Giving Food Insecurity a Voice: Student Lived Experiences
Lyncee Dela Cruz, Miluska Bravo Vela, Ojinika Udeze, Hafsa Ahmed
University of British Columbia
Course: LFS 450
Themes: Food, Community, Wellbeing
Date: April 16, 2020

Disclaimer: “UBC SEEDS Sustainability Program provides students with the opportunity to share the findings of their studies, as well as their opinions, conclusions and recommendations with the UBC community. The reader should bear in mind that this is a student research project/report and is not an official document of UBC. Furthermore, readers should bear in mind that these reports may not reflect the current status of activities at UBC. We urge you to contact the research persons mentioned in a report or the SEEDS Sustainability Program representative about the current status of the subject matter of a project/report”.
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EXECUTIVE SUMMARY

Scientific Justification: Food insecurity continues to be a pressing matter in the Canadian context. However, a population that has been overlooked and constitutes one of the most vulnerable groups are post-secondary students (UBC, Report to the Board of Governors, 2019). An Undergraduate Experience Survey (UES) conducted at UBC identified that approximately 40% of the participants were food insecure (Rideout and James, 2017; UBC Report to the Board of Governors, 2019). Notwithstanding, little is known regarding UBC’s food insecure students.

Overall goals: The following research project was carried out in collaboration with UBC Wellbeing with the goal to collect lived experiences from specific student demographic groups at higher risk of food insecurity: Graduate, International, LGBTQIA2S+ and Diversability students.

Specific Objectives:

1. Collect lived food-insecurity experiences from students on the Vancouver UBC campus, including factors that contributed to food insecurity, how it impacted their academic activities, coping strategies, their knowledge of resources available to them and their recommendations for reducing food-insecurity on campus.
2. Elevate voices of the general study body and specific demographic groups at higher risk of food-insecurity, including international, LGBTQ, and graduate students and students with diversabilities at UBC.
3. Develop recommendations to tackle food insecurity on campus informed by the experiences collected.
4. Propose an advocacy tool that can be used to share student’s food insecurity experiences using collected lived experiences (primary data) and literary recommendations and suggestions (secondary data).

Methods: The lived experiences of food insecure students were primarily collected through an online survey and supplemented with a focus group session. Both research methods were advertised through paper and digital posters across campus, and the project was broadcasted and highlighted on various faculty e-newsletters. The research team designed a screening tool to determine whether participants qualified as food insecure, only data from participants that qualified as food insecure was analysed. Secondary data was collected in order to supplement primary key findings and validate the results. Specifically, the impacts of food insecurity on students found in the secondary data mirrored the major themes found in this study.

Conclusion: Results showed 47% of the respondents were food insecure, many of their concerns revolved around de-stigmatization of food insecurity and a greater awareness of available resources. Therefore, the first recommendation for action is based on increasing awareness of food insecurity on campus. To accomplish this, two advocacy tools are proposed: 1) digital signage that incorporates storyboards and infographics containing real data from this study and 2) a video series on food insecurity. The second recommendation is increasing awareness and accessibility of resources on campus which can be accomplished by increasing the “Sustainable Food Access Fund”. For future research, we recommend a stronger emphasis should be placed on reaching out to the underrepresented groups in this study by building stronger connections with their respective communities. These recommendations will help UBC Wellbeing achieve the target of reducing food insecurity for UBC community members by 2025.
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**Figure 1.** The interrelationship between the impacts of food insecurity, coping strategies and recommendations of the key informant

**Figure 2.** An example of a storyboard that incorporates statistics and lived experiences from this study
1. INTRODUCTION

1.1 RESEARCH TOPIC

The definition of food insecurity varies depending on the source; however, this research project used the household-income based definition of food insecurity: “inadequate or insecure access to food due to financial constraints” (Household Food Insecurity in Canada, n.d). The research focused specifically on student food insecurity at the University of British Columbia (UBC) by reaching out to students who had experienced food insecurity at some point during their study period and collecting their lived experiences. Lived experiences encompass coping strategies when dealing with food insecurity, the impact it has on their daily life and the resources they may have used to overcome it.

This project is important because food insecurity has many negative implications for student life. A recent article indicated that approximately one-third of Canadian university students identify as food insecure (Hattangadi et al., 2019). This finding is important as food insecurity impacts academic performance, mental health and social wellbeing of students. For example, food insecurity can result in lack of focus in class (Meza et al., 2018; 2019) and is associated with lower grade point-averages (Martinez et al. 2018). Moreover, it can directly or indirectly impact mental health as most food insecure students neglect social events, resulting in feelings of isolation and loneliness (Martinez et al., 2018; Maynard et al., 2018).

Furthermore, collecting lived experiences provided an opportunity to promote student wellbeing on campus and propose an advocacy tool to increase knowledge and empathy of food insecurity within the UBC community. Forming recommendations and advocacy tools for addressing food insecurity without incorporating student lived experiences will not be as effective in achieving its goal (Maynard et al., 2018). Therefore, to tackle food insecurity on the UBC campus, it is necessary to first collect experiences from UBC students as they would lead to more informed and insightful recommendations to help tackle this food issue.

Our hope is that by helping alleviate student food insecurity, this project will also improve overall student wellbeing, mental health and quality of life on campus.
1.2 RESEARCH RELEVANCE

Food insecurity amongst post-secondary students has implications for academic performance, mental health and overall wellbeing (Maynard et al., 2018; Meza et al., 2019; 2018). A study by Maynard et al (2018) which collected experiences of food-insecure undergraduate Canadian students, demonstrated normalization of food insecurity in exchange for a post-secondary education which is commonly referred to as the “starving student ideology” (Maynard et al., 2018). However, normalization comes with the price of anxiety, frustration and other psychological effects (Maynard et al., 2018; Meza et al., 2019; 2018). Students who experience food insecurity have a higher probability of failing classes or not signing up for future courses (Meza et al., 2019; 2018). It also impacts academic behaviour through loss of focus in class, increased studying time (time it takes to graduate), loss of motivation for attending classes, lower grades, and decreased ability to complete assignments and exams on time (Gallegos et al., 2014; Henry, 2017; Martinez et al., 2018; Maynard et al., 2018; Meza et al., 2018; 2019). Regarding students’ mental health, food insecurity can cause feelings of hopelessness and frustration for not being able to afford food and resentment towards their institutions (e.g. college/university) due to lack of support. Resentment towards those who are food secure can also be present (Meza et al., 2019; 2018). Given that this project outcome is to build recommendations derived from collected student lived experiences at UBC, it is well positioned to provide results that can be foundational to starting the discussion of this food issue on campus and highlight areas of interest for future research.

Ultimately, this project aligns with policies and frameworks that UBC is already committed to advance. For example, the UBC Wellbeing strategic framework has a target on Food and Nutrition: “Reduce food insecurity for UBC community members by 2025” (UBC Wellbeing: Food + Nutrition (n.d.)). The purpose of this project (see section 1.4) aligns perfectly with this target.
By increasing awareness and empathy on campus, a collective and more effective effort can be made to reach this target. The Okanagan Charter, which UBC signed in October 2016 is another example of UBC’s commitment to student wellbeing. The Okanagan charter is an international charter that strives to embed health in all aspects of campus life (The Okanagan Charter, 2015). Contributions to student wellbeing from this project are made from the food and nutrition angle as previously explained for the Wellbeing Strategic Framework. Consequently, improved student wellbeing will be reflected in the reduced numbers of the AMS food bank users and food-insecure students on campus.

Canadian post-secondary students are vulnerable to food insecurity, to which the rise of tuition cost (increase of 40% between 2006 and 2016) is a contributing factor (Maynard et al., 2018). It is highly probable the struggles experienced by food insecure students at UBC exhibit significant similarity to other food insecure students across Canada. Therefore, the results and developed recommendations from this study have the potential to be used as a reference by other academic institutions when designing their own resources for food insecure students on their campuses. By understanding and acknowledging lived experiences of food insecure students, we are closer to deciphering the root causes of this food issue. New policies and strategies based on student lived experiences can help prevent other students from normalizing food insecurity while alleviating this food issue on campus.

