Hungry Ecologists

A report on the prevalence of food insecurity at College of the Atlantic

Food Access Working Group

Vera Fishman-Resheff, Donovan Glasgow, Sarah Somes

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College of the Atlantic
life changing. world changing.

Our deepest gratitude goes to the plethora of people who contributed to, participated in, and otherwise supported us in publishing this report. We send our appreciation to the 169 students who filled out our survey; each respondent helped to broaden and enhance the quality of the data.

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Executive Summary

This report presents the findings of a survey conducted by the Food Access Working Group (FAWG) in June of 2019 at College of the Atlantic. The working group formed in the winter of 2019 to investigate and address food insecurity on COA's campus. The group found little data regarding food insecurity at COA, but received positive feedback from students to begin an investigation. The #RealCollege survey conducted regularly by the Wisconsin Hope Lab indicates that food insecurity is a common issue on college campuses, decreasing academic performance and lowering mental and physical health. Using the #RealCollege research as a guide, FAWG conducted this survey to initiate data collection on food insecurity at COA.

The survey showed that 31% of COA students are food insecure, which is comparable to the results published by the Wisconsin Hope Lab. Further analysis shows that students with a psychological disorder experience a higher level of food insecurity. Other demographic groups experiencing higher food insecurity include students working over twenty hours a week and students who receive the Pell Grant (a federal, need-based grant for domestic students). International students struggle more than domestic students to obtain food on weekends and school breaks. The majority of students participating in the survey indicated a desire for more information about food access resources and general institutional support. Based on the results of this first survey, FAWG feels that food insecurity is a prevalent issue that should be incorporated into the work of groups across campus, including Student Life. To conclude, FAWG provides recommendations to continue the work of understanding and combating food security at COA.

Introduction

I. Broad Context

Hunger on college campuses is largely invisible to those not directly impacted by it. Generally, it is assumed that students who can manage the high cost of tuition can afford the comparatively menial cost of daily life. While this may have been true decades ago, the reality of higher education is changing. First, the demographics of college enrollment have shifted. According to the 2018 U.S. GAO Report, while "a traditional college student is generally considered to be someone who is enrolled in college full time immediately after graduating from high school, is financially dependent on his or her parents, and either does not work during the school year or works part time… these students represent a minority of students enrolled in college today."[1] A significant portion of college students are enrolled part-time (ranging from 37.1% in two-year institutions, 16.2% in undergraduate four-year institutions, and 40.4% in graduate schools)[2], a majority of students are financially independent from their parents (51%)[3], and most are working (36% part-time and 26% full-time)[4]. In addition to these demographic shifts, college is becoming less affordable. While college tuition "is rising faster than inflation. . . The Pell Grant, the flagship federal program, does not buy what it used to."[5] Because of this, "students from low- and moderate-income families have a great deal of unmet financial need."[6] Those experiencing hunger in college fit into two categories: those for whom hunger and poverty is a preexisting condition and those who experience hunger and poverty due to the high cost of education.

The effects of hunger are dire for students. Researchers have consistently shown that student hunger is associated with decreased academic success and poor mental and physical health. Research conducted by "two community colleges in Maryland found that food insecure students were 22% less likely than food secure students to have high grades."[7] Additionally, low basic-needs security correlates "with self-reports of poor physical health, symptoms of depression, and higher perceived stress."[8] Most studies regarding the health impacts of food insecurity focus on children, though research on non-senior adults associates food insecurity with "decreased nutrient intakes; increased rates of mental health problems and depression, diabetes, hypertension, and hyperlipidemia; worse outcomes on health exams; being in poor or fair health; and poor sleep outcomes."[9] The physical and mental impacts of food insecurity add an extra burden to students who are already struggling both to maintain academic standing and to make ends meet.

There are a number of smaller organizations working to alleviate hunger on campuses—such as Swipe Out Hunger, which focuses on reforms to meal swipes programs—as well as larger organizations—such as Universities Fighting World Hunger, which advocates for action between schools. Sara Goldrick-Rab has been at the forefront of college hunger research and advocacy. In 2013, she founded the Hope Center for College, Community, and Justice, a leader in campus hunger research and advocacy. Notably, the Hope Center's #RealCollege initiative annually surveys students' basic needs in participating colleges across the United States. We've drawn heavy inspiration from her work in this report. Non-profits have brought attention to the issue, and the government is responding. California amended its education code in 2017 to include postsecondary education food initiatives. In 2018, United States Government Accountability Office wrote a report outlining the need for increased federal research and support on campus hunger.

> A disjunction emerged: faculty remarked that they had never thought about campus hunger before, while students kept saying "finally, someone is paying attention to this issue."

II. Food Access Working Group

Hunger on college campuses has steadily gained more and more attention recently across the US, but the issue is yet to be tackled locally. COA consistently ranks nationally for accolades such as sustainability, innovation, student achievement, and campus food, and instead of resting on these laurels, the college has admirably taken a more introspective look into improving equity and diversity on campus within the past few years. With the under-

standing that all issues are intersectional, we—the members of FAWG—believe student hunger should be incorporated into that campus-wide conversation on improving the COA experience, and this report aims to ground that effort.

FAWG was founded in February 2019 by students in order to assess whether food access is an issue at COA. A disjunction emerged already in the first meeting: faculty remarked that they had never thought about campus hunger before, while students kept saying "finally, someone is paying attention to this issue." Through anecdotes offered in these first meetings of skipping meals on weekends and seeing friends go hungry, it was clear to the working group, and many community members, that food access is an issue at College of the Atlantic. As a result, FAWG developed the following mission statement: to understand, communicate, and eradicate manifestations of hunger at COA.

To investigate concerns brought up by students, we conducted a survey in June 2019. In this report we consolidate the results of the survey, assessing the extent of the issues and producing clear evidence in order to receive institutional backing for action. We then brought the results to the community by collaborating with HeLaCell, presenting to various groups on campus, and hosting an All College Meeting (ACM) to solicit feedback, questions, and comments on our findings. Furthermore, we hope that the findings will support other working groups in their own missions, notably the Student Persistence Working Group, the Diversity, Equity, and Inclusion Working Group (DEI), the First Year Experience Working Group, and Student Life.

III. Definitions

The United States Department of Agriculture (USDA) defines food insecurity as "a lack of consistent access to enough food for an active, healthy life."[10] The USDA's interpretation neglects important qualitative aspects of food security such as access to culturally relevant food. However, this definition conveniently allows quantitative measurement of food insecurity at COA, so we use it while conceding its shortcomings.

Food access refers to a framework of identifying barriers to procuring nutritional, desired, and culturally appropriate food. Hunger is a physical manifestation and consequence of lacking adequate food access: undernourishment. Though there are other forms of malnourishment resulting from inadequate access to food, hunger is the most easily understood and came up as the central concern in FAWG meetings about food insecurity at COA.

IV. Methodology

On May 31st 2019, we launched a survey to assess levels of food security among COA students. Additionally, the survey aimed to understand the barriers to food access which are unique to COA such as institutional policies and demographic trends. We sent an email out

to all students with a link to the survey on the online platform SurveyMonkey. Students were incentivized to complete the survey with the chance to win a $50 gift card if they decided to enter a drawing. The survey was left open until June 19th in order to gain as many responses as possible. In the meantime, we sent periodic reminders to take the survey via the student email list, and FAWG members also made announcements in classes and the dining hall, Take-A-Break (TAB), asking students to take the survey.

The first 10 questions of the survey were the USDA's 10-item Adult Food Security Survey Module: a series of yes or no questions designed to evaluate whether survey respondents are "food secure" or "food insecure." According to the USDA's guide on using the module, "the sum of affirmative responses to the 10 questions… is the household's raw score on the scale." A survey respondent with zero affirmative responses ("yes" answers) to these questions is rated as having "high food security;" a respondent with one or two affirmatives has "marginal food security;" three, four, or five affirmatives is "low food security;" and six through ten affirmative responses means the respondent has "very low food security." Respondents having low and very low food security are both classified under the term "food insecure," while the other two categories constitute "food secure" respondents.[11] The 10 questions are included in Appendix One.

In addition to the USDA's Module, 15 other questions were posed to students in the FAWG survey. Some questions ascertained demographic characteristics of respondents such as year in school, residency, parents' level of education, and disability status. Other questions gathered data on food access challenges specific to COA such as TAB's closure on the weekends and school breaks. A full list of the questions is included in Appendix One.

V. Demographics of Sample

Table 1 presents the demographics of survey respondents and the actual demographic numbers of the COA student body. A total of 169 students responded to the FAWG survey, comprising 50% of COA's student body (337 individuals). First years are a little overrepresented; this demographic makes up 28% of the student body but 32% of survey respondents. Likewise, domestic students are underrepresented in our survey by 5%, and international students are overrepresented by 5%. The differences between the FAWG and COA data are likely due to the methodology of advertising; much of the outreach to take the survey was done on campus during mealtimes, which may explain the overrepresentation of groups that tend to live on campus such as first year and international students. Beyond year in school and residency statistics, the representativeness of this survey sample cannot be assessed due to a lack of institutional data. Due to rounding, some of our columns do not add up to 100%.

