



IS THERE ANYTHING
THAT HAS PREVENTED
YOU FROM ACCESSING FOOD
OR DRINK AT CAMPUS?

WHAT COULD CHANGE
ABOUT FOOD
ON CAMPUS, WHAT WOULD
IT BE?
(BIG OR SMALL?)

2021 NATIONAL STUDENT FOOD INSECURITY REPORT



MEAL EXCHANGE

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MEAL EXCHANGE

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Introduction

Inadequate or insecure access to food, referred to as food insecurity, is a serious issue impacting post-secondary students in Canada (Silverthorn, 2016). This includes the inability to access an adequate quality or quantity of food, or the uncertainty that one will be able to do so (Health Canada, 2020). Food insecurity negatively impacts the physical and mental health of students, as well as their academic performance (Hattangadi et al, 2021; Maroto, 2015). Those most at risk of food insecurity are households with low incomes and limited assets (PROOF, 2020).

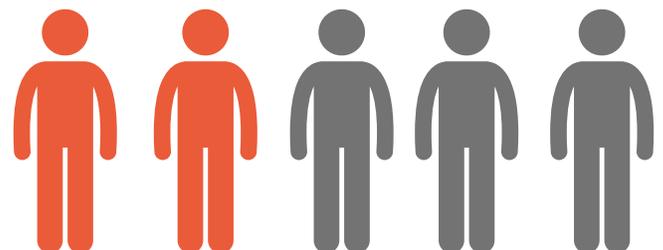
Prior to the COVID-19 pandemic, 1 in 8 households were food insecure in Canada (PROOF, 2020). The rate of food insecurity among post-secondary students is reported to be higher than among the general population, at almost 2 in 5 students (Silverthorn, 2016). Since the pandemic, food insecurity has been increasing in prevalence among the Canadian population. In a Statistics Canada survey during May 2020, 1 in 7 households reported experiencing food insecurity, representing a 39% increase from pre-pandemic data (Statistics Canada, 2020a).

Demand on community food organizations supporting people affected by food insecurity also increased significantly during the pandemic (Gooch et al, 2021).

As post-secondary institutions closed or limited campus services, students were faced with a sudden impediment in accessing former resources, including food banks, campus food services, and residence housing (Klemmensen, 2021). Unemployment has impacted youth disproportionately due to closures in the service sector and organizations laying off younger and newer employees first (Ricci, 2021). Youth unemployment rose by 6% from 2019 to 2020, almost double the rate among older Canadians (Statistics Canada, 2021). As a result, student food insecurity has likely been exacerbated during the pandemic (Laban et al, 2021; Meal Exchange, 2021).

During October 2021, Meal Exchange - a national charity - conducted a survey of students attending post-secondary institutions across Canada. The goal was to better understand how students have been impacted by food insecurity during the pandemic and to inform programs and initiatives to improve student access to food. This report assesses these survey responses.

In 2016, almost 2 in 5 students were food insecure



Survey Design and Distribution

The *2021 Student Food Experience Survey* was designed by Meal Exchange to assess how students have been impacted by food insecurity during the pandemic and to inform programs and initiatives to improve student access to food. The online survey was conducted from October 4th - 29th, 2021. Completion of the survey was voluntary and anonymous.

As an incentive for participation, respondents had the option to submit their contact information in a separate form for a chance to win one of many \$25 grocery gift cards. The survey was disseminated to students via student unions, student groups, campus newsletters, listservs, and social media. The survey was also shared with university employees, including professors, program coordinators, and residence services. While the survey was open to all students at Canadian post-secondary institutions, Meal Exchange specifically targeted students at the following 13 campuses:

- University of Victoria
- University of Lethbridge
- University of Calgary
- Lakehead University
- University of Waterloo
- University of Guelph
- McMaster University
- University of Toronto-Mississauga
- Queen's University
- University of Ottawa
- Carleton University
- Dalhousie University
- Mount Saint Vincent University



The survey was available in both English and French. The survey included 34 questions collecting socio-demographic details and information on food access and food security from respondents. Socio-demographic questions included: enrolment status, program type, gender, sexual orientation, age, race, living arrangement, employment status, and financial sources for education and basic necessities (see Appendix 1 for Demographics of Student Respondents). Questions to evaluate food access explored the following: food insecurity, use of campus meal plans, where food was regularly accessed, ways to improve food access, and impacts of COVID-19 on their life and their relationship with food.

Survey Limitations: Firstly, the *2021 Student Food Experience Survey* was self-reported. The voluntary and anonymous nature of the survey means that there are potential sources of bias that may have impacted the results. There is a possibility of having selection bias; since the study was distributed through student networks, the sample population for this survey may not be completely representative of the student body. Additionally, since the study was conducted on only 6167 students on 13 campuses, the results are not statistically significant to represent overall food insecurity prevalence rates among post-secondary students. Lastly, due to the small financial incentive offered upon completion of the survey, food insecure students may have been more likely to respond to the survey. As a result, the percentage of food insecure students may be over-reported, leading to an overestimation in the food insecurity rates among our study populace.

Food Insecurity Analysis: Rates and status of student food security were calculated based on six questions adapted from the Household Food Security Status Module found in the *Canadian Community Health Survey (CCHS)* (see Table 1). These six questions were asked in reference to two time frames: the previous academic year (2020/21) and the current semester (Fall 2021). This method of assessing food security status was also used in Meal Exchange’s 2016 *Hungry for Knowledge* study (Silverthorn, 2016). Students were asked to answer the following questions with Never, Sometimes, Often, or Always:

The survey respondents were categorized into one of three categories of food insecurity status: Food Secure, Moderately Food Insecure, and Severely Food Insecure. Food security status was calculated by coding responses to the six food access questions. Affirmative responses (Sometimes, Often, and Always) were coded as 1, while negative responses (Never) were coded as 0. A tallied score was then assigned to each survey respondent. A score of 0-1 was coded as Food Secure, 2-4 as Moderately Food Insecure, and 5-6 as Severely Food Insecure. Table 2 from the *Hungry for Knowledge* study details how each status is defined.

Table 1: Questions used to assess food insecurity.

Have any of the following situations applied to you during this semester so far (Fall 2021)? Did any of the following situations apply to you during the previous academic year (2020/21)?
1) I worried my food would run out before I got money to buy more 2) The food that I bought just didn't last, and I didn't have money to buy more 3) The cost of food prevented me from eating balanced or nutritious meals 4) I regularly relied on a few low-cost foods in order to avoid running out of money to buy more food 5) I skipped meals because I didn't have enough money for food 6) I did not eat for an entire day because I didn't have enough money for food

Table 2: Definition of each food security status (Silverthorn, 2016).

Status	Definition
Food Secure Score: 0-1	Sufficient and adequate access to food that meets quality and quantity needs.
Moderate food insecurity Score: 2-4	Significant food access issues, including income-related concerns and reduced quality and/or quantity.
Severe Food Insecurity Score: 5-6	Extreme food access issues, including income-related concerns and reduced quality and/or quantity

Canadian Post-Secondary Student Food Insecurity



Image 1. 2019 National Student Food Summit.

Student Food Insecurity Rates

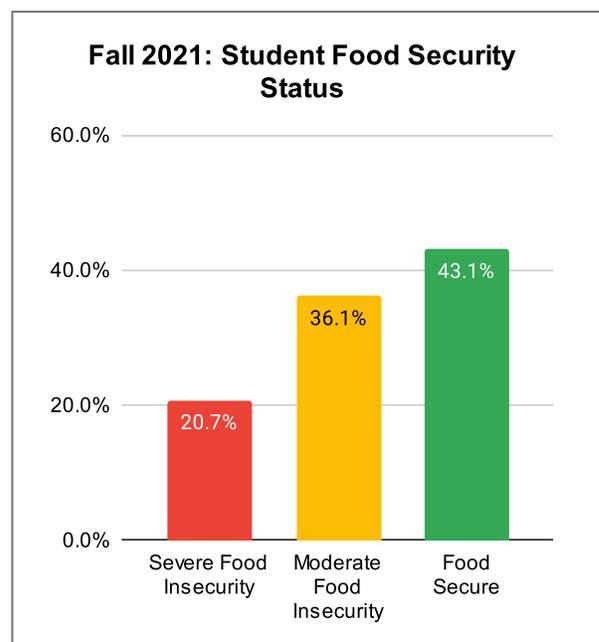
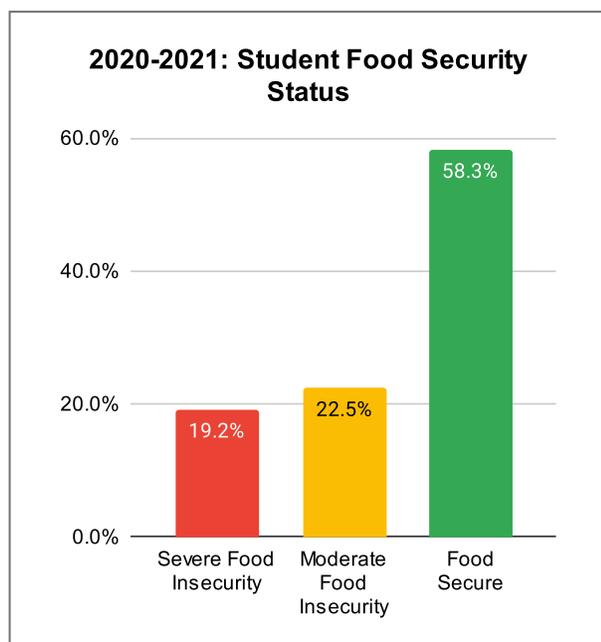


Figure 1: Overall student food security rates. Figure 1a: Student food security rates during the 2020-2021 academic year. Figure 1b. Student food security rates during Fall 2021.

