



# Food Security among Dalhousie Students

## Abstract

[An investigation into the vitality of the Dalhousie Student Union Food Bank]

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## Executive Summary

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This concluding report explores the progression of an investigation into the vitality of the Dalhousie Student Union Food bank (DSUFB). Located in basement of the Dalhousie Student Union Building, the DSUFB offers food aid to anyone on campus. Food security is broadly defined as having physical, social, and economic access to sufficient quantities of safe and nutritious food to meet dietary needs for a healthy life (Lammers et al., 2009), however definitions can vary. In the context of Canada, food security includes physical access to affordable and appropriate food, retail venues, sufficient income, and that people can obtain food in a dignified manner (Dowler & Connor, 2012). Prior to data collection, we undertook preliminary research to get a background for what food security meant in various cases. We rationalized our study by exploring what food security was, how it is connected to sustainability, why it is now a prominent issue, and how Dalhousie University fits into the larger issue of food insecurity.

Our investigation stems from two questions. (1) What barriers to food security have necessitated student's use of the food bank? (2) What actions can the university take to increase food security on campus? Methodology of research included an 18-question survey administered to users outside the food bank doors, and an analysis of demographic data collected by the food bank over the past year. The survey consisted of a variety of question types (both qualitative and quantitative), designed to gain information about the food bank users, why they utilized the resource, and what could be done to improve the food bank for their benefit. With a sample population consisting of solely Dalhousie students who use the DSUFB, non-probabilistic sampling was used. The vulnerability of this food insecure population required us to be cautious in our approach. For this reason, each survey was anonymous to protect the privacy of participants. Based off a sample of 22 answered surveys, our findings concluded that the majority of users learned about the service via word of mouth. Our starkest finding was the overrepresentation of international students and Transition Year Program Students. As a result recommendations for improvement were made, including the need for better visibility and increased frequency of advertising throughout campus. Additionally, Dalhousie should voluntarily cap tuition to ease burden on students and make targeted needs-based grants available to vulnerable students.

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## Research problem

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This exploratory research project investigated the experiences of Dalhousie Food Bank users. Our investigation sought to understand what factors necessitate students' use of the food bank.

During preliminary research, we gained an understanding of linkages between food insecurity and economic pressures such as, income and school costs. Food security is a significant and growing issue in developed nations (HungerCount, 2014). It is socially unsustainable and has links to other environmental and sustainability issues, like food wastage, food injustice and other concerns (Booth & Whelan, 2014). Therefore, research investigating hunger and food aid within our own community is timely and crucial to moving towards a sustainable future.

### **Research questions**

- What barriers to food security have necessitated students' use of the Dalhousie Student Union Food Bank (DSUFB)?
- What actions can the university take to increase students' food security?

### **Approach**

We answered the first question by means of direct research:

- a. An 18-question survey administered to all food bank users prior to entering the DSUFB;
- b. An analysis of demographic data collected by the food bank over the past year.

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## **Rationale**

### **What is Food Security?**

This study assesses the experiences of the DSUFB users with food insecurity. Users were surveyed on their experiences with food insecurity and associated economic pressures. Food security is broadly defined as having physical, social and economic access to sufficient quantities of safe and nutritious food to meet dietary needs for a healthy life (Lammers et al., 2009). In the context of a wealthy, industrialized nation like Canada, food security includes physical access to affordable and appropriate food retail venues, sufficient income to purchase food, and the ability to obtain food in a dignified way (Dowler & O'Connor, 2012). The existence and use of food banks indicates an extreme and systemic food security problem, since food-insecure individuals and households tend to view them as a last resort (Lambie-Mumford & Dowler, 2014). Collected data shows that only 20-30% of people facing food insecurity tend to use food banks (Tarasuk et al. 2014). This means that food bank users represent only those facing most acute and severe food insecurity.

