ¹¹ In *Still Hungry and Homeless*, the Hope Lab reports that at four-year institutions, women were 9% more likely than men to be food insecure and 8% more likely to be housing insecure; LGBTQ students were similarly more likely to be food and housing insecure than heterosexual students and almost twice as likely to be homeless. Black and Hispanic students were far more likely to be both food and housing insecure than White students. See also J. Dubick, B. Mathews, and C. Cady, *Hunger on Campus: The Challenge of Food Insecurity for College Students*. College University Food Bank Alliance, National Student Campaign against Hunger and Homelessness, 2016. This study found that 57% of Black or African American students reported food insecurity (compared to 40% of non-Hispanic White students). Accessed on August 7 at [http://students.againsthunger.org/wp-content/uploads/2016/10/Hunger_On_Campus.pdf]
- ¹² A. Coleman-Jenson, C. Gregory, and A. Singh, *Household Food Security in the United States in 2013*. United States Department of Agriculture, 2014. Accessed on October 26, 2018 at [https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2504067]. See also X. de Souza Brigs, “More Pluribus, Less Unum? The Changing Geography of Race and Opportunity,” pp. 17-44 in X. de Souza Brigs, (ed.) *The Geography of Opportunity: Race and Housing Choice in Metropolitan America*. Washington D.C.: Brookings Institute, 2005.
- ¹³ C. Gundersen, and J. P. Ziliak, “Food Insecurity And Health Outcomes.” *Health affairs*. Volume 34 (2015), Issue 11. See also H. K. Seligman, B. A. Laraia, and M. B. Kushel, “Food insecurity is associated with chronic disease among low-income NHANES participants.” *The Journal of Nutrition*. Volume 140 (2010): 304–310.
- ¹⁴ D. C. Payne-Sturges, A. Tjaden, K. M. Caldeira, K. B. Vincent, and A. M/ Arria, “Student Hunger on Campus: Food Insecurity Among College Students and Implications for Academic Institutions,” *American Journal of Health Promotion*, 02/2018, Volume 32, Issue 2, p. 350.
- ¹⁵ “The Impact of Poverty, Food Insecurity, and Poor Nutrition on Health and Well-Being,” Food Research and Action Center, December 2017. Accessed on February 5, 2019 at [<http://frac.org/wp-content/uploads/hunger-health-impact-poverty-food-insecurity-health-well-being.pdf>]
- ¹⁶ M. E., Maroto, A. Snelling; and H. Linck, “Food Insecurity Among Community College Students: Prevalence and Association With Grade Point Average” *Community College Journal of Research and Practice*, 06/2015, Volume 39, Issue 6, p. 523.
- ¹⁷ X. Gao, T. Scott, L. M. Falcon, P. E. Wilde, and K. L. Tucker, “Food insecurity and cognitive function in Puerto Rican adults.” *The American journal of clinical nutrition*, 04/2009, Volume 89, Issue 4. And, K. Alaimo et al. "Food Insufficiency and American School-Aged Children's Cognitive, Academic, and Psychosocial Development." *Pediatrics*, July 2001, p. 48.
- ¹⁸ C. Roustit, A. M. Hamelin, F. Grillo, J. Martin, and P. Chauvin, “Food insecurity: Could school food supplementation help break cycles of intergenerational transmission of social inequalities?” *Pediatrics*. Volume 126 (2010): 1174–1181.
- ¹⁹ M. R. Silva, W. L. Kleinert, S. A. Victoria, K. A. Cantrell, D. J. Freeman-Coppadge, E. Tsoy, and M. Pearrow, “The Relationship Between Food Security, Housing Stability, and School Performance Among College Students in an Urban University.” *Journal of College Student Retention: Research, Theory & Practice*. Vol. 19(2017), No. 3: 284–299, pp. 293-294.
- ²⁰ Mass Legal Services, “SNAP Eligibility Rules/Rights for College Students,” accessed on November 20, 2018 at [<https://www.masslegalservices.org/content/snap-eligibility-rulesrights-college-students>]
- ²¹ Resources: Veteran Homelessness, accessed on November 20, 2018 at [<https://endhomelessness.org/resource/veteran-homelessness/>]