Survey findings indicate that food insecurity continues to be a serious issue facing post-secondary students in Canada, which has been exacerbated during the COVID-19 pandemic. Rates of food insecurity among surveyed students have increased since the last multi-campus survey of post-secondary students, the 2016 *Hungry for Knowledge* study, which reported that 39% of students surveyed at 5 Canadian post-secondary institutions were food insecure (Silverthorn, 2016). In the 2020/2021 academic year, 41.7% of respondents faced some level of food insecurity (see Figure 1a). This rate also increased from 2020/2021 to Fall 2021. In Fall 2021, 56.8% of survey respondents faced some level of food insecurity (see Figure 1b). These survey results also show an increase in severe food insecurity, at 19.2% in 2020/2021 and 20.7% in Fall 2021, in comparison to 8.3% in 2016 (Silverthorn, 2016).

In Fall 2021, 56.8% of students surveyed experienced food insecurity

Of the six food access experiences used to determine food insecurity, the factors most commonly experienced by students in Fall 2021 were: the cost of food prevented me from eating balanced or nutritious meals (60.4% of respondents), and I regularly relied on a few low-cost foods in order to avoid running out of money to buy more food (55% of respondents). The least common experience faced by students was I did not eat for an entire day because I didn't have enough money for food (16.5% of respondents) (see Figure 2a). In addition to these six questions, students were also asked how often students had to sacrifice buying food in order to pay for essential expenses, which 25.6% of respondents experienced (see Figure 2b).

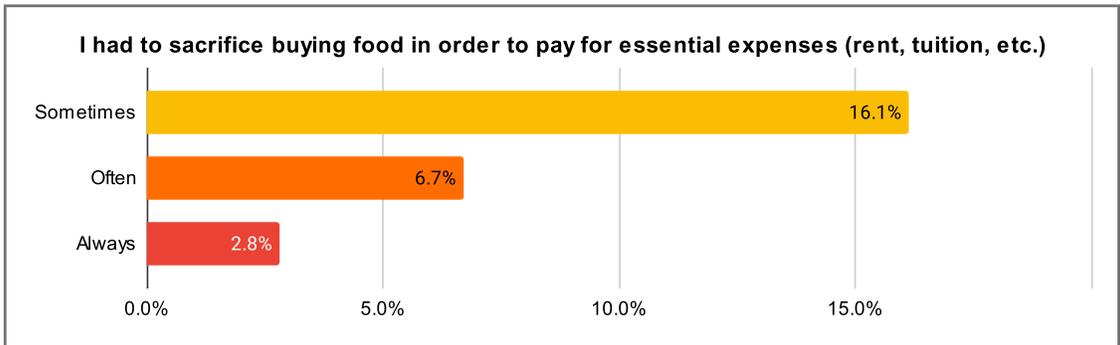
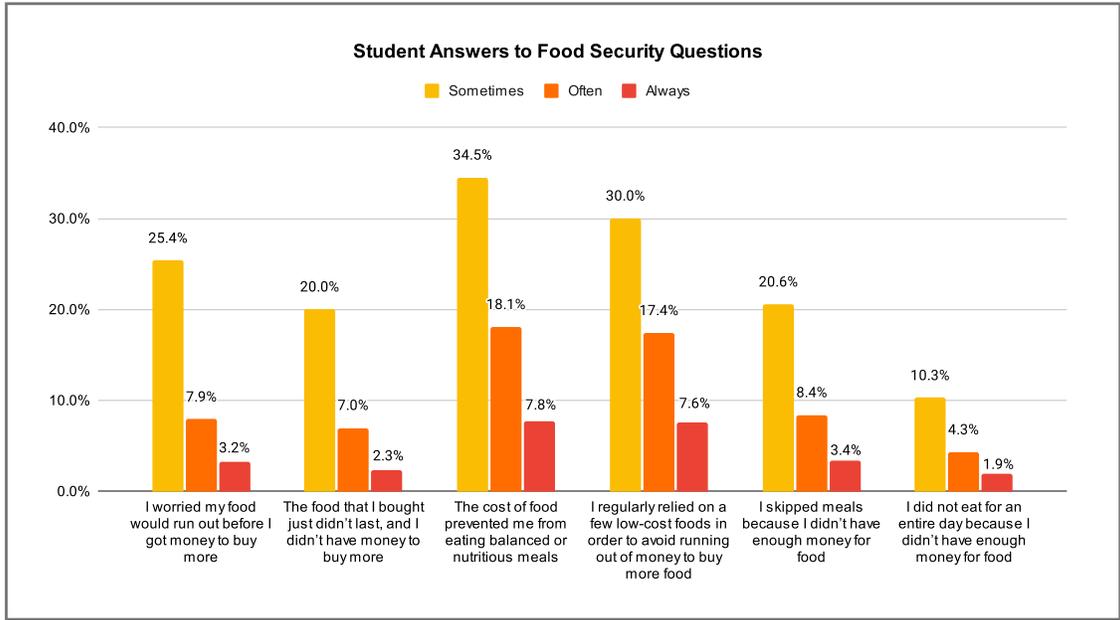


Figure 2: Breakdown of student answers to food access questions derived from the Household Food Security Status Module. Figure 2a. Food access questions used to determine the level of food insecurity. Figure 2b. How often students had to sacrifice buying food in order to pay for essential expenses.

Food Insecurity by Campus

While the survey was open to all students at Canadian post-secondary institutions, outreach was targeted at 13 universities. The rate of food insecurity increased from the 2020/2021 academic year to Fall 2021 at all of the universities surveyed (see Figure 3). In 2020/2021, the highest rates of food insecurity were observed at the University of Lethbridge at 70.1% of students, which increased to 81.4% in Fall 2021.

The next highest rates of food insecurity were observed at Lakehead University at 67.3% in 2020/2021, which increased to 73.8% in Fall 2021. In 2020/21, the lowest rates of food insecurity were observed at the University of Waterloo and Queen's University, each at 29%. These rates increased for both institutions in Fall 2021, to 44.9% and 44.1%, respectively.