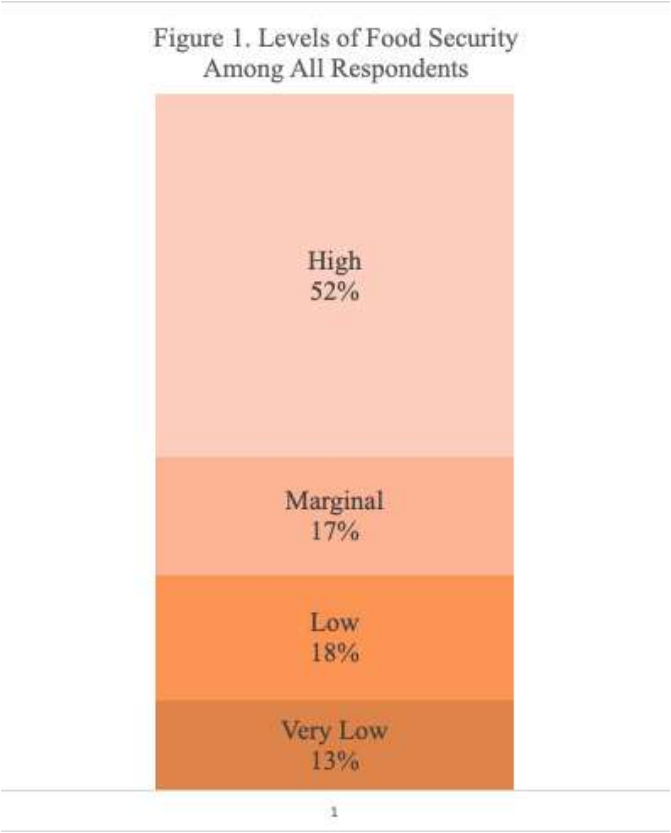
Table 1					
Demographics	FAWG Survey Data		COA Institutional Data		
	Raw Number	Percent of Total Survey Responses	Raw Number	Percent of Total COA Student Body	Response Rate (Survey Raw Number/COA Institutional Raw Number)
All Respondents	169	100%	337	100%	50%
Year in School					
First Year	54	32%	96	28%	56%
Non-First Year Undergraduate	109	65%	236	70%	46%
Graduate	2	1%	5	2%	40%
Residency					
Domestic	119	70%	249	75%	48%
International	50	30%	83	25%	60%
Housing					
Off-Campus	81	48%	Institutional data unavailable		
On-Campus	87	51%	Institutional data unavailable		
Highest of Parental Education					
Secondary/High School Diploma	20	12%	Institutional data unavailable		
Some College/University	21	12%	Institutional data unavailable		
College/University Certificate or Diploma	12	7%	Institutional data unavailable		
Bachelor's Degree	43	25%	Institutional data unavailable		
Graduate Degree	61	36%	Institutional data unavailable		
Other	11	7%	Institutional data unavailable		
Number of Work Hours per Week (Work Study and Outside Jobs)					
0 hours	9	5%	Institutional data unavailable		
1 to 10 hours	74	44%	Institutional data unavailable		
11-20 hours	61	36%	Institutional data unavailable		
21-30 hours	18	11%	Institutional data unavailable		
30+ hours	4	2%	Institutional data unavailable		
Table 1 illustrates the demographics of respondents alongside demographics of the COA student body obtained by instiutional reports.					

Results

I. Quantitative Data

The general data gathered by the survey supports anecdotal discussions of food insecurity at COA. Figure 1 shows that 52% of respondents experienced high food security, 17% experienced marginal food security, 18% experienced low food security, and 13% experienced very low food security. Therefore, COA's food insecurity rate is 31%. This is comparable to the Wisconsin Hope Lab 2018 survey which found that 36% of students at participating four-year universities were food insecure. COA's data reflect nationwide research showing that college food insecurity is prevalent and directly impacts roughly one third of students.

Figure 1. Levels of Food Security Among All Respondents



II. Demographic Data

Though the school's overall food insecurity rate is 31%, not all groups of students are affected equally. Table 3 presents the food security levels of respondents filtered by various demographics. Due to rounding, the percentages sometimes do not add up to 100%.

Table 3. Food Security by Demographic	Response Rate		Food Security Level				
	People	%	High	Marginal	Low	Very Low	Food Insecure
All Students	169	100%	53%	17%	18%	13%	31%
Year in School							
1st Year	54	31%	46%	9%	22%	19%	41%
2nd Year	41	23%	51%	27%	20%	2%	22%
3rd Year	30	17%	33%	20%	37%	10%	47%
4th Year	38	22%	47%	18%	18%	16%	34%
*Does not include 2 graduate students' responses (1.19% of total) to maintain anonymity.							
Workstudy							
Students with workstudy	143	81%	54%	20%	16%	10%	26%
Students with workstudy and additional work	52	29%	48%	10%	23%	17%	40%
Total Hours Working							
0 hours	9	5%	78%	0%	11%	11%	22%
1-10 hours	74	42%	53%	16%	23%	8%	31%
11-20 hours	61	34%	52%	16%	16%	15%	31%
21-30 hours	18	10%	28%	28%	17%	28%	45%
31+ hours	4	2%	50%	25%	0%	25%	25%
Residency							
Domestic	119	67%	53%	15%	19%	13%	32%

International	50	28%	48%	22%	16%	14%	30%
Disability							
None	109	62%	61%	17%	13%	9%	22%
Psychological Disorder	37	21%	38%	14%	22%	27%	49%
Housing							
Off-campus	81	46%	43%	26%	19%	12%	31%
On-campus	87	49%	60%	9%	17%	14%	31%
Pell Grant (US Students Only)							
Receiving the grant	68	38%	38%	15%	27%	21%	48%
Not receiving the grant	50	28%	72%	16%	10%	2%	12%
Meal Plan							
15 meals/wk	59	33%	66%	9%	9%	17%	26%
10 meals/wk	24	14%	46%	25%	17%	13%	30%
Declining Balance	60	33%	43%	23%	18%	15%	33%
Parents' Highest Level of Education							
Secondary/high school diploma	20	11%	35%	25%	15%	25%	40%
Some college/ university	21	12%	48%	29%	14%	10%	24%
Bachelor's Degree	43	24%	54%	14%	23%	9%	33%
Graduate Degree	61	36%	62%	15%	15%	8%	23%

The data show a concerning level of food insecurity at COA, and demographic analysis exposes multiple disparities within these results. One of the largest differences is among students with a psychological disorder and students who do not have a disability. Strikingly, nearly half of students with a psychological disorder (49%) are food insecure while 22% of students with no disability are food insecure.

Students who work more hours per week experience more food insecurity. The rate of food insecurity is 45% for students working 21-30 hours a week, 31% for students working 1-20 hours, and 22% for those who don't work. Additionally, 40% of students who have jobs in addition to work study are food insecure, while the rate for students with only work study is 26%.

The percentage of food insecure students living off and on campus is exactly the same at 31%. However, 26% of off-campus students are marginally food insecure compared to 9% of on-campus students in this category. Additionally, 14% of off-campus students often skip weekend meals and 23% of on-campus students do the same. This could be because on-campus students are more reliant on COA dining services which close over the weekend. It requires a higher level of planning for an individual to purchase and cook food for just two days at a time.

The Pell Grant is a need-based federal form of financial aid for US domestic students. Among those receiving the Pell Grant, 48% are food insecure, while 12% of non recipient students are food insecure, another huge disparity. Parent's education level is also a factor, as 23% of students whose parents hold a graduate degree are food insecure compared to 40% of students whose parents hold a secondary/high school diploma.

The percentage of international and domestic students that are food insecure are very close; 30% and 32% respectively. However, other questions regarding skipping meals on weekends and obtaining food over breaks indicate disparities between these two groups, as discussed later in the report.

III. Qualitative Data

In the open-ended section, students expressed their connection to the issue and shared anecdotes of personal struggles with food security. One student wrote in the survey that they "have lost about fifteen pounds due to lack of food access at COA, and that is part of the reason [they] had to drop out." Another student referenced the high expectations for food quality outside of TAB: "I know it's an extension of the college's ideals, but it makes food much more expensive than it should be, and causes a marginalization between classes of students."

Many students identified the constraints of TAB as problematic: “I am not on campus during meal hours,” “I skip most of my meals because food is only offered in a very narrow time slot,” “TAB isn’t open long enough,” “sometimes I skip meals because of the atmosphere in TAB.” Additionally, students expressed confusion surrounding operational hours and occasional problems with food labels in TAB. Weekends are another cause for concern “due to a lack of knowledge about how to cook good food on a budget.” Several students expressed that “food is extremely expensive here” in Bar Harbor, and time and transportation may be additional barriers.

Multiple students provided suggestions for action steps. Many comments advocated for a system in which students can share meal swipes with others who may need them. One participant stated that “sharing meal swipes with others seems like a wonderful way to help friends get the food they need.” Other ideas included “organiz[ing] a way to share when there is left over food in TAB or Sea Urchin.” Currently, leftovers in TAB are sold at a discounted price at later meals, or left out on the counter following meal times. Leftover soups and sandwiches are loaded into a vending machine next to Sea Urchin and sold for a few quarters or for free. These are affordable options for many students, but the availability of leftovers depends on how much food was prepared and sold during meals, so it’s not always a reliable resource.

Similarly, students advocated for a “‘Community Shelf’ system where off campus students could access unwanted food,” a “communal pantry/fridge,” and for “encouraging students

to share food and pool resources." Others suggest making information about meal plans more clear and easy to find. Finally, a few students proposed opening either TAB or Sea Urchin on the weekends, or a system in which "people could sign up to receive reheatable meals for the weekends from TAB . . . sort of like a 'meals on wheels.'" The verbal and written feedback from survey participants and community members indicate that food access at COA is a prevalent issue in the minds of students.

All College Meeting

During the winter term of 2020, members of FAWG presented to COA's All College Meeting (ACM) to share the findings of the survey and solicit additional feedback. After the presentations, attendants of ACM broke into five groups and discussed a series of questions. In response to the first question: "What are your reactions? What questions come to mind?" One group wondered how TAB calculates the cost of food they make, and felt that meal plans should be flexible so that students aren't paying for meals they don't eat. Another group wondered how the costs for community meals are covered and how more community educational cooking opportunities could be facilitated. This group also questioned the link of food and socializing and how that impacts students who might not feel comfortable or included in such a space. The third group was interested that the percentage of food insecure students at COA is similar to the national average. They also asked how students can save money in relation to declining balances and about the possibility of on-campus cooking workshops. They wondered why Sea Urchin is only open at limited times and how well community dinners are working. The fourth group wondered how accurately the results reflect the entire student body at COA because not everyone completed the survey. They wondered how to make surveys required and whether or not food access is important enough of an issue to us as an institution. They asked if opening dining services on the weekends would really help students and noted that students might cook less as the term goes on and courses get busier. They also wondered how situations on and off campus differ. The final group recorded surprise at the food insecurity rate and emphasized the need to address this. They also expressed surprise at the stigma of using resources such as the food pantry or SNAP. They wondered if we could reduce this stigma by making COA's own food pantry, because right now students slyly take from TAB to help peers. They also wondered if it makes more sense to open dining services on the weekends and noted that it's interesting that some work study students have meal benefits from working in TAB or Sea Urchin and others do not.