Food insecurity undoubtedly affects overall health. Therefore, by actively looking for opportunities to reduce it, student wellbeing is promoted. A local project that focuses specifically on UBC students has the potential to become part of a regional or even national solution while building society wellbeing as students graduate and join their respective workforces. Building an environment where promoting students’ wellbeing efforts are recognized will function in producing members of society that value
and understand the importance of wellbeing.

1.3 PROJECT CONTEXT

Improving student well-being is a commitment of UBC, illustrated by the launch of UBC’s Wellbeing Strategic Framework. Within this framework, six priority areas were identified with Food and Nutrition being one of them (Wellbeing Strategic Framework (n.d.)). One of the targets of the Food and Nutrition priority area is to reduce food insecurity for UBC community members by 2025 (UBC Wellbeing: Food + Nutrition (n.d.)). This priority area is ever more important as students should be able to access nutritious, and affordable foods in socially acceptable ways in order to prevent the long-term implications of the impacts of food insecurity (Henry, 2017; Martinez et al., 2018; Maynard et al., 2018; Meza et al., 2018:2019; Diamond et al., 2019) To achieve the aforementioned target, a ‘Food Insecurity Action Team’ (FIAT) was assembled in 2019. This is a team built to “increase awareness and lead action on reducing food insecurity within the UBC community” (UBC Report to the Board of Governors, 2019).

The FIAT has done some incredible work for student food insecurity. The FIAT is responsible for establishing the FOOOOD cafe which has an option of pay it forward (a program that allows students to contribute to other students’ meals); setting up a student wellbeing fund that launched on November 22nd, 2019 with a “Buy a Student a Breakfast” campaign; creating options for low-cost to no-cost textbooks; and lastly starting an emergency food relief program for students in immediate need (UBC Report to the Board of Governors, 2019). However, UBC Wellbeing raised a key concern of the noted lack of recording and compilation of a student’s own experiences with food insecurity. Without input from students who have experienced this issue, it is difficult to raise awareness of the current situation and induce changes on campus through policies and programs.

Museus (2020) stated that humanizing issues and showing the process of struggle increases the chance of those who have the power and status to make a change to do so and do it more effectively. In this case,
humanizing the issue of food insecurity and allowing students to speak of their lived experiences would allow policymakers at various levels (i.e. UBC level, municipal, provincial or federal) to understand the impact of the issue and work with the interest of the student’s in mind. Previous data analysis from the UES revealed approximately 40% of UBC students identified as being food insecure. Particular groups of students, such as international students were found to be at a higher risk (UBC Report to the Board of Governors, 2019). While seeking lived food insecurity experiences from the general student body, it was important to particularly reach out to groups of students who are at a higher risk of food insecurity. Therefore, collection of lived experiences was emphasized from groups of students identified to be a higher risk of food insecurity from the UES and literature review. The research team focused on collecting students’ lived experiences and providing them with a platform to express not only their experiences and concerns but also the changes they would like to see on campus. This project directly contributes to UBC’s commitment as its findings will be used to promote student wellbeing in the long run.

1.4 PROJECT PURPOSE, GOALS AND OBJECTIVES

**Research Purpose:**
Raise awareness about the student lived food insecurity experiences on campus to increase understanding and empathy within the UBC community and inform advocacy initiatives and policies to ultimately reduce student food insecurity.

**Research Goal:**
Collect student lived experiences from specific demographic groups at higher risk of food insecurity in addition to the general student body in order to make recommendations and inform initiatives for reducing food insecurity on campus.

**Research Objectives:**
1. Collect lived food-insecurity experiences from students on the Vancouver UBC campus, including factors that contributed to food insecurity, how it impacted their academic activities, coping strategies, their knowledge of resources available to them and their
recommendations for reducing food-insecurity on campus.

2. Elevate voices of the general study body and specific demographic groups at higher risk of food-insecurity, including international, LGBTQ, and graduate students and students with diversabilities at UBC.

3. Develop recommendations to tackle food insecurity on campus informed by the experiences collected.

4. Propose an advocacy tool that can be used to share student’s food insecurity experiences using collected lived experiences (primary data) and literary recommendations and suggestions (secondary data).

2. METHODOLOGY AND METHODS

2.1 RESEARCH METHODOLOGY

The project follows the methodological framework of Community Based Action Research (CBAR) whereby traditional subjects of research become active participants (Nasrollahi, 2015), and there is an emphasis on developing a long-term relationship with the community partners (Simeone & Shaw, 2017). CBAR is comprised of three phases “Look, think, act” which are iterative to each other (Nasrollahi, 2015). The difference with other research methodologies is that CBAR’s principle is the creation of meaningful impact on the community and the collaborative creation of knowledge between the participants and the researchers. Hence, this methodology provides a good entry point for not only capturing the experience of UBC students on the food insecurity issue, but also incorporating their voices and suggestions into the recommendation guidelines that our team will produce. Moreover, the advocacy tool generated to raise awareness and create empathy on the UBC community will also incorporate the input from the participants.

2.1 RESEARCH METHODS

2.1.1 PRIMARY DATA COLLECTION

In order to record the lived experiences of students at UBC, mix methods consisting of focus group (FG) sessions and online surveys were used. FG sessions were selected as the main type of research method as it allows for an
intentional in-depth discussion of a particular topic with a specific group of people (Bernard, 2011); in this case, students who had or are currently experiencing food insecurity. Given that the recommended number of participants per FG is between 8 to 10 people, FG can provide an intimate and safe space where students can not only share, but also build upon each other’s experiences. The goal of the moderator is then to promote discussion among the participants but also let the students decide where to take the conversation in a controlled way.

Given the sensitivity of the topic, the research team worried that some food insecure students would be uncomfortable sharing their experiences face to face. Online surveys provided a great alternative for students that prefer anonymity when sharing their experiences while at the same time ensuring that a broader group of students can be captured. The online surveys were initially thought as a complementary research method to the FG. However, due to some factors that will be expanded upon in the limitations section, the online surveys became the primary data collection tool.

Moreover, this study has been carried out following the ethics protocol at UBC. All team members undertook the Behavioural Research Ethics Board (BREB) certificate and participants from the FG were asked to read and sign a consent form whereby their anonymity was guaranteed. For the online survey participants, it was stipulated that completion of the survey indicated their consent for the use of their data in the report, but also for future advocacy tools or infographics that may be designed as the result of this project. Their anonymity was one again guaranteed.

2.1.2 SECONDARY DATA COLLECTION

A literature review was conducted to collect secondary data and it served three purposes; 1. Situate the food issue within the North-American context and understand the impact of food insecurity on post-secondary students, 2. Get an overview of the different data collection methods & tools for determining food insecurity in post-secondary students and 3. Identify current initiatives among North-
American universities to reduce food insecurity on campus to aid recommendation formation.

The virtual UBC library website was used to obtain scholarly and peer-reviewed articles and journals. Websites of different Canadian and American universities were visited to explore their food insecurity initiatives. Only studies that referred to food insecurity in post-secondary education were reviewed. Keywords used to search for these articles include: Food insecurity, post-secondary education, measuring food insecurity, and impacts of food insecurity. Previous SEEDS project reports, the Okanagan Charter and the UBC Wellbeing Strategic Framework were also consulted for situating this food issue within the UBC context.