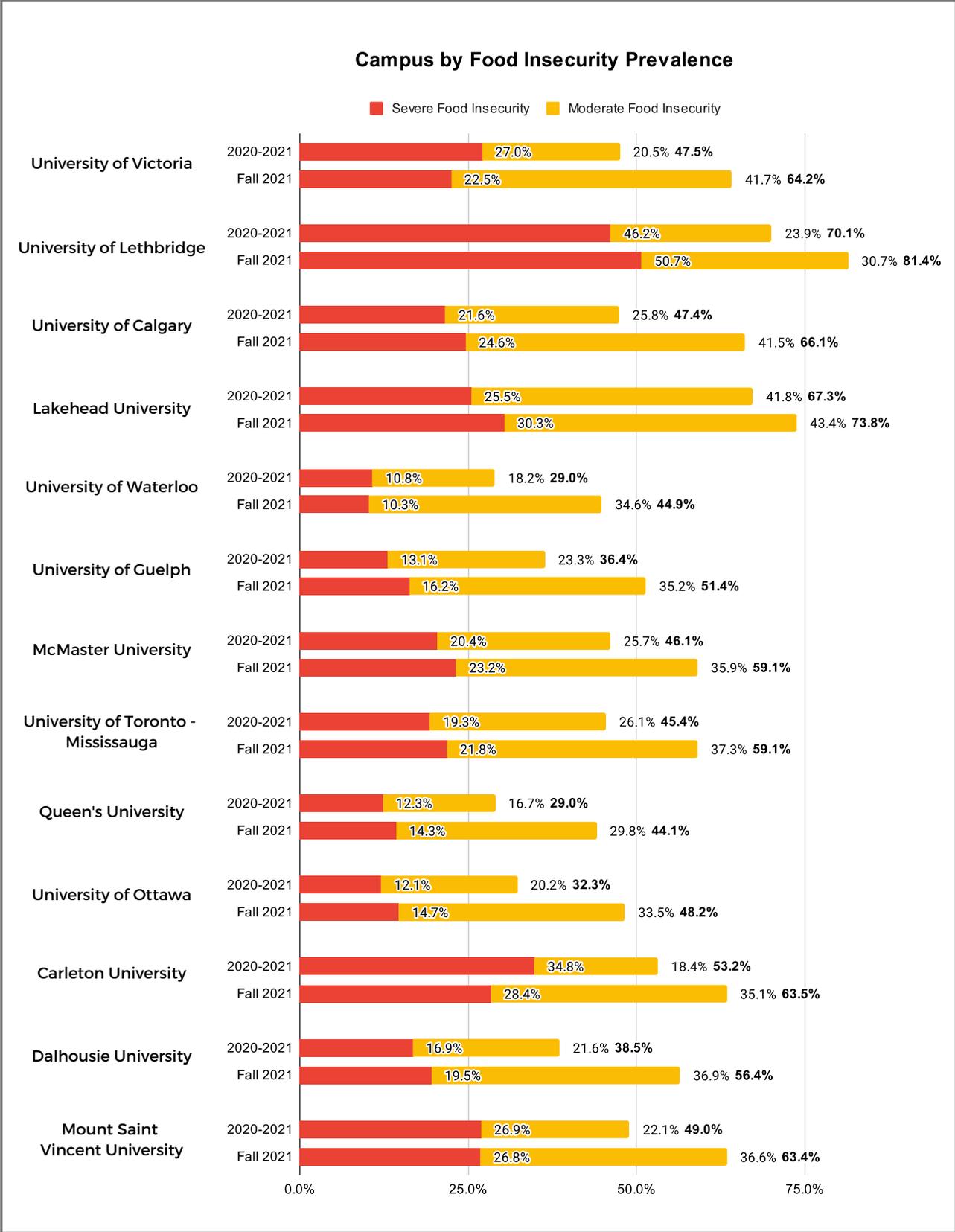


Figure 3. Rates of student food insecurity, including moderate and severe food insecurity, at 13 Canadian post-secondary institutions during the 2020-2021 academic year and Fall 2021.

Student Food Insecurity by Demographics

To better understand the risk of food insecurity among various student demographics, food insecurity prevalence rates were compared to demographic factors (age, gender identity, sexual orientation, ethnic/racial identity, etc). Prevalence rate calculations were based on the number of respondents who completed both the Household Food Security Module for Fall 2021 and each particular demographic question.

Age: The rate of food insecurity was highest among those aged 30-34 (4.1% of module respondents; n=211), with 72.5% facing some level of food insecurity; 43.1% were moderately food insecure and 29.4% were severely food insecure (see Figure 4). The second-highest level of food insecurity was among those aged 25-29 (12.4% of module respondents; n=644) with 66.3% facing some level of food insecurity; 36.6% were moderately food insecure and 29.7% were severely food insecure. The third-highest level of food insecurity was among those aged 35-39 (1.5% of module respondents; n=77) with 64.9% facing some level of food insecurity, including 29.9% moderately and 35.1% severely.

Gender Identity: The highest rate of food insecurity was seen among students who identify as Two-Spirit at 93.1% (0.6% of module respondents; n=29), including 13.8% experiencing moderate food insecurity and 79.3% experiencing severe food insecurity (see Figure 5). Among students who identified as Gender-Fluid (2% of module respondents; n=106), 84% were food insecure, including 29.2% moderately and 54.7% severely. Among Transgender students (1.9% of module respondents; n=99), 74.7% were food insecure, with 30.3% experiencing moderate food insecurity and 44.4% experiencing severe food insecurity. Overall rates of food insecurity were higher among men (21.9% of module respondents; n=1136) at 62.2%, in comparison to 54.7% among women (73.5% of module respondents; n=3814).

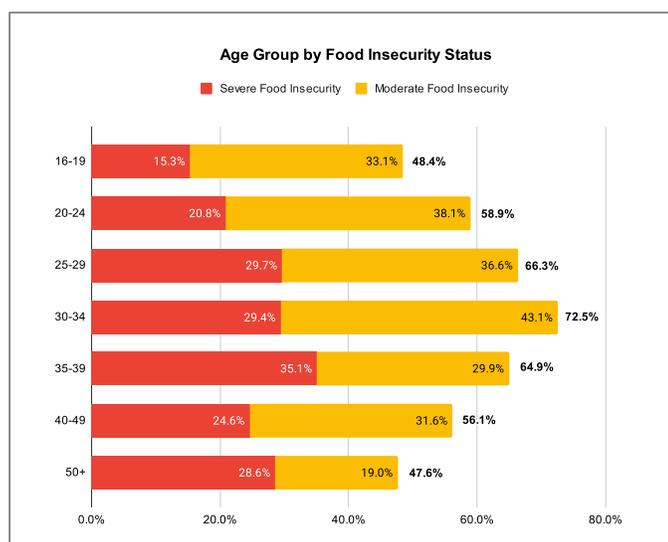


Figure 4: Breakdown of age group by food insecurity. Each bar represents the percentage of students experiencing levels of food insecurity within their age group. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that age group. For example, out of the respondents who were 16-19 years old, 48.4% were food insecure (15.3% severely food insecure and 33.1% moderately food insecure). Only includes respondents who also completed the Household Food Security Status Module.

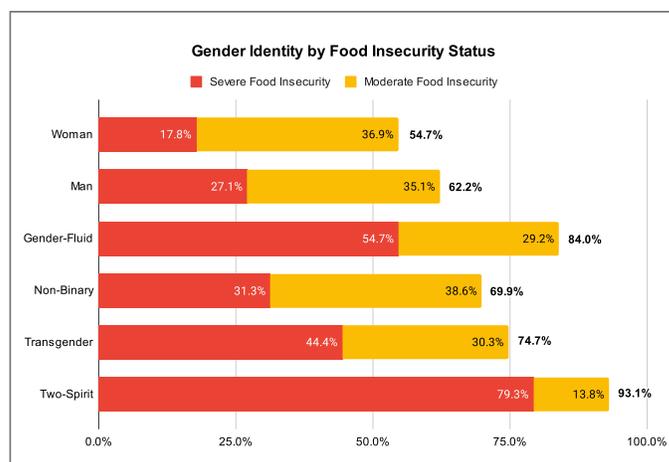


Figure 5: Breakdown of food insecurity status by gender identity. Each bar represents the percentage of students experiencing levels of food insecurity within that gender identity. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that gender identity. For example, out of the respondents who identified as women, 54.7% were food insecure (17.8% severely and 36.9% moderately). Only includes respondents who also completed the Household Food Security Status Module.

Ethnic/Racial Identity: The highest rate of food insecurity was seen among Indigenous students (3.8 % of module respondents, n=198) at 75.8%; of these students, 42.4% were moderately food insecure and 33.3% were severely food insecure (see Figure 6). Among Latinx students (3.7% of module respondents; n=192), 69.8% were food insecure, including 45.8% moderately and 24% severely. Similar rates of food insecurity were seen among Black students (5% of module respondents, n=257) at 69.6%, including 37% moderately and 32.7% severely. The lowest rate of food insecurity was seen among White students (59.2% of module respondents; n=3072) at 51.6% of respondents, including 34.7% moderately and 16.9% severely. In comparison to the general Canadian population, PROOF's 2017-2018 *Household Food Security in Canada* also found higher rates of food insecurity among Black and Indigenous households than other households (Tarasuk & Mitchell, 2020). This study also reported that White households had the lowest rates of food insecurity among racial/cultural demographics studied.

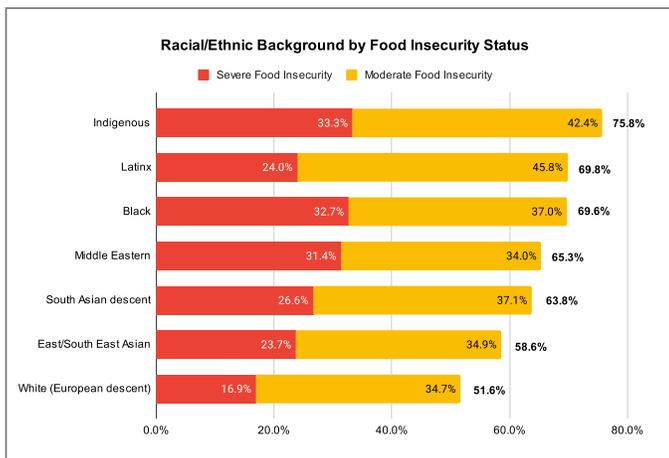


Figure 6: Breakdown of food insecurity status by racial/ethnic background. Each bar represents the percentage of students experiencing levels of food insecurity within their racial/ethnic group. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that racial/ethnic group. For example, out of the respondents who identified as Indigenous, 75.8% were food insecure (33.3% severely food insecure and 42.4% moderately food insecure). Only includes respondents who also completed the Household Food Security Status Module.

Sexual Orientation: Students were asked if they identified as queer, lesbian, gay or bisexual. Among these students, queer students (6.5% of module respondents; n=339) experienced the highest rate of food insecurity at 69.3%, with 40.1% experiencing moderate food insecurity and 29.2% experiencing severe food insecurity (see Figure 7). Similar rates of overall food insecurity were observed among students who identified as lesbian (3.5% of module respondents; n=180) or gay (2.5% of module respondents; n=130), at 66.1% and 66.2%, respectively. Severe food insecurity was highest among gay students at 30.8%. Among bisexual students (14.5% of module respondents; n=752), 63.7% were food insecure.