Next, each group discussed the question: "What problems or causes underlie food insecurity at COA?" The first group listed time constraints and stress as factors. The second group also wondered if food insecurity is more of a time or money issue, and noted that students might have a more expensive meal plan to save time on cooking and shopping

for food. They noted that money is also a consideration and wondered if COA students have enough refrigerator space, if they know how to cook, and if they are able to consume a variety. The third group also listed time constraints and mentioned that college culture might normalize skipping meals or regularly eating cheap foods lacking in nutrition. They also noted that international students struggle more to find work and support themselves over breaks. Group 4 listed money, work, time, transportation, lack of community, and the challenge of food shopping for two days at a time on the full meal plan. They also noted a potential stress from expectations that students will pay for and cook house dinners. The final group stated that students on the full meal plan might not want to buy fresh food for the weekends.

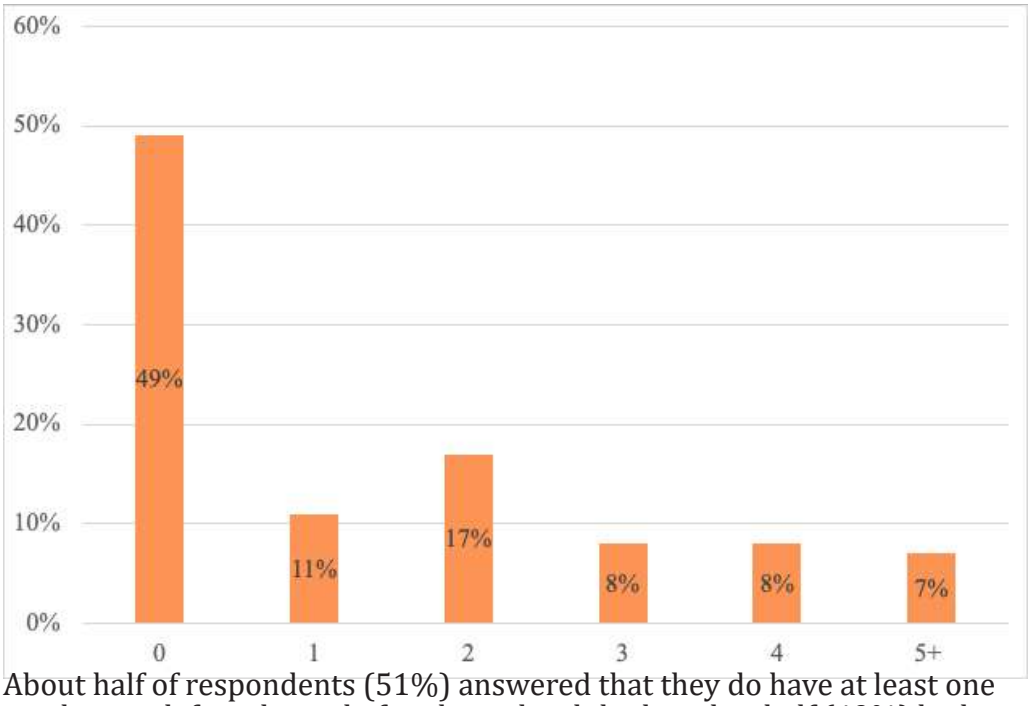
Finally, the groups discussed the question: "What needs to be done?" The first group stated that there needs to be more discussion, and suggested compiling housing resources and costs to help students make informed decisions. The second group suggested that the night bus deliver leftovers from dinner that would otherwise be composted to students living off-campus. They also wondered how many students are taking leftovers left out in TAB and Sea Urchin who aren't food insecure. They also noted that short lunches can pose a challenge, but this could be helped if professors allow students to eat in class, as some do. They also suggested making it more clear to students how many swipes they have left on the meal plan. The third group echoed the need to continue this conversation beyond ACM. The fourth group suggested that extra food from Beech Hill Farm could go to campus and the Bar Harbor Food Pantry. They also suggested making a cookbook for community cooking and stated the need to empower students to learn and take better care of themselves. Group five suggested creating a COA food pantry and food drive, hosting cooking workshops including bulk food management and cooking on a budget, coordinating community dinners more, and potentially putting a TAB cookbook in all on-campus housing.

COA Policies

In addition to measuring the food security levels of students, the survey also investigated policies specific to COA and their effects on food access. Areas of concern were the efficiency of the meal swipe system, the extent to which students rely on leftovers from TAB and Sea Urchin as a source of food, the amount of students who skip meals on weekends when TAB is closed, the difficulty students have obtaining food over school breaks, awareness and acceptance of food assistance programs, and support for future changes. Once again, responses filtered by demographic reveal important differences among the student body.

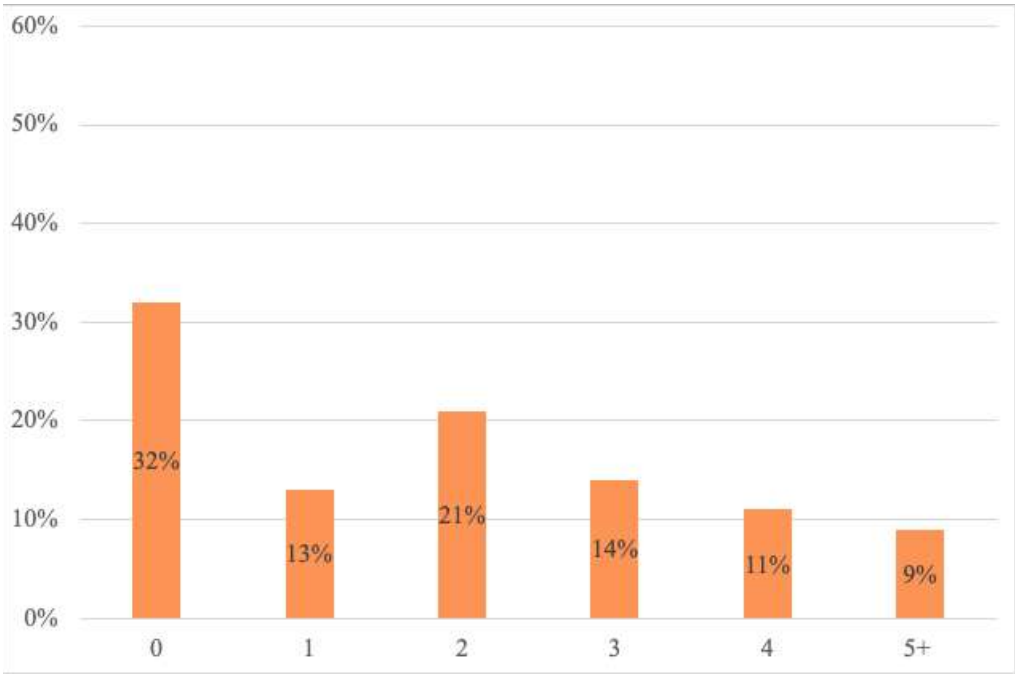
I. Meal Swipes

Figure 2. All responses to the question: How many unused meal swipes do you have at the end of each week?



About half of respondents (51%) answered that they do have at least one meal swipe left at the end of each week, while the other half (49%) had zero. As expected, students with full meal plans lose more meal swipes per week, as shown below.

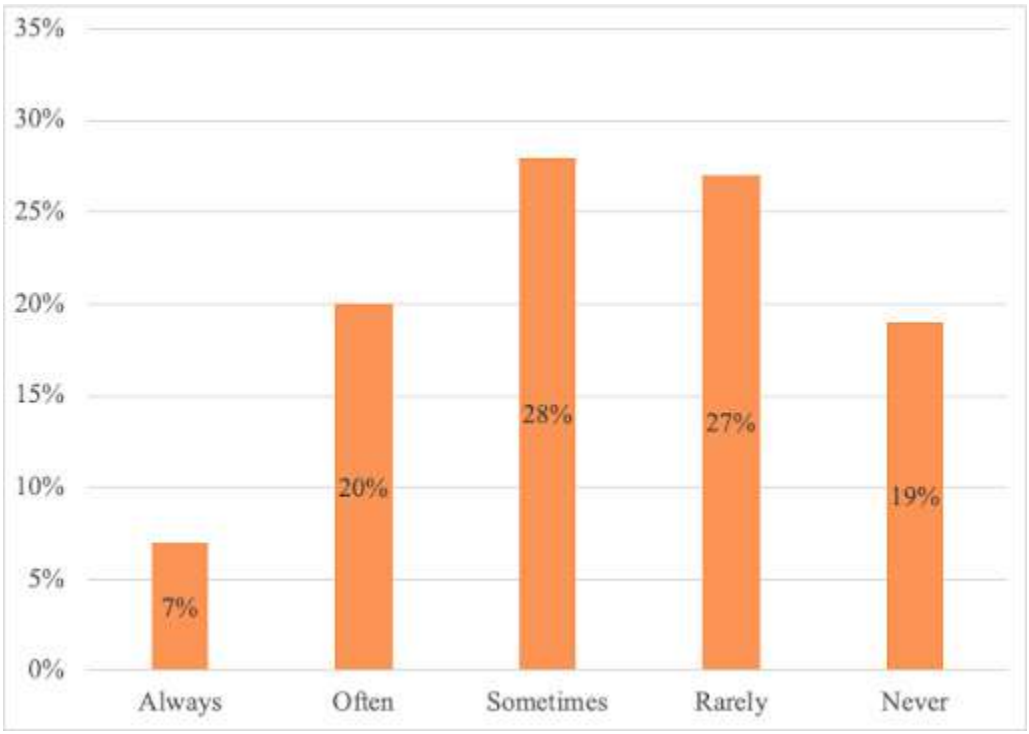
Figure 3. Full meal plan student responses to the question: How many unused meal swipes do you have at the end of each week?