2.2 METHODS OF ADMINISTRATION

2.2.1 FOCUS GROUP

Originally, six focus group sessions were planned in the span of three weeks. Four sessions targeted a specific student demographic, and two sessions were open to all students (refer to Appendix 1 for the date, time and location of the planned FG sessions). The four targeted FG sessions invited graduate, international, LGBTQIA2S+ and diversibility students for a discussion on their lived experiences. LGBTQIA2S+, international and diversibility students were chosen based on data from an undergraduate experience survey at UBC which had identified these student groups at a higher risk of food insecurity (UBC Report to the Board of Governors, 2019). Diversibility students refer to those who have physical, academic, mental disabilities or ongoing medical conditions. Graduate students were also a target group, as indicated by literature review which positions them as a high-risk group of food insecurity (Pia et al., 2009).

Participant selection was based on a self-identification basis as we expected students who identified themselves as food insecure to attend the FG sessions. To ensure the accuracy of our data, a set of screening questions adapted from the Household Food Security Survey Module (HFSSM) by Statistics Canada were included in the FG (within the pre-focus group survey – see Appendix 3). This screening tool included 7-item questions. Students who responded affirmatively to two or more questions were classified as food insecure. (See Appendix 2 for the screening questions and
The team expected a sample size of 60 participants (10 participants per FG session). However, only one participant showed up to the first FG session which targeted graduate students (n=1). Nonetheless, because the responses of the graduate participant have great value, the participant became a key informant.

The FG with the key informant took place on March 4th, 2020 at the Centre for Interactive Research on Sustainability (CIRS) at UBC, and it ran for approximately one hour and a half. Food (10 wraps and 10 cinnamon buns) and tea were provided to create a more comfortable atmosphere. As soon as the key informant arrived, the team handed out a consent form and a pre-focus group questionnaire (see Appendix 3) for the participant to read, fill and sign. Due to the sensitivity of the topic, the team worked actively towards creating a safe space during the FG sessions which led to the creation of an FG guide script. This script told the participant to share as much or as little information as they felt comfortable with and included an ice breaker question to help with the flow of the session. It also emphasized that participants had the freedom to leave the FG session at any time. After the participant returned the forms, the moderator introduced the project, informed the participant that the session was being recorded and started the FG session (please refer to Appendix 4 for the FG guide).

The FG itself consisted of semi-structured questions (found in the script) with a series of specific associated prompts. These prompts were only used if the two FG moderators felt that the participant could expand further upon a specific answer. The data collection tools during the FG were the voice recorder and note taking; both responsibilities of the remaining two team members.

2.2.2 ONLINE SURVEY

The online surveys were electronically designed using Qualtrics (see Appendix 5 for survey questions) and were launched between March 2nd to March 20th, 2020 to match the recruitment period of the FG session. At the beginning of the survey, there was a text informing the participant about the purpose of
the project, their freedom to answer questions they felt comfortable with, and the implied consent to include their responses in the project report if the survey was submitted. Their privacy and anonymity were guaranteed. The online survey was divided into three sections and was designed to take fifteen minutes to complete. First it started with questions regarding the demographic information of the respondent, followed by the questions from the screening tool and ending with six open-ended questions which allowed participants to expand on their lived experiences. The expected response rate was 60 (equal to the number of participants we were anticipating for the FG). However, the actual response rate was 81, exceeding our expectations. Participant selection was based on self-identification. Just as with the FG, we expected only food insecure students to fill out the online survey. However, after analysing the responses to the screening questions, the food insecure sample size was n= 38, giving a 47% response rate of students that qualify as food insecure.

2.2.3 RECRUITMENT FOCUS GROUP

See Appendix 8 for recruitment pieces.

Poster

Recruitment for the FG was mainly based on the design of a poster. The posters contained a carefully curated purpose (e.g. “Give Food Insecurity a Voice” as the central message), the time and location for the specific student groups, and a description that invites food insecure students to participate in a food insecurity research project. It also included an email address (specifically created for the purpose of this research) so that interested students could write and RSVP. This would give the research team the opportunity to plan accordingly to the number of expected participants. However, walk-ins were also welcomed. Posters were displayed across high traffic buildings on campus such as Buchanan, McMillan, Forestry, Biology, among others, with a special emphasis on the student building (The nest). Halls, bathrooms and kitchens were usual locations targeted within these buildings. Resident Advisors of Student Housing dorms were also contacted and asked to distribute the posters throughout the building. For capturing more specific groups, posters were also placed...
or distributed to the AMS food bank, the Pride Collective and the Center for Accessibility. The posters also included a QR link that upon scanning would open the online survey.

**Electronic Signage**

The team designed and submitted the electronic signage to Jamil Rhajiak with the intention of capturing a broader audience in high traffic buildings. However, the team is unaware of its success given that we did not see it published.

2.2.4 Recruitment Online Surveys

**Email and electronic announcements**

Emails explaining the project’s goal and a link to the online survey was sent to a broad range of contacts. Times and locations for the FG sessions were also included, and the consent form letter was attached (Refer to Appendix 6 for list of contacts). We received an answer and the support of Loriann McGowan, Associate Director of Residence Dining, Eric Yu from LFS Science Undergraduate Society, Ian Stone from AMS Food bank and Eric Lowe from the AMS. We were successfully featured in the AMS Newsletter and the LFS Newslettuce.

2.2.5 Recruitment - New Channels

After the low turnout of the first FG session, the team decided to modify its approach and try new channels. For example, FG sessions were promoted through social media (Facebook and Instagram) as well as directly reaching out to friends who we thought would be interested in participating. A few hours before the beginning of the FG session, part of the team would also visit the graduate student lounges or approach the students within the CIRS building and invite them to participate.

2.2.6 Incentives

Regarding incentives, both FG and online surveys had a draw of five 20$ UBC Food Services gift cards for each for the online survey and another five for the FG sessions were used. As mentioned earlier, food and drinks from Scholars Catering were ordered for the FG participants. The gift cards and the food were both advertised in the posters and electronic announcements.

3. Results

3.1 Online Surveys

3.1.1 Demographics of Food Insecure Student
Out of 81 online survey responses, 38 students, namely 47% of respondents, qualified as food insecure (see Table N°1). Given that the interest of this study was to understand the experiences of food insecure students, the results section will focus exclusively in this group. Although originally five student demographics were identified, participants could select multiple options in the question of “how do you identify as “and “Which level of studies are you enrolled in?”. This allowed for the combination of student demographics to arise. This intersectionality was mostly with food insecure students who identified themselves as LGBTQ+ and Diversability students. For example, there were four international students who also identified as LGBTQ+. The highest number of responses came from undergraduate students (n=17) followed by international undergraduate students (n=8). Notably there was a low amount of responses from Graduate students, International graduate students, and LGBTQ+ & Diversability undergraduate students (see Table N°2 for a breakdown demographic of food insecure students).

### Table 1. Breakdown of Respondents who Qualified as Food Insecure vs. Food Secure

<table>
<thead>
<tr>
<th>Students who Qualified as Food Insecure</th>
<th>Students who Qualified as Food Secure</th>
<th>Total # of Respondents</th>
<th>% of Respondents who Qualified as Food Insecure</th>
<th>% of Respondents who Qualified as Food Secure</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>43</td>
<td>81</td>
<td>47%</td>
<td>53%</td>
</tr>
</tbody>
</table>

### Table 2. Demographic Breakdown of Students Who Qualified as Being Food Insecure

<table>
<thead>
<tr>
<th>Student Demographic</th>
<th># of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate students</td>
<td>17</td>
</tr>
<tr>
<td>International Undergraduate Students</td>
<td>8</td>
</tr>
<tr>
<td>LGBTQ+ and International Undergraduate Students</td>
<td>4</td>
</tr>
<tr>
<td>LGBT Undergraduates</td>
<td>4</td>
</tr>
<tr>
<td>Diversability Undergraduate Students</td>
<td>2</td>
</tr>
<tr>
<td>Graduates</td>
<td>1</td>
</tr>
<tr>
<td>International Graduate Students</td>
<td>1</td>
</tr>
<tr>
<td>LGBTQ+ and Diversability Undergraduates</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38</strong></td>
</tr>
</tbody>
</table>

### 3.1.2 Characteristics of Food Insecure Students

A further dive into the characteristics of food insecure students who answered the survey showed that over half of them (56%) lived on campus with the remaining 41% lived off-campus. Additionally, 4 food insecure students from different student demographics had used the food bank during their time at UBC. Their frequency use ranged from once to every month (See Table N°3). Regarding the sources of financial support, students could check multiple sources from a list. Most students reported using family, work and savings as their main sources of
income during the term. Refer to Table №4 for a complete list of the identified resources. Lastly, our findings indicate that 47.4% of food insecure students are taking 4 classes, 26.3% are taking 5 classes, and 13% are taking more than 5.