69.3% of students who identified as queer were food insecure

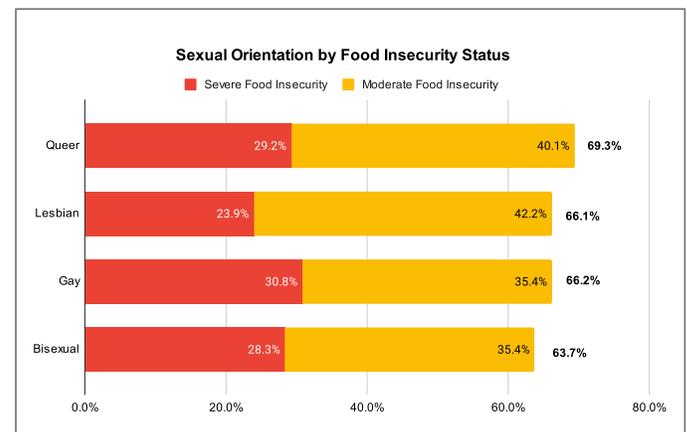


Figure 7: Breakdown of food insecurity status by sexual orientation. Each bar represents the percentage of students experiencing levels of food insecurity within that sexual orientation. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that orientation group. For example, out of the respondents who identified as gay, 66.2% were food insecure (30.8% severely food insecure and 35.4% moderately food insecure). Only includes respondents who also completed the Household Food Security Status Module.

Type of Student: The majority of students (67.2% of module respondents; n=3484) were studying in their home province; among these students, 52.3% were food insecure, including 17.7% severely and 34.6% moderately (see Figure 8). The rate of food insecurity was higher for those studying outside of their province (16.2% of module respondents; n=840) at 58.3%, including 35.2% moderately and 23.1% severely.

The rate of food insecurity was much higher among international students (15.4% of module respondents; n=800) at 74.5%, including 43.3% moderately and 31.3% severely. While only 0.7% (n=34) of students were on exchange/year abroad, the rate of food insecurity was highest among this group at 82.4%, including 41.2% moderately and 41.2% severely. Past research has also found that international students are particularly vulnerable to food insecurity due to high tuition fees and costs of living, as well as difficulties navigating the Canadian banking system and transferring money from their home country (Maynard et al, 2018a). On average, international students pay \$25,589.00 per year for a general arts degree in Canada, which is nearly four times the tuition of domestic students (CFS, 2021).

Living Arrangement: While only 0.3% of students surveyed (n=14) were experiencing precarious housing, 100% of these students were severely food insecure (see Figure 9). The most common living arrangement was with roommates (34.4% of module respondents; n=1782); of these students, 60.3% were food insecure, including 38.8% moderately and 21.5% severely. The lowest rate of food insecurity was among students living with family (22.3% of module respondents; n=1154) at 49.9%, including 32.8% moderately and 17.1% severely (see Figure 8). These results reflect the Government of Canada's findings in its *COVID-19 Pandemic: Financial impacts on postsecondary students in Canada* study, which found that students living alone or with roommates were about 20% more likely than those living with family to be very or extremely concerned about living and education-related finances due to COVID-19 (Statistics Canada, 2020b).

Single parents also made up only 0.9% of respondents (n=46) but 82.6% were food insecure, including 17.4% moderately and 65.2% severely. Of students with dependents and a partner (1.9% of module respondents; n=96), 71.9% were food insecure, including 25% moderately and 46.9% severely food insecure. This high rate of food insecurity among single parents is in line with findings from the *2017/2018 Canadian Community Health Survey*, which reported that the proportion of food insecure households was over twice as high for lone-parent families with children (Statistics Canada, 2020c).

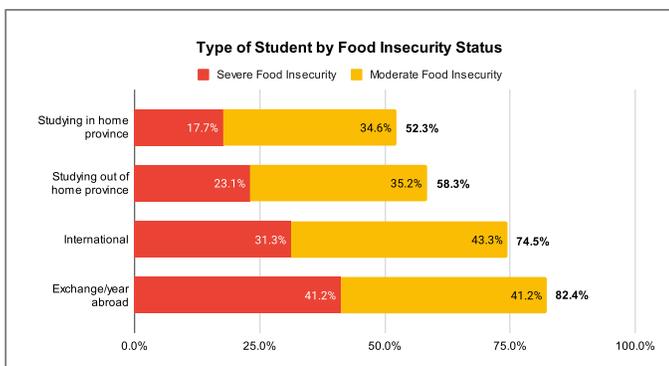
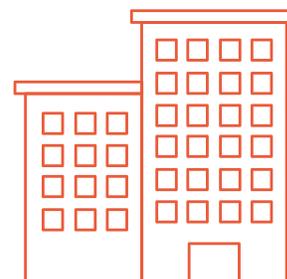


Figure 8: Breakdown of food insecurity status by student type. Each bar represents the percentage of students experiencing levels of food insecurity within their student type group. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that student type. For example, out of the respondents who were international students, 74.5% were food insecure (31.3% severely and 43.3% moderately). Only includes respondents who also completed the Household Food Security Status Module.



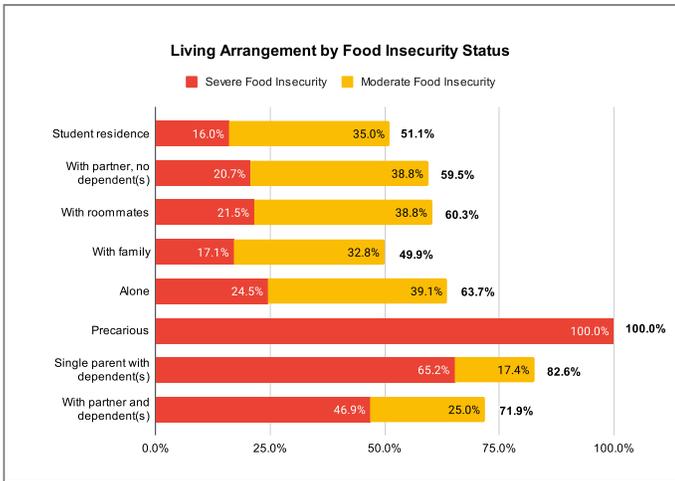


Figure 9: Breakdown of food insecurity status by living arrangements. Each bar represents the percentage of students experiencing levels of food insecurity within their living arrangement. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that arrangement group. For example, out of the respondents who were living with roommates, 60.3% were food insecure (21.5% severely food insecure and 38.8% moderately food insecure). Only includes respondents who also completed the Household Food Security Status Module.

Employment Status: The highest percentage of food insecurity, 69.4%, was seen in students that were unemployed and actively seeking work (14.6% of module respondents; n=758), including 39.2% experiencing moderate food insecurity and 30.2% experiencing severe food insecurity (see Figure 10). It is important to note that even the majority of students who were employed were also facing food insecurity, suggesting they were not earning enough income to cover their costs for food. Among students who were employed full-time (8.7% of module respondents; n=452), 64.6% were experiencing food insecurity, including 36.9% moderately and 27.7% severely. Among students who were part-time employed (44.1% of module respondents; n=2286), 60.4% were food insecure, including 37.1% moderately and 23.4% severely.

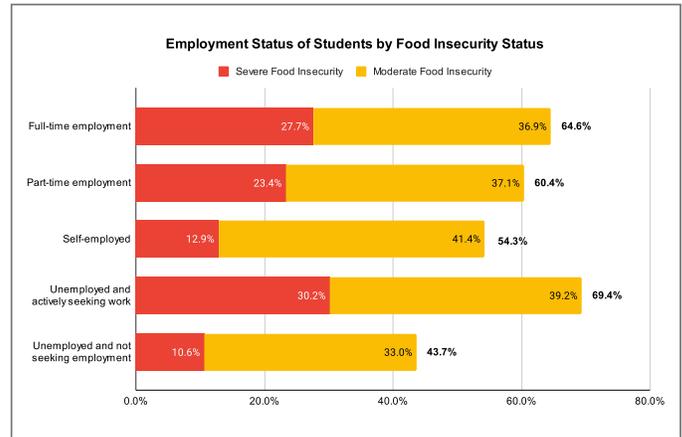


Figure 10: Breakdown of food insecurity status by employment status. Each bar represents the percentage of students experiencing levels of food insecurity within their employment group. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that employment group. For example, out of the respondents who were employed full-time, 64.6% were food insecure (27.7% severely food insecure and 36.9% moderately food insecure). Only includes respondents who also completed the Household Food Security Status Module.

Source of Funding: Students were asked to select their top 3 students' primary sources of funding for their education. The majority of students (60.8% of module respondents; n=3152) received help from their relationships to fund their education; however, the rate of food insecurity was less among students with this type of support - at 50.3% - than those who depend on borrowing funds or financial assistance (see Figure 11). The highest percentage of food insecurity, 74.8% (5% of module respondents; n=258) was seen in students relying on bank or other non-government loans to fund their education; of these students, 29.8% experienced moderate food insecurity, while 45% experienced severe food insecurity. Of students relying on credit cards as a primary source of funding, 69.2% (9.5% of module respondents; n=490) were food insecure, including 36.7% moderately and 32.4% severely.