A majority of full meal plan students (78%) report losing at least one meal swipe each week, while 32% report losing none.

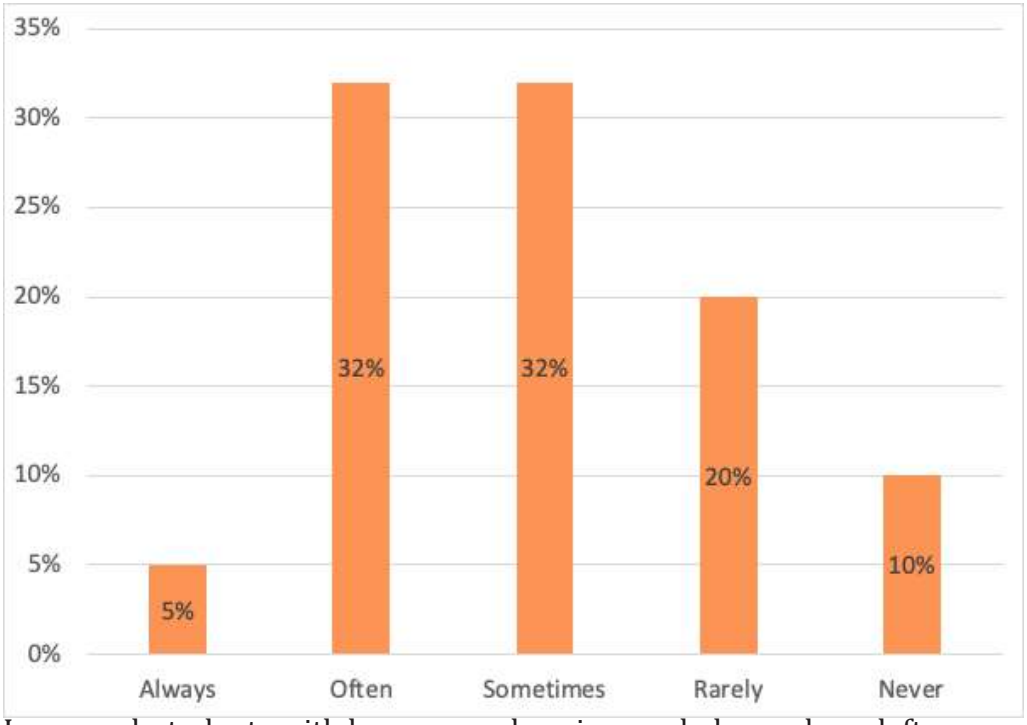
II. Reliance on Leftovers

Figure 4. All responses to the question: Do you regularly rely on leftovers from TAB or Sea Urchin as a source of food?



Leftovers from TAB and Sea Urchin do represent a source of food for many students. The word "leftovers" was not defined, but it could be construed to mean the leftovers sold during meal times, the free leftovers put out between meal times, and the leftovers for sale in the Sea Urchin vending machine. Students with a declining balance meal plan rely on leftovers at a far higher rate, as seen in the next figure.

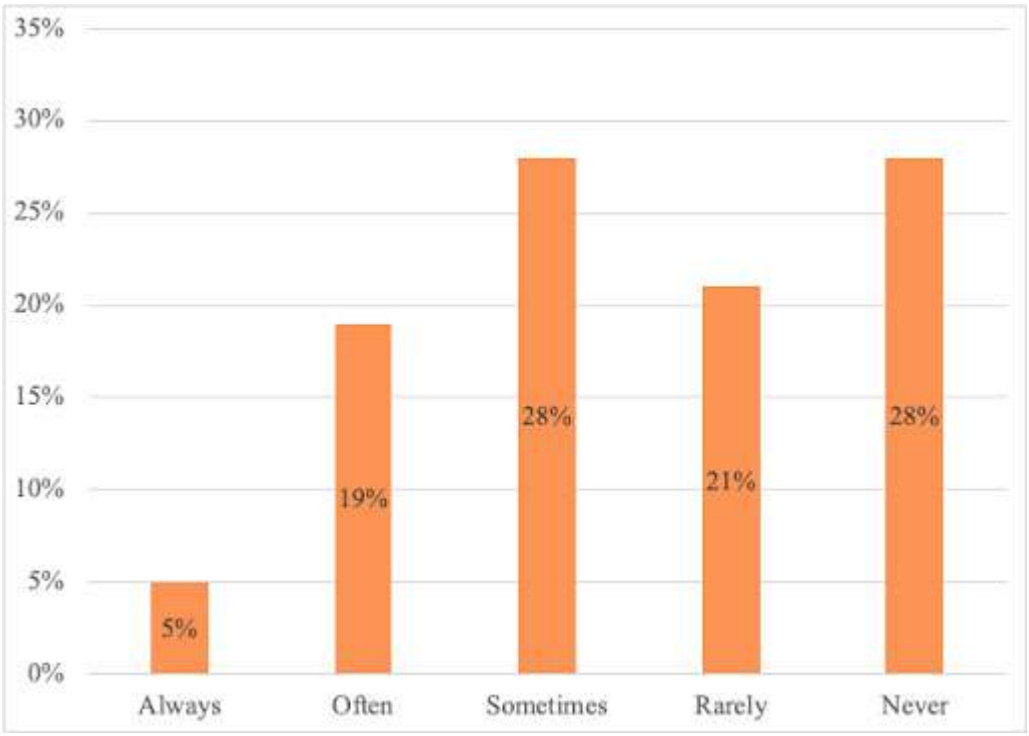
Figure 5. Responses of declining-balance students to: Do you regularly rely on leftovers from TAB or Sea Urchin as a source of food?



In general, students with less comprehensive meal plans rely on leftovers at higher rates than their peers. Of fourth year respondents, 26% reported relying on leftovers often, as did 25% of off-campus students and 28% of students who work 11-20 hours per week.

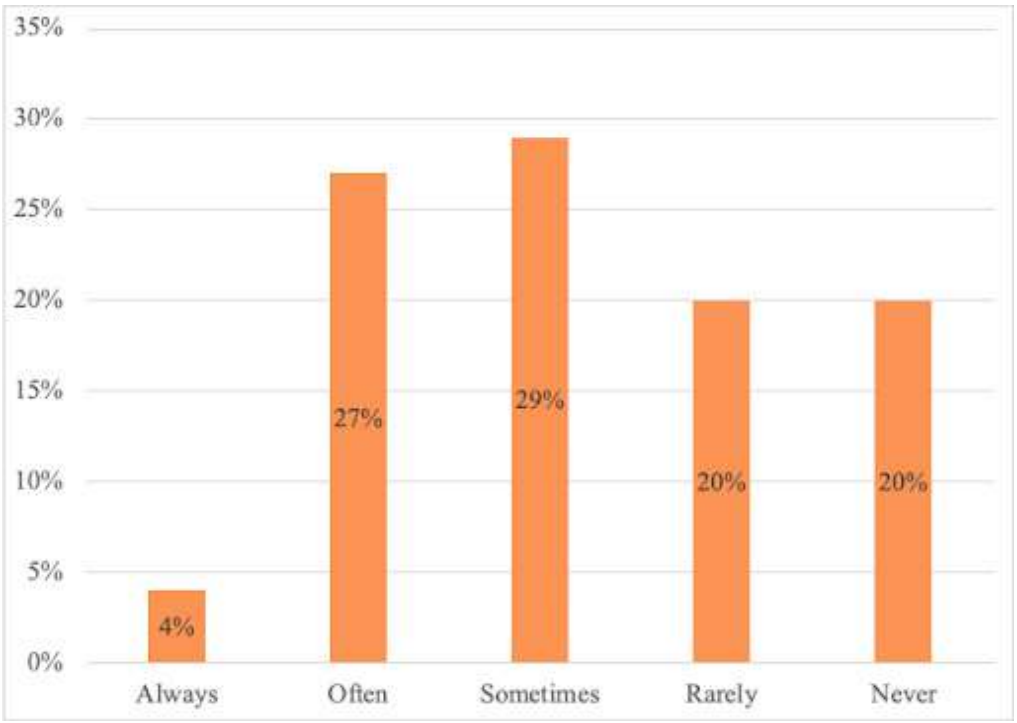
III. Skipping Meals on the Weekends

Figure 6. All responses to the question: Do you skip meals on the weekend when TAB is closed?



Skipping meals on the weekend is a problem amongst all students, as this graph shows. But the problem is especially pronounced among international students, shown below.