Table 3. Demographics of Food Insecure Respondents who Use the Food Bank

<table>
<thead>
<tr>
<th>Student Demographic</th>
<th>Number of students</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>1</td>
<td>Every month</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Once</td>
</tr>
<tr>
<td>LGBT QIA 25+ Undergraduate</td>
<td>1</td>
<td>Once</td>
</tr>
<tr>
<td>International Undergraduate</td>
<td>1</td>
<td>Every couple of months</td>
</tr>
<tr>
<td>Total # of students</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>% of Food Insecure students who have used the food bank</td>
<td>11%</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Income Resources of Food Insecure Students

<table>
<thead>
<tr>
<th>Sources of Income</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>28</td>
</tr>
<tr>
<td>Work</td>
<td>22</td>
</tr>
<tr>
<td>Savings</td>
<td>18</td>
</tr>
<tr>
<td>Student Loans</td>
<td>12</td>
</tr>
<tr>
<td>Scholarships</td>
<td>10</td>
</tr>
<tr>
<td>Bursaries</td>
<td>8</td>
</tr>
<tr>
<td>Credit Cards</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
</tbody>
</table>

3.1.3 Thematic Analysis of Open-Ended Questions

Question 1: From your own understanding, what does “food security” mean to you?

Most students responded that it had to do with access (55.2%), followed by availability of food (24.1%), and not worrying about money when purchasing food (10.3%). Although quantity and quality of food were occurring themes, they were not the most prevalent. The same can be said for the notion that food security means having the freedom to choose (see Table 6).

Illustrated by Table 7, responses corresponding to “access” can be further divided into sub-themes. Half of these responses consisted of having financial and economic access to food while 37.5% of the responses considered that food security meant having access to nutritious, healthy, sustainable and/or culturally appropriate foods. Physical access to food was also mentioned but to a lesser degree. Lastly, 6.25% of students related physical, economic and healthy access to food as key...
components to food security.

<table>
<thead>
<tr>
<th>Access Sub-themes</th>
<th>Prevalence / %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial / economic</td>
<td>50%</td>
</tr>
<tr>
<td>Nutritious/ healthy/ sustainable/ culturally appropriate</td>
<td>37.5%</td>
</tr>
<tr>
<td>Physical</td>
<td>6.25%</td>
</tr>
<tr>
<td>Physical + economic + Healthy</td>
<td>6.25%</td>
</tr>
</tbody>
</table>

**Question 2:** Please share with us your experiences with food insecurity during your time at UBC

The most prevalent experience was having to compromise on the quality of food due to financial constraints (23.5%). This was closely followed by reducing the amount of food intake (17.6%). Interestingly, another 17.6% of students stated that they had no experiences to share as they did not identify as food insecure; although the screening tool classified them otherwise. The experience of criticising food prices on residence and campus was as frequently stated as the feelings of burden and guilt that food insecurity brought. The least stated experience was engaging in disrupted eating patterns (see Table 8).

<table>
<thead>
<tr>
<th>Identified themes</th>
<th>Prevalence / %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compromise on quality due to financial constraints</td>
<td>23.5%</td>
</tr>
<tr>
<td>Do not identify as food insecure / no experiences to share</td>
<td>17.6%</td>
</tr>
<tr>
<td>Reduce amount of food intake</td>
<td>17.6%</td>
</tr>
<tr>
<td>Criticize food in residences and on campus</td>
<td>11.8%</td>
</tr>
<tr>
<td>Feelings of burden or guilt</td>
<td>11.8%</td>
</tr>
<tr>
<td>Money allocation trade-offs</td>
<td>11.8%</td>
</tr>
<tr>
<td>Disrupted eating patterns</td>
<td>5.9%</td>
</tr>
</tbody>
</table>

**Question 3:** How has your experience with food insecurity impacted your daily life during your time as a UBC student?

Physical wellbeing seems to be most impacted daily by food insecurity (see Table 9).

<table>
<thead>
<tr>
<th>Identified themes</th>
<th>Prevalence / %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical wellbeing</td>
<td>25%</td>
</tr>
<tr>
<td>Academic performance</td>
<td>15%</td>
</tr>
<tr>
<td>No impact</td>
<td>15%</td>
</tr>
<tr>
<td>Social life</td>
<td>10%</td>
</tr>
<tr>
<td>Budgetary restrictions</td>
<td>10%</td>
</tr>
<tr>
<td>Not eating on campus</td>
<td>5%</td>
</tr>
<tr>
<td>Criticism to UBC food services</td>
<td>5%</td>
</tr>
<tr>
<td>Guilt</td>
<td>5%</td>
</tr>
<tr>
<td>Reduced food intake</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Question 4:** How have you adapted your life, including coping strategies, while being food insecure at UBC?

The most common strategy used by students was bringing food from home (24.9%), including buying groceries in bulk, meal
prepping and bringing lunch and dinner to campus. Our study also found food intake reduction to be the second most common coping strategy (23.5%). The ability of eating less and shrinking the appetite were mentioned twice and in the words of a student: “[there’s an] Ability to eat less, eat filling but unhealthy food, [and] eating once a day usually helps as well”.

Some interesting results included students distracting themselves with academic activities such as studying to overcome feelings of hunger. Additionally, 11.8% of the students stated not using any strategy. Lastly, although finding a job was expected to be a more common coping strategy, only 5.9% of students had acquired a job to help buy food.

Question 5: What has been your experience seeking out and/or using UBC resources or supports related to food insecurity, including (but not limited to) the AMS Food Bank, Enrolment Services Advisors?

An overwhelming percentage of responses indicated they had not made use of any resources. Only two students (13.3%) had made use of the UBC food bank while 6.7% expressed having visited the food bank out of curiosity to see what was offered, but not making any use of it. Another notable response was the recognition that food insecure students were making use of current UBC initiatives such as the FO00OD Cafe. Refer to Table 11 for a complete list of identified themes.

<table>
<thead>
<tr>
<th>Identified themes</th>
<th>Prevalence / %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haven't made use of any resource</td>
<td>60.0%</td>
</tr>
<tr>
<td>Made use of the UBC food bank</td>
<td>13.3%</td>
</tr>
<tr>
<td>Visited food bank (but haven't made use of it)</td>
<td>6.7%</td>
</tr>
<tr>
<td>Current UBC initiatives and volunteer-run cafes</td>
<td>6.7%</td>
</tr>
<tr>
<td>ES advisor</td>
<td>6.7%</td>
</tr>
<tr>
<td>Not aware of resources on campus</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identified themes</th>
<th>Prevalence / %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bringing food from home</td>
<td>24.9%</td>
</tr>
<tr>
<td>Reduce food intake</td>
<td>23.5%</td>
</tr>
<tr>
<td>Seek free food sources on campus</td>
<td>11.8%</td>
</tr>
<tr>
<td>N/A or no strategy</td>
<td>11.8%</td>
</tr>
<tr>
<td>Make use of current UBC initiatives</td>
<td>5.9%</td>
</tr>
<tr>
<td>Meal planning</td>
<td>5.9%</td>
</tr>
<tr>
<td>Distracting oneself with studies</td>
<td>5.9%</td>
</tr>
<tr>
<td>Find a job</td>
<td>5.9%</td>
</tr>
</tbody>
</table>

Question 6: What are some policies/resources/support programs that you think could be useful for reducing food insecurity on campus?