### **How is it linked to sustainability?**

Food banks are only one symptom of a broader problem. Therefore, studying the issue of food insecurity solely through food banks is too narrow of an approach. This approach, implied by the neoliberal “consumerist model”. This places responsibility on individuals for navigating the economic system and making prudent food-purchasing decisions (Dowler & O'Connor, 2012). However, informed activists and scholars suggest a different framing for the issue. Systemic issues with food insecurity can be better understood, they suggest, by recognizing the context of an increasingly neoliberal state, the global economic system, a food distribution system that makes only low-quality food financially affordable and accessible, and a socially and environmentally destructive food-production system (Lightbody, 2007; Loopstra & Tarasuk, 2012; HungerCount, 2014; Booth and Whelan, 2014; Hanlon & Carlisle, 2014).

Food bank use is a rough indicator of food insecurity. The proliferation of food banks in developed countries can be traced back to the 1980s (Loopstra & Tarasuk, 2012). In wealthy nations, food insecurity is a result of the dismantling of the social security net motivated by neoliberal economic and political beliefs. In the neoliberal worldview, governments are only responsible for ensuring that individuals and bodies are free to trade. Responsibility for welfare is a personal issue. Australia, the UK and Ireland have seen similar expansion of food insecurity in recent decades (Dowler & O'Conner, 2012; Booth & Whelan, 2014). As Canada

has transitioned from a welfare state to one more governed by neoliberal ideals of austerity and individual responsibility, we have seen social sustainability problems like child poverty and food insecurity persist (Lightbody, 2007). Additionally, mechanisms of social security like welfare and unemployment insurance are not only financially inadequate, but dehumanizing (HungerCount, 2014). Individuals are obliged to navigate complex bureaucracies based on the premise that most people are looking to illegitimately profit from the system (HungerCount, 2014). The current policy model, which pushes responsibility onto individuals and abdicates state responsibility, has profound repercussions.

If focus is narrowly placed on food banks, it is hard to see connections to broader environmental and social sustainability issues. Food banks are a last-resort strategy for individuals, and although they may help people survive crisis periods, they are inadequate in addressing issues of food insecurity (Lambie-Mumford & Dowler, 2014). Food insecurity is a serious problem, with strong links to both an economic system that produces inequality and a food production and distribution system that destroys social and environmental capital (Booth & Whelan, 2014). Healthy and accessible food from a nutritional and economic perspective is incontrovertibly the major component of food security. However an exclusive focus on this ignores the role of food in personal contentment, inter-personal relationships and cultural engagement (Hanlon & Carlisle, 2014). Olivier de Schutter, UN Special Rapporteur on the Right to Food, has said that the growth of food banks in wealthy countries is an indicator of social policy failure and bad faith on the part of governments (Booth & Whelan, 2014).

### **Why is it an issue now?**

As previously discussed, food bank use rose in the 1980s. This increased food bank use was prompted by a global economic downturn and the ascendancy of neoliberal “austerity” policy in western states (Loopstra & Tarasuk, 2012; Tarasuk et al., 2014). Canadian food banks have seen a 25% increase in use since 2008 and use continues to rise every year (HungerCount, 2014). Providers of food aid in Canada point to increasingly inadequate social assistance programs as the cause of increased reliance on their programming— around half of food bank users are on welfare and another almost 20% receive disability payments (HungerCount, 2014).

Welfare payments in Canada for single people are consistently lower than those for other developed countries, and well below amounts required to fit the definition of food insecurity cited above (HungerCount, 2014). Food banks run by charitable organizations and non-governmental organization are the main social response to hunger in Canada. However, neither provincial nor federal governments have coherent policy responses to food insecurity other than the promotion of food banks (Tarasuk et al., 2014). Given the lack of commitment of both the federal government and the government of Nova Scotia to food programming outside supporting Feed Nova Scotia, it is unlikely that major reforms or projects will be introduced to turn increasing food insecurity in Canadian households around (CFS, 2015).