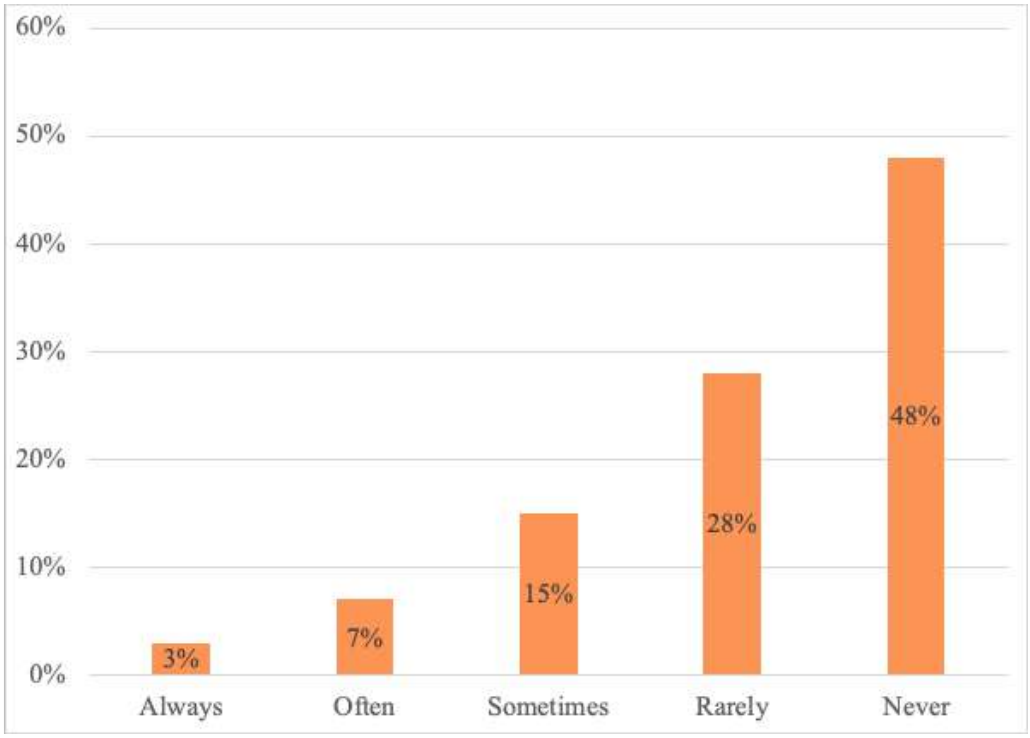
Figure 7. International student responses to the question: Do you skip meals on the weekend when TAB is closed



27% of international students responded that they often skip meals on the weekends, which is 12 points higher than the rate for US students alone (15%) . Other demographics which often skip weekend meals at high rates are students who live on campus (23%) and students who receive the Pell Grant (22%).

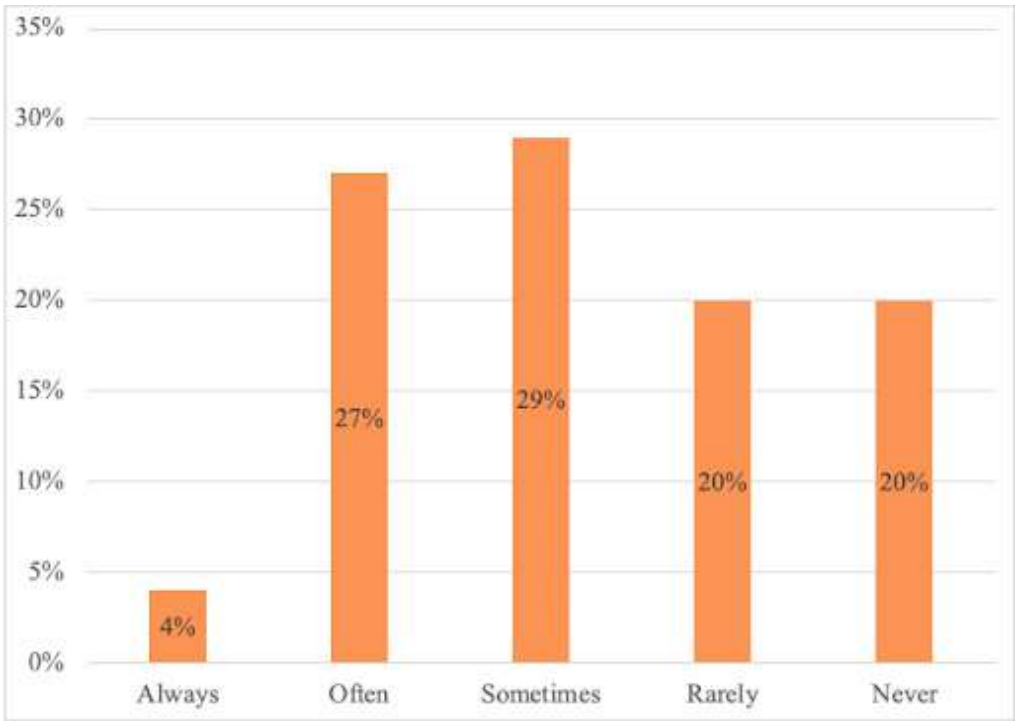
IV. Obtaining Food Over Breaks

Figure 8. All responses to the question: Do you struggle to obtain food over the school breaks (winter, spring, and summer)?



These responses suggest that finding food over breaks is somewhat of a problem in general. Overall, 53% of all respondents struggle to obtain food over breaks at least rarely. But in this area, once again, international students report a harder struggle. This potentially correlates with the fact that

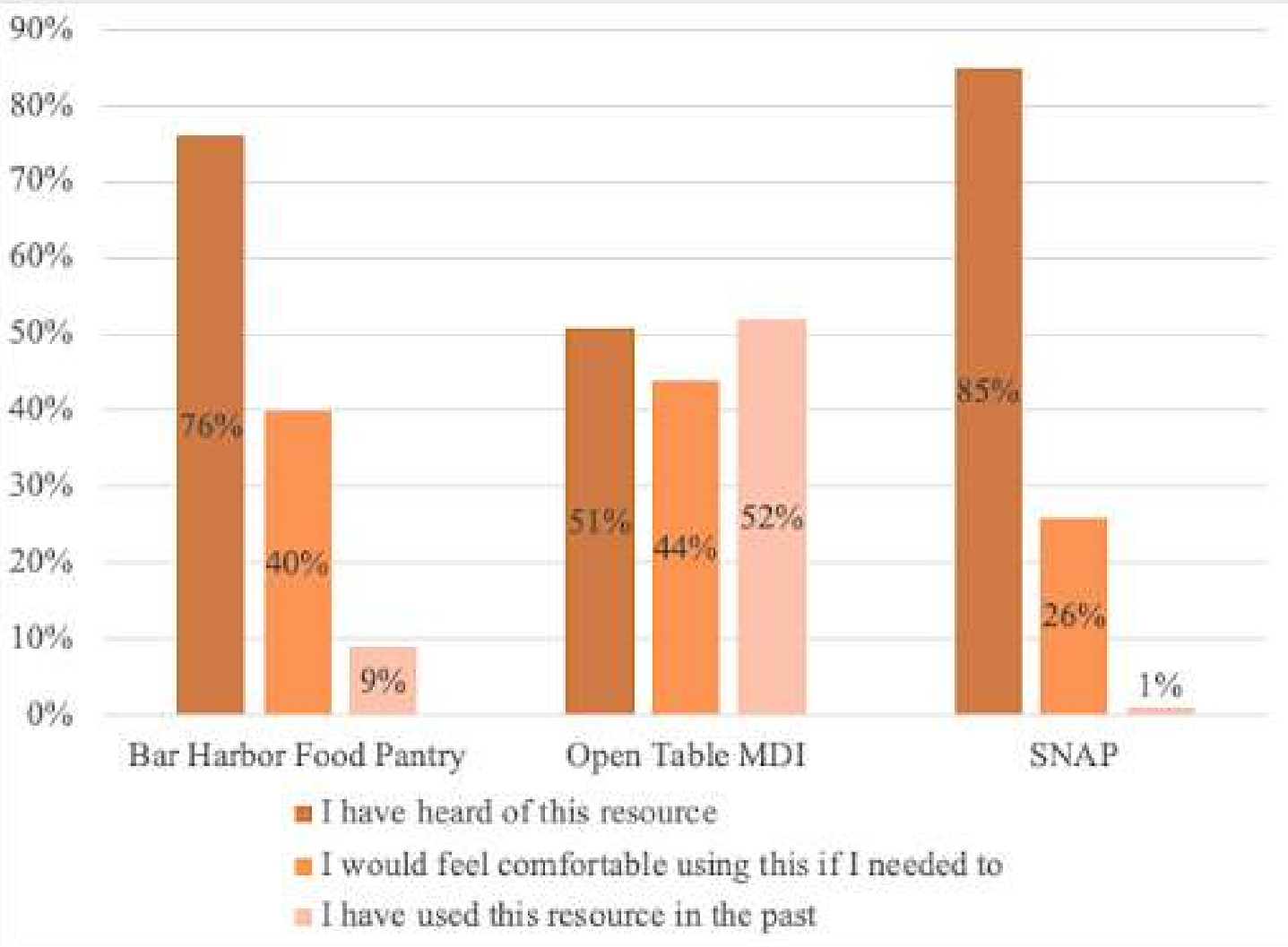
Figure 9. International student responses to the question: Do you struggle to obtain food over the school breaks (winter, spring, and summer)?



The difference in responses between international students and all respondents is striking. There's a 10% increase in both "often" and "sometimes" responses and a 21% decrease in "never" responses.