For suggestions on how to alleviate food insecurity on campus, 25% of the students responded with lowering meal prices on campus. This was followed by an acknowledgement that the UBC Food Bank was useful but needed to be more accessible (19%). Spreading awareness and
expansion of current initiatives such as the FOOOOD Cafe was also stated as important (19%). Although only 6% of the students mentioned there should be a more widespread discussion of food insecurity on campus, this was noted as important for the de-stigmatization of this food issue (see Table 12).

### Table 12: Identified theme and their prevalence for question six

<table>
<thead>
<tr>
<th>Identified themes</th>
<th>Prevalence / %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower meal prices on campus</td>
<td>25%</td>
</tr>
<tr>
<td>Continue with food banks and make them more accessible</td>
<td>19%</td>
</tr>
<tr>
<td>Spread awareness + expand current initiatives</td>
<td>19%</td>
</tr>
<tr>
<td>Encourage widespread discussion of food insecurity on campus</td>
<td>6%</td>
</tr>
<tr>
<td>More events providing free food</td>
<td>6%</td>
</tr>
<tr>
<td>Reduce cost of tuition and promote affordable rent</td>
<td>6%</td>
</tr>
<tr>
<td>Mobile app</td>
<td>6%</td>
</tr>
<tr>
<td>Using flex dollars back</td>
<td>6%</td>
</tr>
</tbody>
</table>

#### 3.2 FOCUS GROUP RESULTS

The Key informant from the focus group session self-identified as food insecure; an answer that was corroborated by the screening tool. The key informant also identified as a female graduate student at UBC taking 2 courses. She lives on campus and her sources of income are work, scholarship and bursaries; although she indicated that the scholarship money was mostly to pay tuition.

The responses to the FG questions were separated into three categories: 1) effects that food insecurity had on the key informant, 2) the coping strategies used, and 3) the informant’s recommendations for reducing food insecurity on campus. Please refer to Appendix 7 for a detailed list of the themes identified under each category. A visual diagram of the impacts, coping strategies and recommendations responses of the key informant as well as how these answers are interrelated can be found in Figure 1.

**Figure 1.** The interrelationship between the impacts of food insecurity, coping strategies and recommendations of the key informant.

#### 4. DISCUSSION

##### 4.1 SIMILARITIES WITH THE LITERATURE

The food insecurity lived experiences captured in our study resemble those found in the literature; particularly the impacts of food...
Food insecurity is an issue associated with stigma and feelings of alienation. Food insecure students may deny self-identification as words “food insecurity” come with negative connotations (Nikolaus, Ellison, & Nickols-Richardson, 2019). Our study illustrated this when a student did not self-identify as food insecure although their answers and the screening question results suggested otherwise.

Related to stigmatization is the feeling of guilt, a theme that was present across the different open-ended questions of the online survey. This was characterised by students not wanting to feel like a burden to their parents but also not perceiving themselves as “needy enough” to make use of the resources on campus.

A juxtaposition of stigmatization is the normalization of the starving student narrative during post-secondary education. In many academic studies, students have expressed that food shortages and reliance on low-quality and convenient food is part of the typical student experience.
experience (Maynard et al., 2019; Nikolaus, Ellison, & Nickols-Richardson, 2019b). Thus, food insecurity is seen as a trade-off for accessing higher level education (Maynard et al., 2019). This point was highlighted by the key informant who stressed that “the starving student ideology [is] not healthy” and goes on to challenge the fact that it is seen as a joke and that’s why graduate students are lured into events with free food.

4.3 LIMITED USE (AND LACK OF AWARENESS) OF RESOURCES ON CAMPUS

It was alarming to find more than half of the food insecure students not making use of available resources on campus such as the UBC Food bank, FOOOD Cafe and ES advising. Some explanations from respondents as to why this is the case relate to “having limited time”, feeling “ashamed”, or more importantly, not being aware of their existence.

Arguably, the main resource on campus for food insecure students is the UBC Food Bank. However, from the 38 identified food insecure students, only four of them have made use of it, and only two expanded on their experience in the open ended questions. One of the students mentioned that the fear of running into someone they know had stopped them from going more often. The second student commented that they had made use of a food bank, but not the one at UBC. However, “[they] have heard feedback from people that HAVE used the [UBC] food bank, that they are made to feel like food stealing criminals when they visit because they are asked to justify their needs and it makes them uncomfortable to go back’.

This relates back to stigmatization and feelings of guilt; enforcing the need to destigmatize the food insecurity population as it seems to be currently hampering the ability of food insecure students to access the UBC Food Bank.

Regarding other available resources on campus such as volunteer-run cafes and current UBC food initiatives, one food insecure student mentioned “the FOOOD Cafe was a good option” and it was used as a resource as well as a coping strategy. Other students applauded and recommended to expand this initiative by incorporating it into other food outlets around
campus. However, given that only three food insecure students had commented on this particular initiative, this could be indicative that the initiative is not fully reaching the desired population. Even though it can be considered a good initiative, an increased awareness of available resources is still needed.

4.4 COPING STRATEGIES OF FOOD INSECURE STUDENTS

When mentioning coping strategies of students, it is important to note that the recorded responses usually contained two or more answers, meaning that students rely on multiple coping strategies. This aligns with Maynard’s (2016) study whose finding revolved around post-secondary university students developing a variety of coping strategies which could be used all at once or at different times. However, where our study diverges from the findings in the literature is in regards to the most common coping strategy. Frank (2019) alleges that the main response of students is to ask for money from families and friends. In this study, the most common strategy was bringing food from home, followed closely by reducing their food intake. The difference in these findings could be linked to the feelings of shame and burden that were addressed previously. The theme of coping strategies is especially noteworthy during the current COVID-19 crisis as a higher percentage of food insecure students live on-campus. Resources such as the volunteer-run cafes are no longer in operation, and arguably, COVID-19 is highlighting the importance of creating a resilient food system on campus that also provides for the food insecure students living at UBC.

4.5 CRITICISM OF UBC FOOD SERVICES

Although it was mostly food secure students who criticized the expensive nature of meals offered by UBC food services, food insecure students also expressed their discontent with the food prices on campus. When affordability is an issue, students resort to reducing their food intake by buying smaller portions or buying cheap meals that are considered low quality but still fulfilling. Soup was mentioned as an example by one student.

“Rez food is crazy expensive and UBC is rippin vulnerable students by taking advantage of something that everyone needs everyday: food” (Food Insecure Student, Online Survey)
There is also something to be said about food insecure students reducing their food intake to manage their finances. In the words of a student: “in an attempt to avoid going into further debt by buying food, I am reducing the amount of food I buy over the next month”. The question arises as to whether this would be alleviated by more accessible food prices or if finance management skills are needed. Lowering meal prices, especially in-residence dining halls, was the most prevalent recommendation voiced by food insecure students in our study.

This discontent is not new. A previous SEEDS study on the quality, availability and affordability of food on campus found 50% of their respondents were “very dissatisfied” with the cost of healthy and nutritious food (Chan et al, 2010). A fellow SEEDS project on Food Affordability at UBC, found that 60% of students thought food prices were too high (Gangbar, Jiao, Lin, 2020). Although these concerns are valid - healthy foods in residences do cost more (Brunetti, 2002) - this SEEDS study highlights the disconnect between a student’s perception of food prices and awareness as to why food on campus has a certain price. UBC Food Services’ use of ingredients that are 60% locally procured, their compromise to provide competitive pay to workers which translates to a compensation above minimum wage, and investment on composting infrastructure among others (UBC Food Services website), is what ultimately gets reflected in the price of food. This is an opportunity for starting a more widespread conversation between UBC Food Services and students, and possibly shift the conversation towards the factors that could help improve affordability for students on campus.