### **How does the University fit into the larger problem of food insecurity?**

Analysis from Food Banks Canada indicates that 2.09% of Nova Scotians use food banks and only 0.8% of these are enrolled in post-secondary institutions (HungerCount 2014). These figures would indicate that about 150 students in Nova Scotia use food banks. Given that the Dalhousie Student Union Food Bank alone estimated it serves 40 people a week in 2011, these numbers don't reflect the scope of the problem (Bloom, 2011). Additionally, food bank users represent a minority of the population who face food insecurity. Many students in Nova Scotia come from middle-class and upper-middle-class families (O'Neill, 2010). This may offer a buffer against severe food insecurity for some students. It does not mean, however, that a significant food security problem among economically disadvantaged and socially marginalized students does not exist.

In the general population, major drivers of food insecurity are an increasingly inadequate social security net and loss of blue-collar jobs (HungerCount 2014). The collapse of well-paying blue collar jobs may also be driving students from low-income families to choose expensive post-secondary training. These factors may be heterogeneous among different groups; for example, Indigenous students may be less able to access funds for postsecondary education because the federal assistance for aboriginal students has not been expanded at the rate of population growth (CFS, 2015). Targeted programs like the Transition Year Program help Aboriginal and Black students enter University (<http://www.dal.ca/faculty/cce/programs/transition-year-program.html>).

Food, shelter and personal expenses account for an average of 50% of a university student's expenditures; tuition and school-related expenses account for the other half (O'Neill, 2010). Student activists emphasize the difficult choices students have to make between paying tuition, paying rent, and paying for groceries (CFS, 2015). The 2010 O'Neill report to the Nova Scotia government minimized the effects of increasing tuition fees on marginalized students. The current provincial government seems unlikely to take steps to offer more support to students (CFS, 2015). At the end of our data collection period, the Nova Scotia Government announced the new Memorandum of Understanding with Universities. No tuition caps are in place for the 2015/2016 year, and out-of-province and international tuition fees are completely deregulated (CBC News, 2015). This will only increase economic pressures on students. Given existing student food insecurity and inadequate government, we asked the question: what are the external circumstances that lead to food insecurity among users of the DSUFB?



# Background & Literature

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## §1 FOOD SECURITY

Food security, broadly defined, means that all members of a population have physical and economic access to a sufficient quantity and quality of food to live healthily (Lammers et al., 2009). Beyond meeting recognized nutritional requirements, food secure individuals and households are able to readily obtain food without sacrificing other needs, such as housing, medical care or education (Dowler & O'Connor, 2012). Health Canada uses the Household Food Security Survey Module, which was adapted from the US government model (Health Canada, 2012). The Canadian version of this survey includes 18 questions, the first of which reads as follows, "I worried whether my food would run out before I got money to buy more: was that often true, sometimes true, or never true for you in the last 12 months?" To analyze the data, answers are coded and aggregated, with scores corresponding to "sometimes true" and "often true" indicating moderate and severe food insecurity respectively (Economic Research Service USDA, 2012). Food insecurity is a chronic stressor that can be assessed independently of poverty (Leung, 2014). Associated effects include diet-sensitive disease like cardiovascular disease; type 2 diabetes and gestational diabetes (Leung, 2014).

Most households dealing with food insecurity are obliged to sacrifice quality of food before sacrificing quantity of food (Hamelin, Mercier & Bedard, 2010). This can be measured in a number of ways; one of the most thorough is the Healthy Eating Index (HEI). Based on American dietary guidelines, the HEI looks at both adequacy and moderation of diet components. In laymen's terms, this means assessing whether people are getting enough nutritional food and limited enough amounts of unhealthy food. It uses a density approach – comparing nutrients and food components to the calorie content of that food. Researchers can use a number of ways to collect data; for example, they may ask research participants to list amounts of all food eaten in the last 24 hours. Then, they break down food eaten into each component listed in the HEI and assess the amount of each food subgroup and appropriate ratios and score the diet (Guenther et al., 2013). Food security has a number of components, but in the Canadian public policy context, food security is limited to considerations of access and nutrition.