V. Use of Existing Services

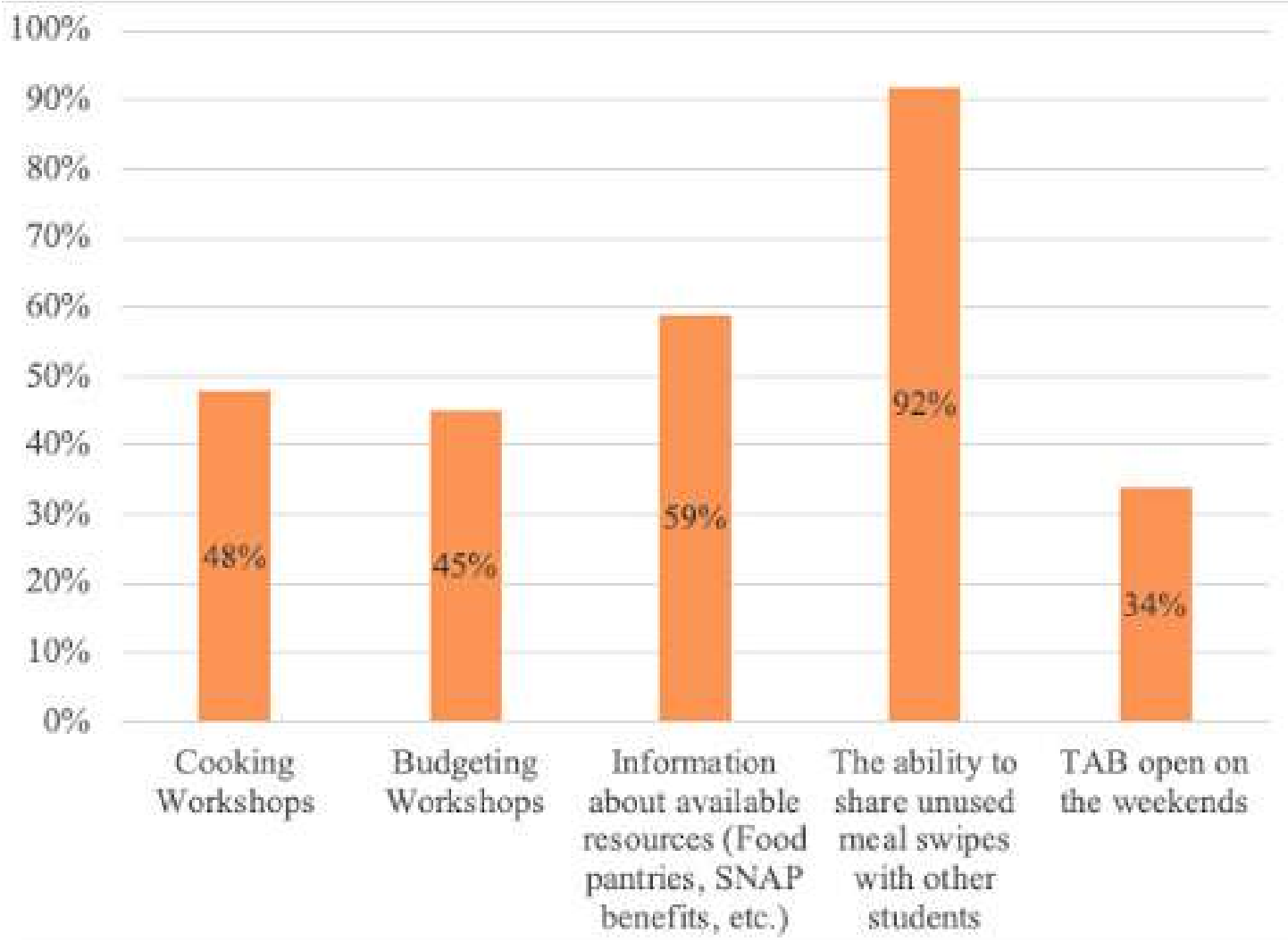
Figure 10. All responses to the question: Of the following resources, which have your heard of, would feel comfortable using, or have used in the past? Check all that apply.



Students seem to be aware of different food assistance programs but, in general, would not feel comfortable using them, suggesting that barriers such as stigma and accessibility may be strong. Only 1% of respondents have used SNAP in the past, a striking detail given that COA's food insecurity rate is 31%, while 9% have used the food pantry. Perhaps low reported SNAP usage is due to the difficulty in applying for SNAP as a college student–applicants must work a minimum of 20 hours per week and travel to Ellsworth for an in-person interview. The food pantry and Open Table, which are universally open and do not require applications, are more accessible in comparison.

VI. Support for Specific Changes

Figure 11. All responses to the question: Would you like to see any of the following services or changes at COA in future? Please check all that apply.



Respondents enthusiastically support the implementation of a meal-swipe sharing program, while TAB being open on the weekends was the least popular choice. However, these results might not be truly indicative of which methods would most efficiently reduce hunger. Students are food insecure for different reasons, and therefore would benefit the most from different strategies. Some students only struggle with food insecurity on the weekends and need TAB to open on the weekends. Other students are food insecure throughout the week, and might benefit more from shared meal swipes or other supports. It's not clear from our survey what methods would have the most impact reducing hunger on COA's campus. More research is needed to assess the effectiveness of each possibility.

Summary and Discussion

Some of the results confirmed our suspicions about the breadth and nature of food insecurity at the College. We found that COA is no exception to the emerging national problem of hunger on college campuses; its overall food insecurity rate (31%) is comparable to other private, four-year colleges and universities across the country. Unsurprisingly, the problem is more pronounced for specific groups of students. COA students from economically disadvantaged backgrounds are more food insecure than their more privileged peers, as are students with psychological disorders; international students struggle to access food on breaks and weekends due to TAB closures; and the more hours students work, the higher their food insecurity rates rise. These results confirm the anecdotal understanding COA students seem to have about the relationship between student hunger and demographics.

Other results were surprising due to their extreme disparities, such as the one between domestic US student recipients and non-recipients of the Pell Grant. Our survey shows that COA students from impoverished backgrounds, students who are working, students with psychological disorders, and international students are all at particular risk for food insecurity. These same groups also have trouble with certain COA specific policies, like TAB closures, and use the same coping mechanisms, like skipping meals on the weekend and relying on leftovers as a source of food.

Even though many students at COA struggle with food insecurity, a majority of respondents would not feel comfortable using food assistance services, like the food pantry or SNAP, if they needed to. This perhaps points to a stigma among respondents about using these services which is a barrier between getting food to struggling students.

Results show a consensus around reforming the meal swipe system. Most respondents with full meal plans regularly lose money every week with unused meal swipes. Combined with an anecdotal understanding that many of their peers are going hungry, this meal swipe system is understood by COA students to be inefficient in its current state. A resounding 91% of respondents favor a meal-swipe sharing program.

This survey is the first step in understanding the issue of food insecurity at COA—one of three aims in our mission. It is a starting point, and more diversified evidence should be gathered as part of the comprehension process. The most important outcome of this research is to contribute to broader conversations on campus. Responses from students indicate that the restrictive hours of TAB and meal plan ambiguity are issues that must be taken to a larger platform, such as ACM. Additionally, the overwhelming majority of students are interested in developing a meal swipe sharing program, something that FAWG could help implement. Our data also highlights vulnerable demographics which need more attention and institutional support. Bringing this disparity to larger conversations is a pri-

ority going forward. Finally, we need to increase our efforts in raising awareness of various resources available to students at COA and in the greater community. Much work remains to address food insecurity at COA, and multiple groups must work together to improve the conditions of our community.

Limits

The information gathered by the first survey is valuable, though there are several limitations to the data. First, the focus of the survey was narrow. Only surveying students left out other members of the COA community. In the future, campus food access surveys should include faculty and staff members. The survey platform also had a few technical glitches initially which complicated the process and might've resulted in a few students who were unable to complete the survey.

Though the survey itself was researched and intentionally written, later analysis revealed limitations in the data. The questions regarding work study and outside employment failed to offer an option for students to indicate if they have an outside job but don't have

work study. Additionally, one question asked participants whether or not they receive the Pell Grant as a measure of financial need. As the Pell Grant is only available to domestic students, this is a poor indicator of economic status of the student body as a whole. Certain demographics including race, gender, and sexuality were left out of the survey. Initially, we omitted these questions due to concerns of participant anonymity and uncertainty of whether this information would be useful. Looking back, race and gender are critical to food security analysis and should've been included for further insights.

Our survey operated under a narrow definition of food security and neglected to question whether available food is culturally appropriate or nutritious. Survey data provides a quantitative measure of food access, but widening the scope of our research wouldn't have improved the accuracy of the data. Alternative approaches such as collecting more anecdotal evidence would have strengthened the report. Additionally, the purpose of data collection was not made explicitly clear to participants; FAWG spent more effort publicizing the survey and soliciting responses than clarifying and explaining our work and mission. It's possible that this lack of intention negatively impacted our response rate.

At a school of less than 350 students, gathering personal data and retaining anonymity is challenging. While participants could opt out of including their email (and therefore withdrawing from a chance at winning the incentive), the data is still potentially exposing. Members of certain underrepresented groups at COA may have been reluctant to complete the survey as their responses would be less anonymous. The survey was completed by a strong representative of COA students, but we question whether the motivations of filling out the survey might skew results. Who is more motivated to fill out a food access survey—a student who has high food security or a student who routinely struggles to meet their needs? Was the incentive of a gift card more enticing to students of a lower economic status? We don't know the answers to these questions, but they are important to keep in mind when interpreting results.

Recommendations

This report presents a snapshot of food insecurity at COA, providing both concrete numbers and personal stories. It is clear that food insecurity is just as prevalent at COA as other schools, with a number of causes and outcomes interacting with one another. While there is always more data to collect and more conversations to begin, there are also a number of concrete steps COA—as an institution and as a community—should take to start addressing this problem.

I. New Programs and Policy Changes

These survey results demonstrate that certain policies at COA influence how and when

students eat. Additionally, the results shine a light on a lack of support systems for certain demographics of students. We encourage existing working groups to take the lead on developing the ideas presented below. These policy changes will require a lot of time, energy, care, and collaboration across various groups of our community—fortunately, COA's governance structure and campus culture facilitates grassroots change. From the survey results, we propose three policy areas that should be explored and developed.

Beginning a meal swipe sharing program

COA faces a meal swipes deficit. Students who have full meal plans often lose a swipe or two each week from not using them, while at the same time other students are skipping meals. Students on a full meal plan, a group which includes all first-years, have a variety of reasons for not using all of their swipes each week; some may prefer to skip breakfast or cook at home on occasion, others might be too busy to make it to the dining hall hours on time. This is not a unique phenomena to COA. Other schools have faced this same situation and responded by implementing meal swipe sharing programs.