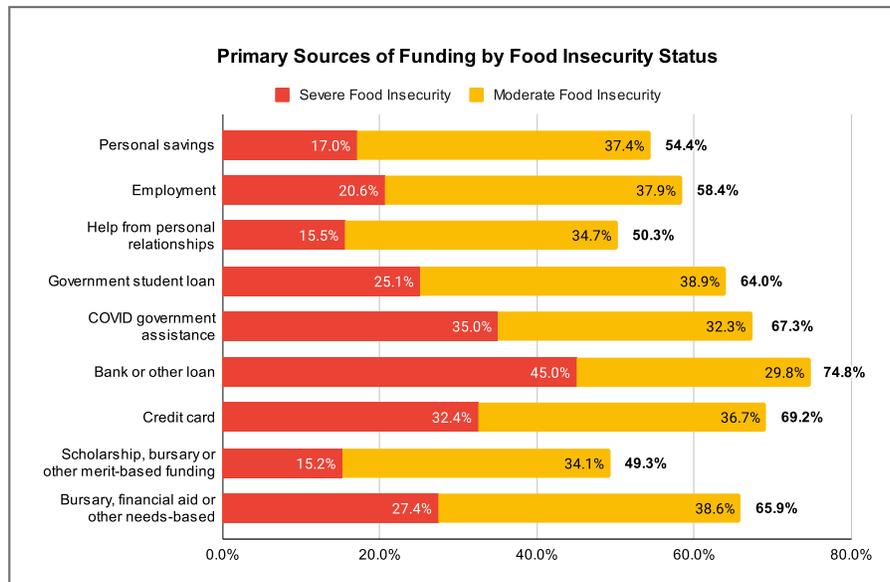


Figure 11: Breakdown of food insecurity status by student source of funding. Each bar represents the percentage of students experiencing levels of food insecurity within their funding source group. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that funding source. For example, out of the respondents who relied on personal savings for funding, 54.4% were food insecure (17% severely food insecure and 37.4% moderately food insecure). Only includes respondents who also completed the Household Food Security Status Module.

Almost one-third of students were depending on government student loans (30.6% of module respondents; n=1587) and of these students, 64% were food insecure, including 38.9% moderately and 25.1% severely. Of the students receiving bursaries or other need-based financial aid (9.8% of module respondents; n=508), 65.9% were food insecure, including 38.6% moderately and 27.4% severely. These results suggest that financial assistance to support students, whether it be from government or bursaries, may not be sufficient to cover the costs of education and basic needs, resulting in the majority of these students experiencing food insecurity.

64% of students on government loans were food insecure

A common issue precipitating food shortages among students is the mismatch between student loan amounts and tuition and living costs (Maynard et al, 2018a). The levels of financial assistance provided to students by government loans are also based on assumptions regarding parental financial support, which are not universally available for students, depending on their family circumstances, and therefore may be lower than required for living and education costs.

Impacts of COVID-19 on Students

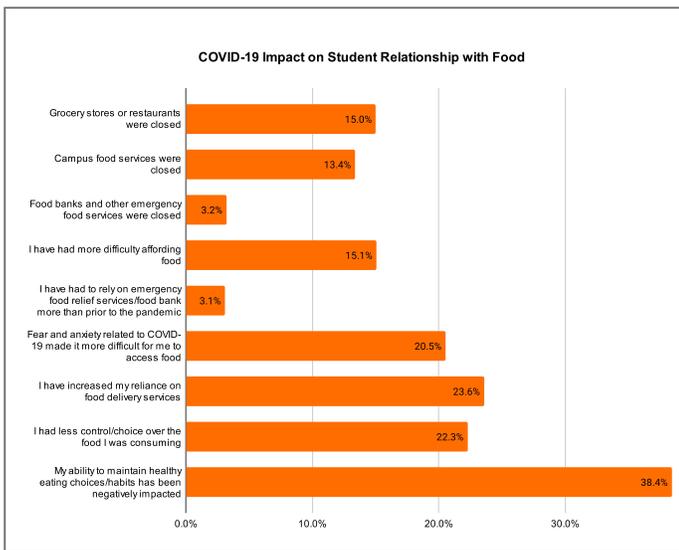


Figure 12: Percentage of how COVID-19 impacted students' relationships with food.

The COVID-19 pandemic has had an impact on student food security. When asked how COVID-19 has impacted their relationship with food, 38.4% (n=2370) reported that their ability to maintain healthy eating choices/habits has been negatively impacted (see Figure 12). In addition, 23.6% (n=1454) of students had to increase their reliance on food delivery services, 22.3% (n=1373) reported that they had less control over their food choices, and 20.5% (n=1266) experienced fear and anxiety related to COVID-19 that made it more difficult to access food.

38.4% of students reported that their ability to eat healthy has been negatively impacted by COVID-19

The survey results also showed that food insecurity was not the only issue that has been exacerbated by the pandemic. When asked how COVID-19 has impacted their life, students most often reported negative impacts on their health and wellbeing, including 58.2% on mental health (n=3590), 42.9% on physical health (n=2643), and 40.2% on eating habits (n=2482) (see Figure 13).

This survey indicates high levels of student food insecurity during Fall 2021, which may contribute to the majority of students reporting worse mental health during the COVID-19 pandemic. In general, adults living in food insecure households are more likely to experience a wide range of adverse mental health outcomes compared to those living in food secure households (Jessiman-Perreault & McIntyre, 2017). The pandemic may also exacerbate this; among the general Canadian population, those who have experienced food insecurity during the pandemic reported significantly worse mental health outcomes than food-secure households (Statistics Canada, 2020d).

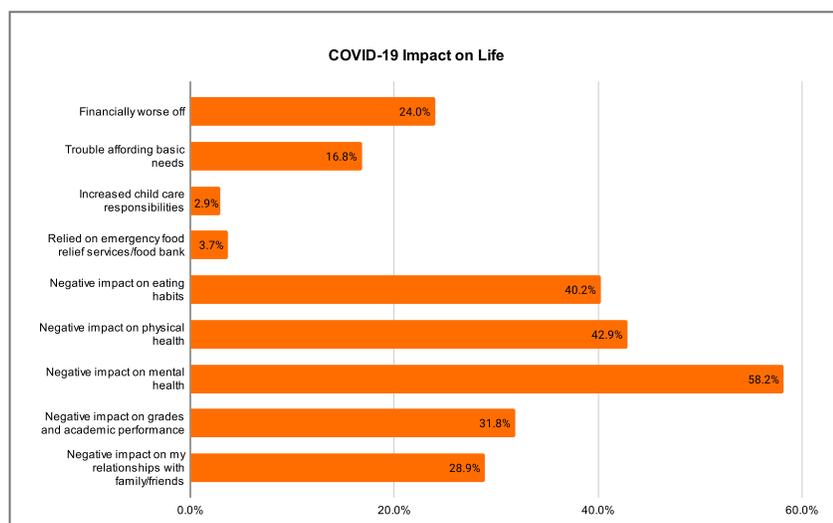


Figure 13: Percentage of how COVID-19 impacted student's overall life.

Student Food Experience



Image 2. 2019 National Student Food Summit.

Student Food Priorities & Preferences

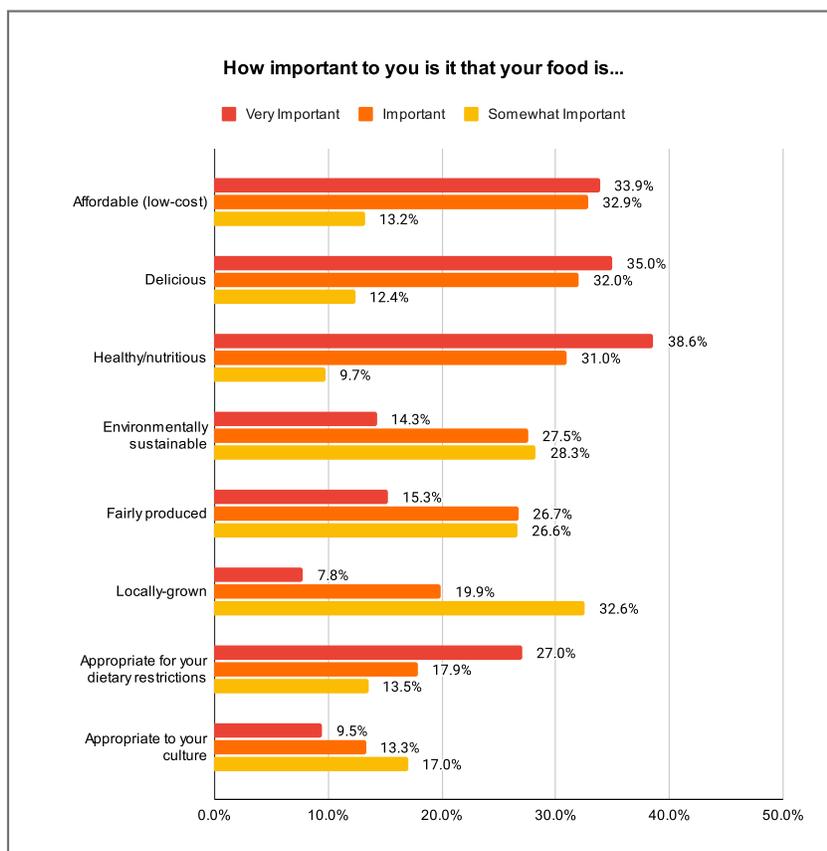


Figure 14: Percentage of student priorities for food by levels of importance.