5. LIMITATIONS

As previously mentioned in the methods section, the FG sessions experienced low turnout during the first two weeks. However, on March 16th, 2020, upon UBC’s response to COVID-19, classes transitioned online, and all on-campus and off-campus events were cancelled (UBC Campus Notifications). Therefore, we were
unable to carry out the last two FG sessions which were targeted towards LGBTQIA2S+ and Diversability students. Discussions about carrying the FG sessions online arose but given that there were no RSVPs up to March 16th, the team decided to make the online surveys the primary data collection tool and concentrate our efforts in the distribution of the online survey link through social media.

6. RECOMMENDATIONS

The following recommendations were designed based on results derived from the thematic analysis of the online survey, and the input from our key informant. This section is separated into recommendations for action and recommendations for future research.

6.1 RECOMMENDATIONS FOR ACTION

Increase Awareness of Food Insecurity on Campus

The stigmatization around the use of the AMS food bank and other initiatives to reduce food insecurity on campus limits their use and effectiveness. Hence, increasing awareness of food insecurity on campus can help with the de-stigmatization of this issue. We recommend UBC Wellbeing to spearhead this conversation which should be held at both the higher stakeholder level and at the student body level. To achieve this, we propose the following two advocacy tools:

Advocacy Tool 1: Digital Signage

Digital signages are available all over campus and, due to their high visibility, provide a way to fully engage with viewers using graphics. We advise the use of infographics and storyboards which can incorporate food insecurity statistics, direct quotes from food insecure students and secondary data from other Canadian universities. Displaying this initiative on the central screen in the AMS Student Nest would be most effective in terms of engagement due to its high traffic location. These can be displayed all through the 2020/2021 school year. The following is an example of a storyboard that could be included in the digital signage:
Advocacy Tool 2: Video Series

A Food Insecurity Awareness segment can be added to the “This Week at UBC” YouTube video series and can run at the beginning of the 2020/2021 school year. We propose that this video series addresses three fundamental components. The first is to describe the current food insecurity situation on UBC campus to increase awareness. The second is to share experiences of one or two food insecure spokespersons – these would be food insecure students who feel comfortable sharing their experiences on camera. This component is important for relatability of the everyday student life and to evoke empathy amongst viewers. It would also help to open up the conversation which would consequently lead to de-stigmatization. The third is to boost awareness of resources by advertising the hours of operations and location of current initiatives such as the FOOOD cafe and the AMS Food Bank.

In addition to these advocacy tools, we recommend tours to the AMS Food Bank during the Jump Start program and incorporating handouts with a detailed list of the available resources in the first year student package starting this upcoming 2020/2021 school year.

Increase Awareness and Accessibility of Resources on Campus

Our second recommendation to UBC wellbeing is increasing the awareness and accessibility of current resources on campus. To achieve this, we propose to increase the Sustainable Food Access Fund; an assessment fee incorporated in student tuition which was created to aid in the affordability of Sprouts Cafe, Agora Cafe, Roots on the Roof, and the UBC Farm (Agora Cafe, 2019). We recommend that this fund be increased with the following objectives:

1. To further subsidize food in these locations which can mitigate some of the financial burden of food insecure students.
2. To finance new food security initiatives and expand on current initiatives (more locations, capacity building etc.)

The second objective is a direct response to students’ request for more food security initiatives. Increasing the Sustainable Food Access Fund can be done through money reallocation of student fees such as the Ubyssey Publication fee or other non-essential fees that students continue to pay. We also suggest transparency to students about funding reallocation which also provides another channel to increase awareness of the food insecurity on campus. UBC Wellbeing can present this recommendation to the UBC Board of Governors during the 2021 Tuition Referendum.

6.2 Recommendations for future research

**Improve target outreach**

Our study highlighted the difficulty of targeting LGBTQIA2S+, Graduate and Diversability students. For future research, we recommend that FIAT establishes an effective outreach method tailored specifically to each group after the above recommendations have been established. For example, building a relationship with the UBC Pride Collective can provide insight on preferred location and appropriate methods of contact for LGBTQIA2S+ students. For Diversability students, partnering with the Centre of Accessibility can help cater to their specific needs. Lastly, building key contacts with the Graduate Student Society (GSS) can ensure the collaboration of graduate students in future projects.

**7. Conclusion**

Our project findings on student food insecurity are consistent with other Canadian universities. Though our results are not fully representative of the entire UBC student population, we demonstrate food insecurity impacts a student’s mental and physical well-being. This leads to adoption of coping strategies which might be hindering the full post-secondary student experience. It is important that students have adequate and secure access to healthy and preferential food without having to drastically adjust their lifestyle.

To achieve the UBC Wellbeing Strategic Framework goal of reducing food insecurity on
campus by 2025, it is imperative that the UBC student body becomes aware of the state of food insecurity on campus. This can be achieved through proactive outreach methods described in our advocacy tools. Destigmatization of the use of available resources, raising awareness, increasing access and funding and finally, fostering relationships with vulnerable student groups should be a priority when tackling food insecurity on campus.
8. REFERENCES


Ferguson, M (2004). Campus HungerCount 2004 - Struggling to Feed Hope to Canada’s Students: Food Banks Emerge in Response to Student Hunger. Ottawa: Canadian Association of Food Banks and The Canadian Alliance of Student Associations.


doi:10.1080/07448481.2019.1600522


### Appendix 1: Focus Group session schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Target group</th>
<th>Research team</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 4th (Wednesday)</td>
<td>6:00 - 7:30</td>
<td>Graduate students</td>
<td>All</td>
</tr>
<tr>
<td>March 6th (Friday)</td>
<td>4:00 - 5:30</td>
<td>Open focus group</td>
<td>All</td>
</tr>
<tr>
<td>March 11th (Wednesday)</td>
<td>6:00 - 7:30</td>
<td>International Students</td>
<td>All</td>
</tr>
<tr>
<td>March 13th (Friday)</td>
<td>4:00 - 5:30</td>
<td>Open focus group</td>
<td>All</td>
</tr>
<tr>
<td>March 18th (Wednesday)</td>
<td>6:00 - 7:30</td>
<td>LGBTQ+</td>
<td>All</td>
</tr>
<tr>
<td>March 20th (Friday)</td>
<td>4:00 - 5:30</td>
<td>Diversabilities</td>
<td>All</td>
</tr>
</tbody>
</table>

March 9th and March 16th are dates that are tentatively available and will be used as back-up plans if necessary.
Appendix 2: Screening tool for determining food insecure students

Given the reduced number of questions, participants will be identified as Food insecure if they respond affirmatively to three or more questions. Otherwise they will be classified as Food secure.

<table>
<thead>
<tr>
<th>Question</th>
<th>Affirmative (insecure) responses</th>
<th>Negative (secure) responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q.1 Have you ever been hungry, but you didn't eat because you didn't have enough money for food?</td>
<td>yes</td>
<td>No</td>
</tr>
<tr>
<td>Q.2 Given your personal experience, how true are the following statements?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Q.2.a I worry that food will run out before I get money to buy more</td>
<td>Ofter true, sometimes true</td>
<td>Never true, prefer not to answer</td>
</tr>
<tr>
<td>● Q.2.b I am unable to afford to eat balanced and healthy meals</td>
<td>Ofter true, sometimes true</td>
<td>Never true, prefer not to answer</td>
</tr>
<tr>
<td>● Q.2.c I relied on low-cost foods because I was running out of money to buy food</td>
<td>Ofter true, sometimes true</td>
<td>Never true, prefer not to answer</td>
</tr>
<tr>
<td>Q.3 Have you ever cut the size of your meals or skip meals because there wasn't enough money for food?</td>
<td>Yes</td>
<td>No, prefer not to answer</td>
</tr>
<tr>
<td>● Q.3.a How often does this happen?</td>
<td>Rarely, Sometimes, almost daily, Every day</td>
<td></td>
</tr>
</tbody>
</table>
Q.4 Do you ever eat less food than you feel you should because there isn’t enough money to buy food?