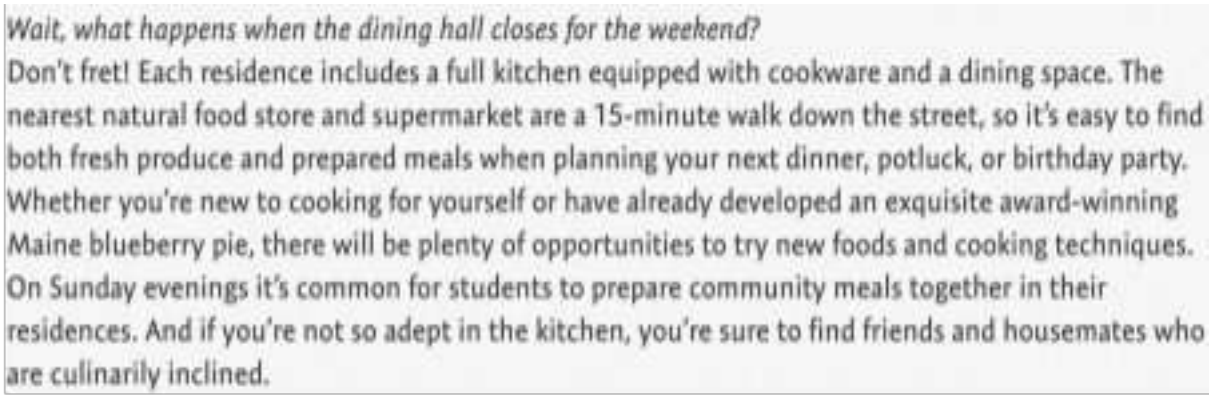
Under such a program, students who have extra swipes that they don't want to use, or cannot use, may donate them to a shared fund of swipes which is accessible to anyone. Students can draw from this fund anonymously whenever needed. Besides being the most popular potential reform included in the survey, meal swipe sharing programs have also proven to be effective at other institutions. A nonprofit named Swipe Out Hunger partners with universities to develop swipe sharing programs, and FAWG's brief interactions with the organization have left a great impression.

When designing a meal swipe sharing program fitted to COA's unique system, it is important to understand that COA's current meal swipe deficit subsidizes the prices that other people pay in TAB—namely students with a declining balance, professors, and visitors. It may be possible to design a sharing program that avoids raising prices for those groups, but if not, those working to implement a sharing program should determine whether those increased prices would be worth the changes.

Bridging mealtime gaps: weekends and busy schedules

The lack of weekend options for food on-campus sets COA apart from just about any other school. To take other institutions in Maine for example, the dining halls of Bates, Bowdoin, Colby, Husson, Saint Joseph's College, Unity, UMaine and University of Southern Maine all offer either full or partial service on the weekends. However, survey respondents and ACM participants were hesitant about the idea of opening TAB on the weekends. As the screenshot from the COA website below shows, the fact that students come together to cook on the weekends is understood by many to be an asset for the community, instilling self-reli-

ance and communal ties. Still, it cannot be ignored that many international students, Pell Grant recipients, and students who live on campus skip meals often on the weekends. If a student doesn't know how to cook, lacks the time to cook due to their course load or work schedule, or cannot afford to buy ingredients from the store, they will not have access to sufficient, nutritious, appropriate food for two entire days each week. Communal ties and self-reliance cannot be built on empty stomachs. Clearly some sort of weekend options are needed.



Wait, what happens when the dining hall closes for the weekend?
Don't fret! Each residence includes a full kitchen equipped with cookware and a dining space. The nearest natural food store and supermarket are a 15-minute walk down the street, so it's easy to find both fresh produce and prepared meals when planning your next dinner, potluck, or birthday party. Whether you're new to cooking for yourself or have already developed an exquisite award-winning Maine blueberry pie, there will be plenty of opportunities to try new foods and cooking techniques. On Sunday evenings it's common for students to prepare community meals together in their residences. And if you're not so adept in the kitchen, you're sure to find friends and housemates who are culinarily inclined.

From the 'Dining' page of the COA website. The lack of weekend meals is a common area of concern for prospective students and their parents.

Besides opening TAB on the weekends, a solution which the survey and ACM responses indicate might be controversial, there are other ways the school can provide weekend food options. A number of respondents suggested opening Sea Urchin on the weekends during meal times, a less expensive option than TAB. Another option would be to offer pre packaged to-go meals throughout the entire week, including weekends, as other schools do. Offering to-go meals has the additional benefit of addressing another concern voiced in the survey and at ACM: that of too little time. Compared to the dining hall hours at other schools, which usually serve food continuously throughout the day, TAB's hours are structured around three mealtime blocks, ranging from one to two hours long, which excludes students whose schedules conflict with those periods. Pre-packaged meals and/or increased dining hall hours will allow more students, particularly vulnerable groups such as students who work many hours per week, to access food. One final option would be for COA to support and expand the formal and informal community meals that already occur on and off-campus; students are already responding to the hunger they see amongst their peers by hosting community meals, typically advertised through community emails. Supporting these meals with funds and physical spaces would also foster a sense of community and keep with COA's traditional relationship with food.

Regardless of which solutions might be best, FAWG believes it is possible for food to be available on the weekends without compromising COA's unique emphasis on self-reliance

and community. A group working to introduce weekend food options should consult with a wide variety of groups and stakeholders on campus, recognize the importance of COA's unique approach to weekend food, and be willing to raise awareness of the hidden costs to student wellbeing associated with the current system.

Introducing support systems during school breaks

Jennifer Jones, executive director of the Bar Harbor Food Pantry, sees COA students using the pantry most often during the school's winter and summer breaks. Our survey data confirm that breaks are a problem for food security. Especially for international students, obtaining sufficient food during these periods is a struggle. Winter break may be the most difficult time for students remaining in Bar Harbor. With TAB closed for six weeks straight, students must transition to preparing their own meals full time. Groceries in Bar Harbor are expensive, and during the winter utility bills require a large part of budgets. Without parental support or other supplements to income, bank accounts dwindle and some students must turn to the food pantry for help.

It is apparent that portions of the student body struggle during breaks, but more work needs to be done to ascertain what solutions might be helpful. FAWG encourages anybody working on this issue to dive deeper into exactly why students struggle to obtain food during school breaks. The barrier could be related to a lack of time, a lack of knowledge about cooking, financial difficulties, or a combination of all three and other issues. Effective solutions therefore might not even appear to be related to food on the surface. Keeping the dining hall open during the winter break may help, but it is also possible that an increase in wages on campus during breaks may also be effective. Consulting with international students who tend to remain on campus during breaks, be it through a survey, interviews, or focus groups, would be a good first step towards investigating this problem.

II. Campus Groups

Working groups, Student Life, the Board of Trustees, and administration should incorporate food insecurity into their focus areas.

COA is fortunate to have many groups on campus, institutionally and informally, focusing on improving the experiences of students in demographics vulnerable to food insecurity. We hope this report can provide these groups a solid foundation from which to continue to advance their various goals. Food insecurity among students directly affects the missions of the Diversity, Equity and Inclusion Working Group, Student Persistence, COA^2, HeLa-Cell, Share the Harvest, Student Life, and more. Below are three concrete steps Student Life can take, for example, that would help address the issues raised in this report.

Continue collecting data by incorporating questions from this survey into the Health and Wellness survey.

Our data provide a snapshot of food insecurity and access at COA at a distinct moment in time. As COA begins to tackle this problem on multiple fronts, many working groups would benefit from accessing and analyzing the progress of these data each year. Fortunately, Student Life already surveys the student body annually through the Health and Wellness Survey, which collects data on mental and physical wellbeing. Tracking the data points included in this report—data on food security, types of meal plans used, number of meal swipes unused, hours students work, economic status, and so on— over time would be helpful for any individual or group working on this problem. We hope our survey establishes a good baseline to expand on in the future. Additional data points should include students' occupation (working in TAB, RAs, working in town, etc.), as well as race, gender, and sexuality, to enable cross-tabulations between food insecurity rates and these demographics, something our data lacked.

Develop resource guides for students that increase awareness of food assistance programs available and reduce stigma that prevents students from utilizing the programs.

Some students are not aware of the resources available to them—such as the Bar Harbor Food Pantry, SNAP/EBT, and OpenTable MDI—and many students who are aware of these services do not feel comfortable using them. For Student Life, one simple first step towards increasing awareness of services and reducing stigma could be to develop informational literature. Pamphlets detailing how to navigate the byzantine process of applying for SNAP as a college student should be distributed widely. Posters should be displayed around campus showing the food pantry's hours and location, as well as the steps to using it. Other materials should focus on problematizing the "Starving College Student" cliché. Importantly, it must be emphasized in these materials that fresh, healthy, culturally-appropriate food is a human right, and that students should not feel ashamed about using these services. Although developing these materials may seem like a small and inconsequential step, the fact remains that food insecurity is a prevalent but little talked about problem at COA; by raising awareness of the issue, COA as an institution can signal that it is taking the problem seriously and working to address it.

COA^2 Peer Mentors and RAs should receive training and information about food insecurity.

Peer Mentors and RAs can be incredible assets for addressing food insecurity at COA. Peer Mentors are tasked with providing support to students who identify as minorities, first generation college students, and/or low-income, which are the same groups identified in

our findings and in the broader research on college hunger as being vulnerable to food insecurity. Given their role as trusted confidantes for these students, Peer Mentors are well positioned to offer information and guidance to their mentees on food security matters. To give a hypothetical example, if a mentee reaches out to their Peer Mentor about not having enough to eat, their Mentor could connect them to the food pantry and even accompany them on their first pantry visit, walking them through the process and overcoming the first (and hardest) step of reaching out for help. RAs are similarly poised to help students in need. Students living on campus face challenges of getting enough food on the weekends. RAs can assist students with learning how to cook, be trained to identify signs of hunger in the dorms, and disseminate information to their residents regarding the resources available to them. Respected members of the COA community like RAs and Peer Mentors openly discussing food assistance programs may also help reduce the stigma around using SNAP and the food pantry.