Food Priorities: Students were asked to rate the level of importance of eight different factors of food they eat with Not important, Somewhat Important, Important, or Very Important. Affordability was rated as having some level of importance by 80% of students, followed by being delicious at 79.4% and healthy/nutritious at 79.3% (see Figure 14). Interestingly, healthy/nutritious was chosen most often to be very important by 38.6% of students, followed by delicious at 35%, and affordable at 33.9%.

Food Preferences: Student food preferences and restrictions may impact their access to food, particularly if there is limited availability of options that meet their needs.

When looking at the most common food restrictions and preferences, 15.9% of respondents (n=978) prefer vegetarian, 11.4% of respondents (n=702) prefer dairy-free, and 7.2% of respondents (n=446) prefer halal foods (see Figure 15).

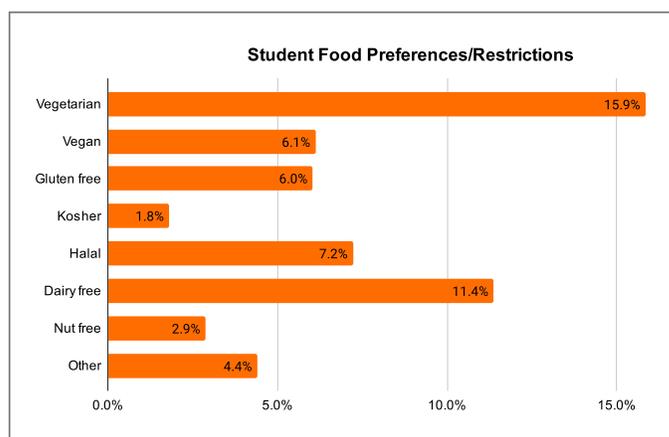


Figure 15: Percentage of students' food preferences/restrictions.

Student Food Access Locations & Meal Plans

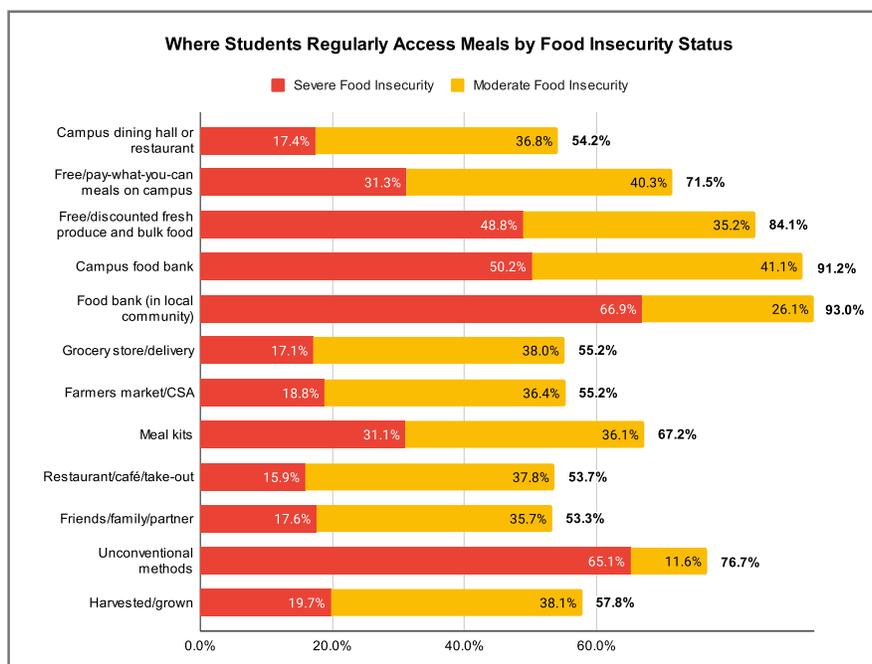


Figure 16: Breakdown of food insecurity status by where students accessed their meals. Each bar represents the percentage of students experiencing levels of food insecurity within the group where they accessed meals. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that group. For example, out of the respondents who regularly accessed meals via meal kits, 67.2% are food insecure (31.1% severely and 36.1% moderately).

Regular Food Access: Of the students regularly accessing campus food (51.6% of module respondents, n=2674), 54.2% were food insecure, with 36.8% moderately and 17.4% severely (see Figure 16). While only 2.7% (n=142) of students were regularly accessing food through community food banks, these students experienced the highest rate of food insecurity at 93%, including 26.1% moderately and 66.9% severely. Similar rates were seen among students accessing food from campus food banks (5.5% of module respondents; n=285) at 91.2% of those students experiencing food insecurity, including 41.1% moderately and 50.2% severely. Of students who were accessing free/discounted fresh produce and bulk food (7.5% of module respondents; n=389), 84.1% faced food insecurity, including 35.2% moderately and 48.8% severely. The high rates of food insecurity among students accessing food support programs (food banks and free/discounted food) suggest

that these programs may not currently be sufficient to address the food needs of students accessing these services.

Frequency of Campus Visits: Students were asked how frequently they were on campus weekly. The majority of students, 81.8% (n=5044), were visiting campus at least once a week and 41.4% of respondents (n=2553) were on campus 4-5 times/week (see Figure 16). Even though most post-secondary institutions are offering online courses during the COVID-19 pandemic, only 8.4% (n=519) of students were never on campus.

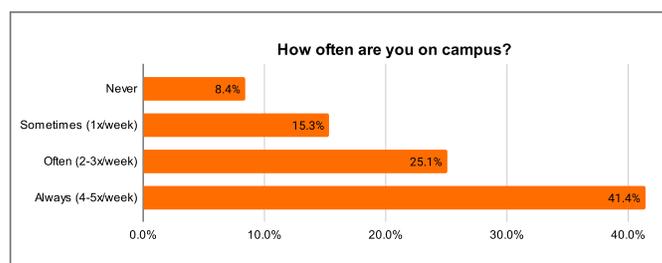


Figure 17: Percentage of how often students are on campus.

Satisfaction with meal plan: Out of students who were on a meal plan (38.6% of respondents; n=2378), 24% were very satisfied, 51.7% were somewhat satisfied, and 24.3% were dissatisfied (see Figure 18). Food insecurity was highest among students who were on a meal plan and dissatisfied with it, at 65.1%, including 35.3% moderately and 29.9% severely (see Figure 19).

Interestingly, even 48.5% of respondents who were very satisfied with their meal plan were food insecure. Past research has found that student food insecurity has been normalized as part of the student experience, limiting awareness and recognition of the issue even among students themselves (Meal Exchange, 2018).

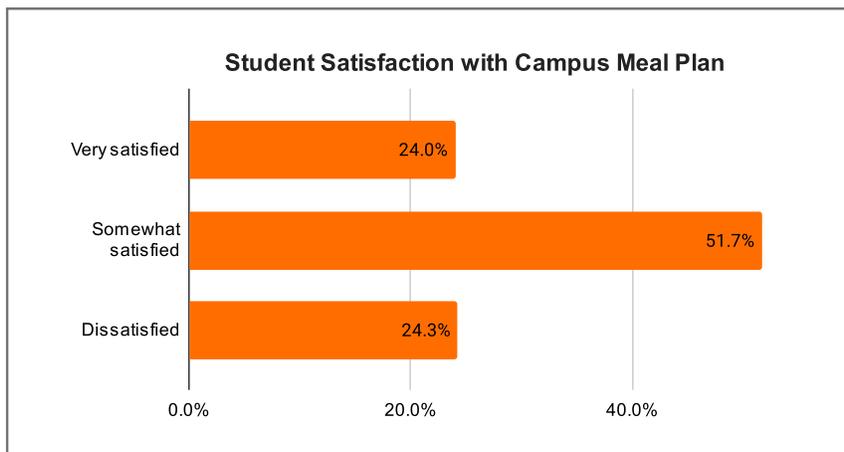


Figure 18. Student satisfaction with their meal plan.