As stated above, food insecurity is a prevalent problem in Canada, and by looking at the issue solely through the lens of food banks, food insecurity can be too narrowly framed as having enough food in the fridge (Booth & Whelan, 2014). For one, food insecurity is far broader than food bank usage numbers would suggest. In keeping with findings across the developed world, Loopstra and Tarasuk's Toronto study found that while 75% of low-income households experienced food insecurity, only 23% accessed food banks (Loopstra & Tarasuk, 2012). Food Banks Canada estimates it provided food to 1.8 million people in 2014; in 2012, about 4 million Canadians lived without food security (HungerCount, 2014). Food banks may also act to depoliticize the issue of food security. While organizations like Food Banks Canada make broader socio-political arguments and engage in the debate, governments in Canada, as in other developed nations, tend to restrict their food policy to promoting donations to food banks (Tarasuk et al., 2014). Under this policy model, where food insecurity is framed as an individual hardship ameliorated by charitable acts, the government does not have responsibility to ensure access to food as a human right (Dowler & O'Conner, 2012). Therefore, they are not obliged to intervene to, for example regulate wages in relation to food prices.

Food quality is also a major issue. Increasingly, there is a gap between high-nutrition high-value foods marketed at and accessible to wealthier 'consumers' and cheap, processed, low-value foods accessible to less wealthy 'consumers'. The system is failing those of lower socio-economic status by failing to insure they have adequate income, and by offering unhealthy, low-quality foods at more affordable prices (Dowler & O'Connor, 2012). This low-quality food has a number of physiological and emotional effects on food-insecure individuals and food bank users; it also tends to be food produced in a highly environmentally destructive manner (Booth & Whelan, 2014).

## **§2 FOOD BANKS**

Food banks are not the solution to food insecurity, and positing them as such narrowly frames the issue in ways that absolve governments from addressing root issues of food insecurity and sustainability. However, they play an important role in assisting severely food insecure individuals and are important indicators of food insecurity. Food banks are worthy institutions in their own right. They are also important for what they can tell us about broader issues of food security. Attitudes about social responsibility can trickle down: a 2010 study found that food

bank donor representatives, managers and workers – those expected to be most sympathetic and knowledgeable – consistently underestimated the effect of poor food quality and the psychological stress of food insecurity, and also judged food insecure households to be less competent at budgeting and managing food (Hamelin, Mercier & Bedard, 2010). In Canada, households that rely on government assistance make up the majority of food bank users. Due to inadequate support, they face levels of destitution that force people to use food banks (HungerCount, 2014). “There is an income threshold below which even the most talented households are unable to achieve food security” (Hamelin, Mercier & Bedard, 2010)<sup>1</sup>

Overall, 62% of food insecure households in Canada rely on employment income – they tend to use food banks less. Barriers include not believing personal circumstances warrant asking for help, stigma associated with food bank usage, concerns about the quality of food aid, physical barriers to access like distance and opening hours, and food bank policies (HungerCount, 2014). Again, issues of food quality arise as a barrier to food bank use (Hamelin, Mercier & Bedard, 2010). Consumption of highly palatable foods (high in fat, salt or sugar) may be used as a coping mechanism. Low-income adults are less likely to meet important dietary guidelines, and very low food security is particularly associated with higher dietary intakes of palatable and unhealthy foods (Leung, 2014).

### **§3 DALHOUSIE FOOD BANK**

The DSUFB was started 2003 after four School of Social Work students approached Live Well @ Dal. In 2012, the food bank moved to the Student Union Building (Bloom, 2013). In 2012/13, the DSUFB received 10-12 banana crates of food from Feed Nova Scotia on Thursdays and most of it would be gone by Friday (Bloom, 2013). Today, the food bank receives closer to 30 boxes a week, according to group member and Food Bank volunteer Desiree Lethbridge. The DSUFB is a member of Feed Nova Scotia and one of 86 food banks in HRM (Jamieson, 2014). In winter 2014, they submitted a referendum question to the Dalhousie Student Union for 25¢ levy which would have greatly increased the operating budget of the food bank, but were not successful (Jamieson, 2014; DSU Budget 2014/2015). However, a cooler was installed for perishables in the past year (Jamieson, 2014). The DSUFB is open at variable hours through