- Oftentimes true
- Sometimes true
- Never true, prefer not to answer

Appendix 3: Pre-focus group survey

Q1 How long have you been in the UBC campus?
  - 1st year at UBC
  - 2nd year at UBC
  - 3rd year at UBC
  - 4th year at UBC
  - 5 or more years at UBC

Q2 Which level of studies are you enrolled in?
  - Undergraduate
  - Graduate

Q3 Where do you live?
  - On-campus
  - Off-campus

Q4 Do you identify as:
  - Male
  - Female
  - Non-binary
  - Transgender
  - Prefer not to say
Q5 If these categories do not accurately reflect how you identify yourself, please use this space to write in your response

________________________________________________________________

Q6 Do you identify as: (Select as many as you wish)

☐ LGBTTQIA+ (Lesbian, Gay, Bisexual, Transgender, Two-Spirited, Queer, Intersex, Asexual+)
☐ Aboriginal (First Nations, Metis, Inuit)
☐ International student
☐ Visible minority
☐ Person with a disability
☐ Prefer not to answer
☐ None of the above

Q7 How many courses are you currently enrolled in this semester? (If your course includes multiple components such as a lab, please just count it as one course)

☐ 1-2
☐ 3
☐ 4
☐ 5
☐ More than 5

Q8 What is the source of your financial support?

☐ Family
☐ Credit cards
☐ Student loans
☐ Bursaries
☐ Scholarship
☐ Work
☐ Savings
☐ Other
Q9 Have you made use of the AMS Food Bank?
   - yes
   - No

Q10 How often?
   - Once
   - Every week
   - Every month
   - Every couple of months

The following questions will give you an opportunity to tell us more about your experiences with food.

Please answer openly and truthfully.

Q11 Have you ever been hungry, but you didn’t eat because you didn’t have enough money for food?
   - Yes
   - No

Q12 Given your personal experience, how true are the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Often true</th>
<th>Sometimes true</th>
<th>Never true</th>
<th>Prefer not to answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>I worry that food will run out before I get money to buy more</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am unable to afford to eat balanced and healthy meals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I relied on low-cost foods because I was running out of money to buy food</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q13 Have you ever cut the size of your meals or skip meals because there wasn’t enough money for food? (if you select no, skip to question 15)
   - Yes
   - No
   - Prefer not to answer

Q14 How often does this happen?
   - Rarely
   - Sometimes
   - almost daily
   - Every day

Q15 Do you ever eat less food than you feel you should because there isn’t enough money to buy food?
   - Often true
   - Sometimes true
   - Never true
   - Prefer not to answer

Appendix 4: Focus group guide script

Setup:
Poster outside the door: “Focus group session”
Inside the room: A white board with the social contract for the focus group and the group email.
Setting: Sitting in a circle & food

Social contract:
We agree to:
1. Be respectful
2. Be present
3. Be open and engage in active listening
4. Discuss the arguments and opinions, NOT the person
5. Anything discussed will not be shared with people from outside the focus group

When students arrive: (script)
Welcome! Please grab and fill this consent form, a survey, and help yourself to a sandwich, cinnamon buns and tea!

Start of Focus group:
After everyone is sitting down, we will start by thanking them for their participation followed up by a brief introduction of the research.

“We would like to start by thanking you for taking the time to come and share your experiences in this focus group. We are a group of LFS450 students (introduce the research team by saying our names), and we are working on this project that aims to help reduce student food insecurity on campus. The goal of this focus group is to learn about your lived experiences with food insecurity as well as to listen to your concerns and suggestions. We would like to reassure you that all responses will be confidential, but they will help inform new resources and programs at UBC that target student food insecurity.

We would also like to emphasize that this is a safe space and therefore anything that is said or discussed in this room should stay within these walls. If you feel uncomfortable at any time, feel free to leave the room or opt out of the focus group all together. We also ask you to be conscious of your fellow peers and respect their ideas, comments and experiences.

You can use the bathroom whenever necessary and if there is still food left, feel free to go for seconds, or thirds. Before we begin, do you have any questions?”

Start with an icebreaker question.

Closing remarks:
Thank you for being so engaged in the discussion. We truly value your time and your experiences. If you still have any questions about the research or would like to discuss anything further, don’t hesitate to send as an email to foodinsecureproj@gmail.com. Also, if you haven’t done so already, please leave for email in the email list if you would like to enter the draw for an opportunity to win one of five $20 AMS or UBC food service gift cards. Thank you!

Appendix 5: Online survey questions

Food Insecurity Project Online Survey
The following online survey is part of the LFS450 research project on Food Insecurity on campus. The aim of this project is to capture the lived experiences, feelings and suggestions of students in order to decrease the prevalence of food insecure students on campus. Please answer the questions based on your personal experiences. However, if the question does not apply to you, you can include the experiences of your UBC peers. This survey is optional, and you can opt out of it at any time. Therefore, feel free to share as much (or as little) as you want. To protect your privacy, the data collected will remain anonymous, but completion of the survey means that consent is given to use the information collected. The estimated duration of the survey is 15-20 minutes. We really appreciate the time you are dedicating to answer the survey.
Q1 How long have you been in the UBC campus?
   o 1st year at UBC
   o 2nd year at UBC
   o 3rd year at UBC
   o 4th year at UBC
   o 5 or more years at UBC

Q2 Which level of studies are you enrolled in?
   o Undergraduate
   o Graduate

Q3 Where do you live?
   o On-campus
   o Off-campus

Q4 Do you identify as:
   o Male
   o Female
   o Non-binary
   o Transgender
   o Prefer not to say

Q5 If these categories do not accurately reflect how you identify yourself, please use this space to write in your response

________________________________________________________________

Q6 Do you identify as: (Select as many as you wish)
   o LGBTTQIA+ (Lesbian, Gay, Bisexual, Transgender, Two-Spirited, Queer, Intersex, Asexual+)
   o Aboriginal (First Nations, Metis, Inuit)
   o International student
   o Visible minority
   o Person with a disability
   o Prefer not to answer
   o None of the above
Q7 How many courses are you currently enrolled in this semester? (If your course includes multiple components such as a lab, please just count it as one course)

- 1-2
- 3
- 4
- 5
- More than 5

Q8 What is the source of your financial support?

- Family
- Credit cards
- Student loans
- Bursaries
- Scholarship
- Work
- Savings
- Other

Q9 Have you made use of the AMS Food Bank?

- Yes
- No

Q10 How often?

- Once
- Every week
- Every month
- Every couple of months

The following questions will give you an opportunity to tell us more about your experiences with food.

*Please answer openly and truthfully.*

Q11 Have you ever been hungry but you didn't eat because you didn't have enough money for food?

- Yes
- No
Q12 Given your personal experience, how true are the following statements?

<table>
<thead>
<tr>
<th></th>
<th>Often true</th>
<th>Sometimes true</th>
<th>Never true</th>
<th>Prefer not to answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>I worry that food will run out before I get money to buy more</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>I am unable to afford to eat balanced and healthy meals</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>I relied on low-cost foods because I was running out of money to buy food</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

Q13 Have you ever cut the size of your meals or skip meals because there wasn’t enough money for food? (if you select no, skip to question 15)

- Yes
- No
- Prefer not to answer

Q14 How often does this happen?

- Rarely
- Sometimes
- almost daily
- Every day

Q15 Do you ever eat less food than you feel you should because there isn’t enough money to buy food?

- Often true
- Sometimes true
- Never true
- Prefer not to answer
Q16 From your own understanding, what does “food security” mean to you?

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Q17 Food insecurity is when sometimes people don’t have enough money to purchase food, don’t have access to nutritious and healthy food, may sometimes decide to skip meals, among others. Could you share with us a time when you or a friend experienced this?