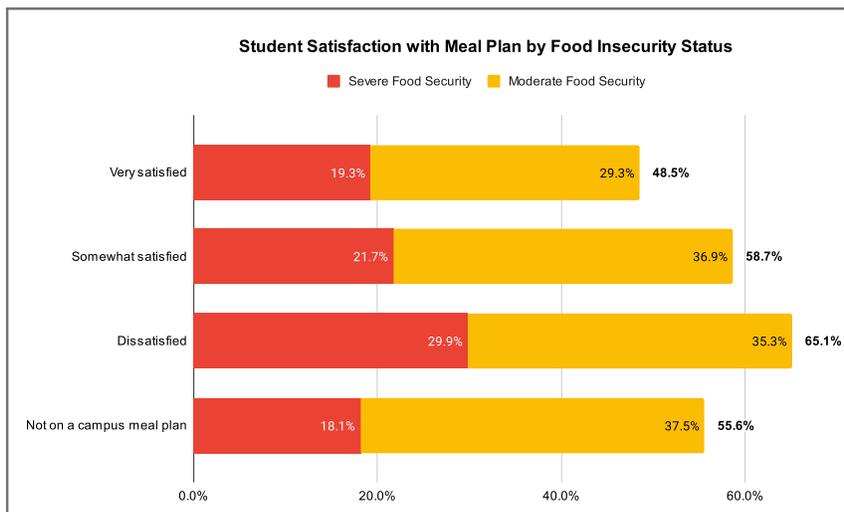


Figure 19. Breakdown of student satisfaction with meal plan by food insecurity status. Each bar represents the percentage of students experiencing levels of food insecurity within their meal plan answer. Bars have been weighted to represent food insecurity status out of 100% of respondents who selected that answer. For example, out of the dissatisfied respondents, 65.1% were food insecure (29.9% severely food insecure and 35.3% moderately food insecure). Only includes respondents who also completed the Household Food Security Status Module.

Addressing Student Food Insecurity



Image 3. Mikayla Eastman, University of Calgary Good Food Campus Coordinator, leading a student consultation.

Food Access & Literacy Initiatives

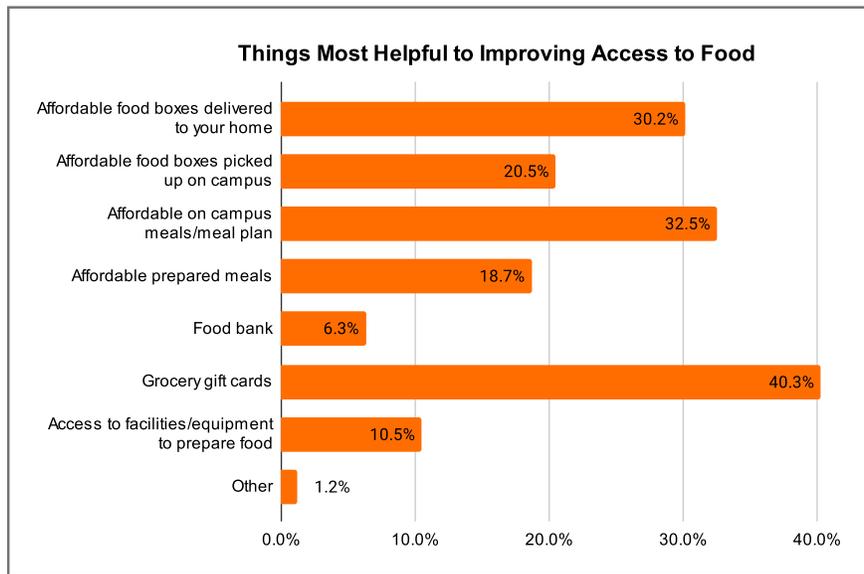


Figure 20. Things most helpful to improving access to food by percentage.

Most helpful food access supports: When students were asked to select three items from a predefined list of factors that would be most helpful in improving their access to food, grocery gift cards were the top item, selected by 40.3% of the survey respondents (n=2484) (see Figure 20). Students may prefer grocery cards so that they have greater choice in meeting their food needs, in terms of types of food but also to be able to purchase food at their convenience (time, location etc). Furthermore, as these results demonstrate, students may be uncomfortable accessing food banks (see Figure 22) and past research has shown that food banks may not meet all the dietary needs of their clients (Silverthorn, 2016). The preference for gift cards was followed by affordable on-campus meals, which were selected by 32.5% of respondents (n=2006) and affordable food boxes delivered to your home, selected by 30.2% of respondents (n=1860).

Education & Food Literacy: When asked which topics about food and cooking they would like to learn more about, eating on a budget was most interesting to students, selected by 47.5% of the survey respondents (n=2930) (see Figure 21). This was followed by healthy eating, which was selected by 42.5% of respondents, (n=2623) and easy recipes by 39.9% (n=2463).

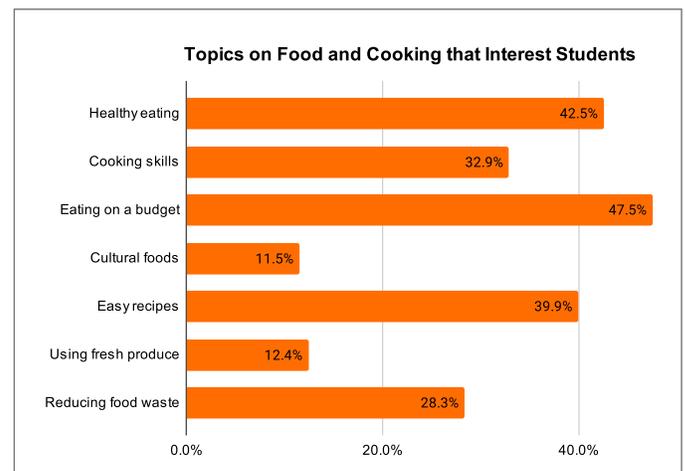


Figure 21. Topics on food and cooking that interests students by percentage.

Use of food banks and initiatives: While food banks and other food access initiatives are available to help those that are food insecure meet their needs, there are various reasons students may not be accessing these services. Among respondents, 12.8% (n=787) stated that they were uncomfortable accessing these services, 7.8% (n=479) stated that the location is inconvenient, and 6.8% (n=419) stated that the hours are inconvenient (see Figure 22).

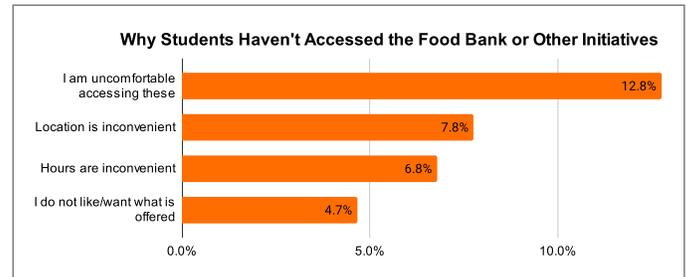


Figure 22: Reasons why students haven't accessed food banks and other food initiatives by percentage.

Policy Changes

Students were asked which types of policy changes from the federal or provincial government might help improve their access to food. The common selection by 21.6% of respondents was tuition supports (see Figure 23). The second most common option, selected by 19.8% of respondents, was more affordable food/meals on campus. Education and opportunities to learn about food was

selected by 5.1% of respondents. The least popular option, selected by 2.8% of students, was reduced transportation fees. These results suggest that policy changes to improve food access should focus on improving the ability for students to afford food by reducing the cost of food, decreasing other major fixed expenses such as tuition or rent, or increasing wages and financial aid.

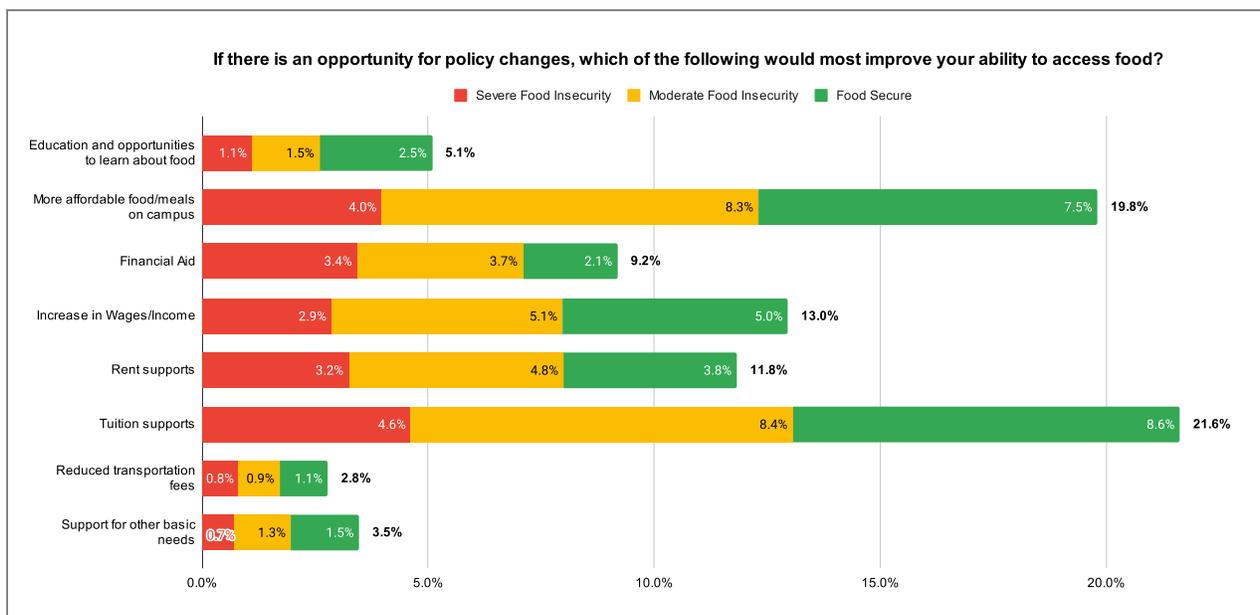
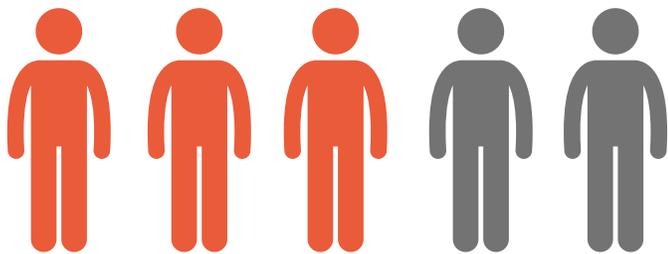


Figure 23. Breakdown of proposed policy changes by food security status. Individual bars indicating level of food security sum to the total percentage of survey respondents that selected that proposed policy change. For example, 21.6% of respondents propose implementing tuition supports. Out of all respondents, 8.4% chose tuition supports and were moderately food insecure; 4.6% chose tuition supports and were severely food insecure. Only includes respondents who also completed the Household Food Security Status Module.