III. Systems Change

It must be recognized that food insecurity at COA is an issue entangled with systems of oppression, policies at the governmental and school levels, and other issues on and off campus. Of course, COA cannot eradicate the racism embedded in the food system, for example, nor can it restore the social safety nets that once prevented families from falling into destitution. On the other hand, COA does have the power to end hunger on campus through institutional and cultural changes. We would like to conclude this report by emphasizing that, although the solutions we outlined are important, any individual or group working on food insecurity at COA must, at the same time, connect their work to broader changes that are needed.

We encourage anyone reading this report to consider not only workshops for cooking skills but also raises for work study wages. We encourage readers to design a meal swipe sharing program and also advocate for increasing financial aid. We encourage readers to start a campus food pantry and pressure the administration to tap into the college's endowment, now in the tens of millions, to make the pantry unnecessary in the future. We encourage readers to think about the issue of time, which HeLaCell brought to the community's attention; if students could spend more hours per day cooking and eating instead of rushing from one commitment to another, how many more stomachs would be full? Would a student union be helpful in facilitating these open questions? How might COA become a model for other institutions to follow in regards to hunger, like it is for so many other areas? How can we begin to end hunger at COA? This report has hopefully been the first step of many in that direction.

Endnotes

1 "Food Insecurity Better Information Could Help Eligible College Students Access Federal Food Assistance Benefits." United States Government Accountability Office, 2018.

2 US Census Bureau. "More Than 76 Million Students Enrolled in U.S. Schools." The United States Census Bureau, June 4, 2019.

Goldbrick-Rab, Sara, Katherine Bronton, and Emily Brunejes. "Expanding the National School Lunch Program to Higher Education." Wisconsin Hope Lab. 2016.

3 "College Student Demographics: Postsecondary Success." Bill & Melinda Gates Foundation - Postsecondary Success, November 7, 2019.

4 Bohanon, Mariah "New Data Shows Most Students Are on Their Own— and Struggling— Financially." INSIGHT Into Diversity, February 20, 2018.

5 Goldbrick-Rab, Sara, Katherine Bronton, and Emily Brunejes. "Expanding the National School Lunch Program to Higher Education." Wisconsin Hope Lab. 2016.

6 ibid.

7 ibid.

8 Goldbrick-Rab, Sara, Christine Baker-Smith, Vanessa Coca, Elizabeth Looker, and Tiffani Williams. "College and University Basic Needs Insecurity: A National #RealCollege Survey Report." Temple University, 2019.

9 Gundersen, Craig, Coleman-Jensen James P. Ziliak, Gundersen, Carmichael, Skalicky, Cook, Hernandez, et al. "Food Insecurity And Health Outcomes." Health Affairs, November 1, 2015.

10 "Measurement: What is Food Security and Food Insecurity?" USDA Economic Research Service. 2019. https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/measurement.aspx

11 "US Adult Food Security Survey Module" USDA Economic Research Service. 2012. https://www.ers.usda.gov/media/8279/ad2012.pdf

Goldbrick-Rab, Sara, Katherine Bronton, and Emily Brunejes. "Expanding the National School Lunch Program to Higher Education." Wisconsin Hope Lab. 2016.

Appendix of Survey Questions

For each statement below, please select yes or no. In the past 30 days...

	Yes		No		Total
I worried whether my food would run out before I got money to buy more.	30%	53	70%	121	174
I couldn't afford to eat balanced meals.	31%	54	69%	122	176
The food that I bought just did not last and I did not have the money to buy more.	18%	31	82%	145	176
I cut the size of meals or skipped meals because there was not enough money for food.	31%	55	69%	120	175
I ate less than I felt I should because there was not enough money for food.	26%	46	74%	130	176
I was hungry but did not eat because there was not enough money for food.	17%	30	83%	145	175
I cut the size of meals or skipped meals because there was not enough money for food (3 or more times).	19%	33	81%	143	176
I lost weight because there was not enough money for food.	6%	11	94%	164	175
I did not eat for a whole day because there was not enough money for food.	7%	12	93%	164	176
I did not eat for a whole day because there was not enough money for food (3 or more times).	3%	6	97%	168	174

What is your current meal plan? Please select one:

15 meals/week	33%	59
10 meals/week	14%	24
10 meals/week + Declining Balance	1%	2
5 meals/week	6%	11
5 meals/week + Declining Balance	7%	13
Declining Balance	34%	60
I do not have a meal plan	5%	8
	Answered: 177	
	Skipped: 0	

If you do have a meal plan, how often do unexpectedly run out of meal swipes? Please select one:

Every week	2%	3
A few times a month	5%	8
A few times a term	13%	21
Never	47%	79
I do not have meal swipes	34%	57
	Answered: 168	
	Skipped: 9	

On average, about how many unused meal swipes do you have at the end of each week? Please select one:

0	32%	53
1	7%	12
2	11%	18
3	5%	9
4	5%	9
5 or more	4%	7
I do not have meal swipes	35%	59

Answered: 167

Swiped: 10

Do you regularly rely on leftovers from TAB or Sea Urchin as a source of food? Please select one:

Always	7%	11
Often	20%	33
Sometimes	28%	47
Rarely	27%	46
Never	19%	31

Answered: 168

Skipped: 9

Do you skip meals on the weekend when TAB is closed? Please select one:

Always	5%	9
Often	19%	31
Sometimes	28%	46
Rarely	21%	35
Never	28%	46

Answered: 167

Skipped: 10

Do you struggle to obtain food over the school breaks (winter, spring, and summer)? Please select one:

Always	3%	5
Often	7%	11
Sometimes	15%	25
Rarely	28%	46
Never	48%	79

Answered: 166

Skipped: 11

Of the following resources, which have your heard of, would feel comfortable using, or have used in the past? Please check all that apply:

	I have heard of this resource		I would feel comfortable using this resource if I need to		I have used this resource in the past		Total
Bar Harbor Food Pantry	76%	118	40%	62	9%	14	155
Open Tabel MDI	51%	81	44%	70	52%	82	159
Supplemental Nutrition Assistance Program (SNAP)	85%	87	26%	26	1%	1	102
Ellsworth Food Pantry	75%	64	27%	23	0%	0	85

Answered: 163

Skipped: 14

With which of the following statements do you most agree? Please select one.

Food access is not a problem at COA	3%	5
Food access is somewhat of a problem at COA	50%	84
Food access is a problem at COA	37%	62
Food access is a serious problem at COA.	10%	17

Answered: 168

Skipped: 9

Would you like to see any of the following services or changes at COA in future? Please check all that apply.

Cooking workshops	48%	79
Budgeting workshops	44%	73
Information about available resources (Food pantries, SNAP benefits, etc.)	58%	96
The ability to share unused meal swipes with other students	91%	151
TAB open on the weekends	34%	56
Other (please specify in one or two short sentences)		17

Answered: 166

Skipped: 11

What year of college are you currently in (including schools previous to COA)? Please select one.

1st	32%	54
2nd	24%	41
3rd	18%	30
4th	23%	38
5th or more	2%	3
Graduate Student	1%	2

Answered: 168

Skipped: 9

What is your residency status? Please select one.

US Domestic Student	70%	119
International Student	30%	50

Answered: 169

Skipped: 8

Do you currently live on campus? Please select one.

Yes	52%	87
No	48%	81

Answered: 168

Skipped: 9

What is the highest level of education completed by your primary parent or guardian? Please select one.

Primary school or lower	0.6%	1
Some secondary/high school	3%	5
Secondary/high school diploma	11%	20
GED	0.6%	1
Some college/university	13%	21
College/university certificate or diploma	7%	12
Associate's Degree	1%	3
Bachelor's Degree	26%	43
Graduate Degree	36%	61
Other	0.6%	1
I don't know	0%	0
	Answered: 168	
	Skipped: 9	

Do you have work-study? Please select one.

Yes	85%	153
No	15%	25
	Answered: 168	
	Skipped: 9	

Are you also employed in addition to work-study? Please select one.

Yes	31%	52
No	58%	96
I do not have work study	11%	19
	Answered: 167	
	Skipped: 10	

How much do you work per week, (including work-study and other jobs you may have)?

0 hours per week	5%	9
1 to 10 hours per week	45%	74
11 to 20 hours per week	37%	61
21 to 30 hours per week	11%	18
More than 30 hours per week	2%	4

Answered: 166

Skipped: 11

Are you currently a full-time student (defined as being enrolled in three courses per term)? Please select one.

Yes	96%	160
No	4%	6

Answered: 166

Skipped: 11

How much of your personal income do you devote towards school-related expenses per term (tuition, lab fees, books)? Please select one.

None	14%	23
About one fourth	36%	59
About half	19%	31
About three fourths	17%	28
All of my income	15%	24

Answered: 165

Skipped: 12

Do you receive the Pell Grant (need-based financial aid)? Please select one.

Yes	54.22%	90
No	45.78%	76
	Answered: 166	
	Skipped: 11	

Do you have a disability or medical condition? Please check all that apply:

I do not have a disability or medical condition.	68%	109
Learning disability (dyslexia, etc.)	8%	13
Attention defecit hyperactivity disorder (ADHD)	9%	15
Autism spectrum disorder	1%	2
Physical disability (speech, sight, mobility, hearing, etc.)	1%	2
Chronic illness (asthma, diabetes, autoimmune disorder, cancer, etc.)	7%	11
Psychological disorder (depression, anxiety, etc.)	23%	37
Other (please specify)		5
	Answered: 160	
	Skipped: 17	

Do you have children? Please select one.

Yes	0%	0
No	100%	165
	Answered: 165	
	Skipped: 12	

Do you have any comments about the survey or about food generally at COA that you want Food Access Working Group to know? Please type in your response.

Answered: 65

Skipped: 112

Do you have any questions for the Food Access Working Group? Please type in your response.

Answered: 47

Skipped: 130

Do you have any suggestions for the Food Access Working Group (areas to focus on, problems not addressed in the survey, etc.?) Please type in your response.

Answered: 53

Skipped: 124