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Q18 How has food insecurity impacted someone you know or your own daily decision-making process compared to when you or that person were not food insecure?

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Q19 In order to overcome food insecurity, what coping strategies have you made use of?

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
Q20 UBC has resources available to support students who are food insecure (such as the AMS food bank). What are some resources you have used before or are currently using?

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Q21 What are some policies/resources/support programs that you think could be useful for reducing food insecurity on campus?

________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________
________________________________________________________________

Q.22 If you would like to be contacted in the future for follow-up interviews or programs, please leave your email below:
Appendix 6: List of contacts

<table>
<thead>
<tr>
<th>Person of Contact</th>
<th>Department</th>
<th>Email</th>
<th>Sent</th>
<th>Responded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan Stone</td>
<td>AMS Food Bank</td>
<td><a href="mailto:Services@ams.ubc.ca">Services@ams.ubc.ca</a></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Eric Lowe</td>
<td>AMS News Letter (Early March)</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Holly Dysselinck</td>
<td>Brock Commons &amp; Iona House</td>
<td><a href="mailto:holly.dysselinck@ubc.ca">holly.dysselinck@ubc.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emma Chartrand</td>
<td>Acadia Park</td>
<td><a href="mailto:emma.chartrand@ubc.ca">emma.chartrand@ubc.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kawa Ada</td>
<td>Fairview Crescent &amp; Fraser Hall &amp; Thunderbird</td>
<td><a href="mailto:kawa.ada@ubc.ca">kawa.ada@ubc.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amy Stewart</td>
<td>Marine Drive</td>
<td><a href="mailto:amy.stewart@ubc.ca">amy.stewart@ubc.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linzi Wong &amp; Joe Stevens</td>
<td>Orchard Commons</td>
<td><a href="mailto:linzi.wong@ubc.ca">linzi.wong@ubc.ca</a> &amp; <a href="mailto:Joseph.Stevens@ubc.ca">Joseph.Stevens@ubc.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mason Margotta &amp; Charlene Chia</td>
<td>Place Vanier</td>
<td><a href="mailto:Mason.Margotta@ubc.ca">Mason.Margotta@ubc.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lyndon Duncan</td>
<td>Ponderosa Commons</td>
<td><a href="mailto:lyndon.duncan@ubc.ca">lyndon.duncan@ubc.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linzi Wong</td>
<td>Ritsumeikan-UBC</td>
<td><a href="mailto:linzi.wong@ubc.ca">linzi.wong@ubc.ca</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bailey Kew &amp; Paul Lee</td>
<td>Totem Park</td>
<td><a href="mailto:Bailey.kew@ubc.ca">Bailey.kew@ubc.ca</a> &amp; <a href="mailto:swpaul.lee@ubc.ca">swpaul.lee@ubc.ca</a></td>
<td></td>
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</tr>
<tr>
<td>Katie MacGregor</td>
<td>Walter Gage</td>
<td><a href="mailto:katie.macgregor@ubc.ca">katie.macgregor@ubc.ca</a></td>
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<td></td>
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<tr>
<td></td>
<td>Engineering Undergraduate Society</td>
<td><a href="mailto:eneus@ubcengineers.ca">eneus@ubcengineers.ca</a></td>
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<tr>
<td></td>
<td>Architecture &amp; Landscape</td>
<td><a href="mailto:communications@ala.ubc.ca">communications@ala.ubc.ca</a></td>
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<tr>
<td></td>
<td>Arts - First Nations House of Learning</td>
<td><a href="mailto:fhl.assistant@ubc.ca">fhl.assistant@ubc.ca</a></td>
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<tr>
<td></td>
<td>Medicine - School of Population and Public Health</td>
<td><a href="mailto:info@spph.ubc.ca">info@spph.ubc.ca</a></td>
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<tr>
<td></td>
<td>Neuroscience - NeurophysList</td>
<td><a href="mailto:majordomo@interchange.ubc.ca">majordomo@interchange.ubc.ca</a></td>
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</tr>
<tr>
<td>Martin Au-yeung - VP Communicat</td>
<td>Science Undergraduate Society</td>
<td><a href="mailto:vcommunications@sus.ubc.ca">vcommunications@sus.ubc.ca</a></td>
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<tr>
<td></td>
<td>Art Undergraduate Society</td>
<td><a href="mailto:aus.president@ubc.ca">aus.president@ubc.ca</a></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Forestry Undergraduate Society</td>
<td><a href="mailto:fusspecialevents@gmail.com">fusspecialevents@gmail.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annie Chen</td>
<td>Commerce Undergraduate Society</td>
<td><a href="mailto:vpmarketing@cus.ca">vpmarketing@cus.ca</a></td>
<td></td>
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<tr>
<td>Nadin Nurali</td>
<td>Engineering Undergraduate Society</td>
<td><a href="mailto:vpmcomm@ubcengineering.ca">vpmcomm@ubcengineering.ca</a></td>
<td></td>
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<tr>
<td>Karmen Leong</td>
<td>Kinesiology Undergraduate Society</td>
<td><a href="mailto:vpmcommunications@kines.ubc.ca">vpmcommunications@kines.ubc.ca</a></td>
<td></td>
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<tr>
<td>Kristin Fuchthara</td>
<td>LFS Undergraduate Society</td>
<td><a href="mailto:fsus.vcommunications@landfood.ubc.ca">fsus.vcommunications@landfood.ubc.ca</a></td>
<td></td>
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<tr>
<td>Jenny Liu</td>
<td></td>
<td><a href="mailto:externai@vseus.ca">externai@vseus.ca</a></td>
<td></td>
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</tbody>
</table>

Green Highlight = People that indicated they posted it via their channels

Appendix 7: Results from key informant

**Effects of Food Insecurity on Key informant**

- Difficulty maintaining iron levels
  - Severely affects energy levels (especially around menstruation)
  - Affects choices in birth control (had problems when using a Copper IUD)

**Coping Strategies Used to Minimize the Effects of Food Insecurity**

- Meals aren’t “fulfilling” due to nutritional value - eating more nutrient dense foods that didn’t fit personal preferences such as spinach.
  - Often refuses to go out with friends in order to save money

**Recommendations Suggested by Key Informant**

- Incorporate flexible volunteer hours at the UBC Farm
- More varied time slots for Farmers Markets on campus throughout the week
- Felt more stressed overall due to budgeting, concerns about the volume of food per day
- Overall eating less, decreased food intake

| • Does meal prep at the beginning of the week for a week’s worth of food | • Increase the 20% discounts that students get from buying produce at the UBC Farm |
| • Only purchases things second hand. | • Cheaper CSA (Community Supported Agriculture) boxes for students who live on campus |
| • Drinking more coffee to feel full (and thus able to spread out her meals to last a few extra days) | • Decrease stigmatization regarding food insecurity and grad culture such that the “starving student” stereotype is taken more seriously. |
| • Forgo personal ethics (i.e. Supporting local/small businesses, buying local organic produce) and shop for low cost produce at cheaper, corporate chain grocery stores | |
| • Attending events with “free food” as the incentive on campus | |
| • Using grad student specific resources to help with budgeting | |
| • Forgoes non-essential expenditures to allow for a bigger food budget (i.e. Alcohol, streaming services, plane tickets to visit family) | |
| • Use vitamin and mineral supplements to offset the effects of low nutritional intake daily | |
Figure 3. The poster that was printed and hung around campus for recruitment.
Figure 4. Recruitment piece used for social media and electronic announcements

Feed Change, Serve the Campus

Giving Food Insecure Students a platform to induce change and help decrease Food Insecurity on campus

We are looking for individuals who identify as food insecure to join us in sharing their experiences as food insecure students on campus.

Feel free to join our focus groups, food will be provided!
Figure 5. Figure 5 a-c are slides designed by Lyncee Dela Cruz for digital signage set-up around campus.