Summary & Recommendations

Food insecurity continues to be a serious and growing problem facing post-secondary students. In Fall 2021, 56.8% of students surveyed were experiencing food insecurity, which is an increase from 41.7% in 2020/2021 and 39% in 2016. Among the general Canadian population, the rate of food insecurity was 14.6% in 2020 (Statistics Canada, 2020a), which is 42.2% lower than the Fall 2021 rate among students found in this study. This finding indicates that **solutions must be developed to specifically target food insecurity among post-secondary students.**

In Fall 2021, almost 3 in 5 students were food insecure



These findings suggest that **financial insecurity and lack of affordable foods are major barriers to student food security.** Students depending on financial support (for example: bank loans, credit cards, government assistance, and bursaries) all experienced higher rates of food insecurity than students with the ability to finance their education through their own funds or from relationships. COVID-19 has also negatively impacted the finances of 24% of students, resulting in 15.1% of students having more difficulty affording food.

Due to financial hardship facing students, the lack of affordable food options on campus was identified by students as an important issue to address. As a large fixed expense, tuition also presents a major financial strain and students chose increasing tuition supports as the most important policy change to improve food access. Increasing wages to living wages would also improve students' ability to afford their education, food and other basic necessities. Lastly, students who were unemployed and actively seeking employment were most likely to be food insecure, suggesting that policies or programs to increase student employment may reduce food insecurity. International students are also often ineligible for funding programs and were left at particular risk of financial insecurity without adequate access to student employment opportunities or government financial assistance during the pandemic (CFS, 2020).

Students are also facing challenges accessing healthy foods and maintaining healthy eating habits, despite healthy food being a top priority to them, only second to affordability. Due to COVID-19, 38.4% of students indicated having a more difficult time maintaining healthy eating habits. To address this, healthy foods need to be made more accessible to students. In particular, campus foods need to meet the variety of cultural and dietary needs of students to uphold student health. In Hungry for Knowledge, 32% of students reported experiencing limited access to important cultural foods (Silverthorn, 2016). In 2018, 76% of students disagreed that campus food helped them maintain a healthy diet and 64% of students reported that healthy food options on campus were not affordable to them (Maynard et al, 2018b). As such, post-secondary institutions should focus on ensuring that healthy and culturally appropriate food, that also meets dietary restrictions, is accessible and affordable to students.

There are demographic disparities in food insecurity rates among students. In particular, students identifying as the following were most impacted by food insecurity: ages 30-34, Two-Spirit, Gender-Fluid, Transgender, Queer, Indigenous, Latinx, and Black. International and exchange students also experienced higher rates of food insecurity than domestic students. Students with dependents were also at greater risk of food insecurity, and particularly single parents. As such, any policies or initiatives to address student food insecurity should be designed with inclusivity and accessibility of the demographics most at risk at the forefront.



Image 4. Meal Exchange student consultation on what good food and food security means to them.

The majority of students are facing food insecurity, suggesting that systemic changes are necessary to address this serious problem and improve student access to good food, which is essential for their health, wellbeing, and academic success. Programs that provide emergency food relief are necessary in the short-term to provide immediate access to food and need to be better funded and resourced, particularly as campus food banks are often student-run and under-resourced to meet the demand (Silverthorn, 2016). To create meaningful solutions in the long-term, federal and provincial policies focusing on student financial security and access to affordable, diverse, and healthy food are necessary.

Appendix 1: Demographics of Student Respondents

Table 3. Student respondents by campus.

Campus	Count	Percent of Respondents
University of Victoria	234	3.8%
University of Lethbridge	160	2.6%
University of Calgary	845	13.7%
Lakehead University	154	2.5%
University of Waterloo	595	9.6%
University of Guelph	1039	16.8%
McMaster University	271	4.4%
University of Toronto-Mississauga	141	2.3%
Queen's University	536	8.7%
University of Ottawa	547	8.9%
Carleton University	384	6.2%
Dalhousie University	773	12.5%
Mount Saint Vincent University	228	3.7%
Other	260	4.2%

Table 4: Student respondents by their enrolment type.

Enrolment Type	Count	Percent of Respondents
Full-time	5547	89.9%
Part-time	385	6.2%
Other	46	0.8%

Table 5: Respondents by type of student.

Type of Student	Count	Percent of Respondents
Studying in home province	4009	65%
Studying out of home province	959	15.6%
International	932	15.1%
Exchange/year abroad	40	0.7%

Table 6: Student respondents by their employment status.

Employment Status	Count	Percent of Respondents
Full-time employment	491	8%
Part-time employment	2489	40.4%
Self-employed	75	1.2%
Unemployed and actively seeking work	819	13.3%
Unemployed and not seeking employment	1728	28%

Table 7. Student respondents by their program type.

Program Type	Count	Percent of Respondents
Apprenticeship	33	0.5%
Certificate	72	1.2%
Continuing Education	83	1.3%
Diploma	118	1.9%
Undergraduate Degree (Bachelors)	4511	73.1%
Graduate Degree (Diploma, Masters, PhD)	1039	16.8%
Other	96	1.6%

Table 8. Student respondents by their self-identified gender.

Gender Identity	Count	Percent of Respondents
Woman	4327	70.2%
Man	1353	21.9%
Gender Fluid	116	1.9%
Non-Binary	179	2.9%
Transgender	107	1.7%
Two-Spirit	32	0.5%
Prefer not to say	78	1.3%

Table 9. Student respondents by their self-identified sexual orientation.

Sexual Orientation	Count	Percent of Respondents
Lesbian	195	3.2%
Gay	139	2.3%
Bisexual	815	13.2%
Queer	365	5.9%
Prefer to say	104	1.7%

Table 10. Student respondents by age group.

Age	Count	Percent of Respondents
16-19	2025	32.8%
20-24	2710	43.9%
25-29	706	11.4%
30-34	231	3.7%
35-39	83	1.3%
40-49	65	1.1%
50+	22	0.4%

Table 11. Student respondents by their self-identified racial backgrounds.

Racial/Ethnic Background	Count	Percent of Respondents
Indigenous	212	3.4%
Black	301	4.9%
East/South East Asian	948	15.4%
Latinx	222	3.6%
Middle Eastern	354	5.7%
South Asian	780	12.6%
White	3406	55.2%

Table 12. Student respondents by living arrangements.

Living Arrangement	Count	Percent of Respondents
Student residence	1322	21.4%
With partner, no dependent(s)	494	8%
With roommates	1970	31.9%
With family	1332	21.6%
Alone	475	7.7%
Precarious (couch surfing, shelters)	15	0.2%
Single parent with dependent(s)	52	0.8%
With partner and dependent(s)	103	1.7%

Table 13. Student respondents by their top 3 sources of financing for education and basic necessities.

Primary Source of Funding	Count	Percent of Respondents
Personal savings	3202	51.9%
Employment	2544	41.2%
Help from personal relationships	3427	55.6%
Government student loan	1726	28%
COVID government assistance	324	5.3%
Bank or other loan	288	4.7
Credit card	539	8.7%
Scholarship, bursary or other merit-based funding package	1705	27.6%
Bursary, financial aid or other needs-based support	536	8.7%

Table 14. Student respondents regularly accessed food from.

Where Students Regularly Access Meals	Count	Percent of Respondents
Campus dining hall or restaurant	2876	46.5%
Free/pay-what-you-can meals on campus	594	9.6%
Free/discounted fresh produce & bulk food	413	6.7%
Campus food bank	302	4.9%
Food bank (in local community)	160	2.6%
Grocery store/delivery	3860	62.6%
Farmers market/CSA	674	10.9%
Meal kits	310	5%
Restaurant/café/take-out	3403	55.2%
Friends/family/partner	2416	39.2%
Unconventional methods	44	0.7%
Harvested/grown	378	6.1%

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