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<sup>1</sup> This document does not include page numbers. Information was sourced from an HTML open-access document.

the week - a schedule available here: <http://www.dsu.ca/foodbank>. As at other food banks, food quality is an issue (Bloom, 2013). Due to limited supplies at the food bank, organizers ask the students to only take one bag per week, with leeway for those with dependents. There are also shelf-specific guidelines - users can take maximum numbers of items from designated shelves (Lethbridge, D., personal communication, March 12th 2015).

Feed Nova Scotia collected for HungerCount, show that in March 2012, around 230 individuals relying on student loans as their primary source of income used food banks (Feed Nova Scotia, 2013). These students likely only represent a small fraction of those students facing food insecurity, because the majority of those facing food insecurity do not resort to food banks. In addition to the negative effects that food insecurity has on individuals cited above, students are likely to experience reduced academic performance. For instance, skipping breakfast is associated with decreased cognitive performance (e.g., alertness, attention, memory, processing of complex visual display, problem solving) among students. Deficits of specific nutrients (i.e., vitamins A, B6, B12, C, folate, iron, zinc, and calcium) are associated with lower grades and higher rates of absenteeism and tardiness among students. Hunger due to insufficient food intake is associated with lower grades, higher rates of absenteeism, grade repetition, and an inability to focus among students (CDC, 2014). Therefore, despite relatively limited numbers of Nova Scotian students relying on food banks, student hunger is a very prominent issue with serious consequences.

## Research Methods

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### **What is our sampling method?**

The population sampled consisted of solely Dalhousie students who use the DSUFB. To have the best insight into the issue of food security it was decided a survey was the most appropriate tool (refer to Appendix B). The survey consisted of 18 questions and took most participants

approximately 5 minutes to complete. The questions on the survey were designed to learn more about the DSUFB users, why they are utilizing the food bank, and what could be done to improve the food bank for their use. We used non-probabilistic sampling to not generalize the food bank user population as a whole, but to develop a unique insight into food bank user experiences. A representative sample was not possible because there was no sampling frame for this population. Two methods of recruiting participants to fill out our survey were used. The first method was setting up a table in front of the food bank and asking every DSUFB user that walked in if they would like to complete our survey. The second method to collect data was leaving copies of the surveys at the food bank with the volunteers. These surveys were accessible to potential participants at all opening hours of the DSUFB.

### **Data analysis**

A mixed methods approach was used to analyze our final data. Low sample size and high rate of incomplete forms influenced the data analysis. Exactly how it influenced the analysis will be covered when those questions are discussed.

<b>Question</b>	<b>Selected Measure</b>
1.	The mean age of the participants.
2.-7.	Counted the total number of participants in each of the response category and noted the mode of response. This section allowed us to see if any demographic, or combinations of questions, were disproportionately seen using the DSUFB.
8.	Question eight was meant to help us identify if DSUFB users utilized other food aid. We took into account two different things, calculating the percentage of users that also used other food aid, and counting the number of participants that used each of the other kinds of food aid.

9. & 10.	<p>Same approach was used as questions two through seven. The number of participants were counted in each category and the mode response was found.</p> <p>Question ten was intended to discover how DSUFB users who had been utilizing the DSUFB for over two years, felt about a hypothesized change in quality. We examined the “please explain” part in a binary fashion, sorting the responses into positive and negative categories.</p>
11. &12	<p>Questions eleven and twelve were also analyzed in the same fashion as questions two through seven. The number of each category and the mode response were determined.</p>
13.	<p>The mean percentage in each category was calculated, as well as the frequency to which each category was observed in any magnitude.</p>
14.	<p>The mean was calculated.</p>
15.	<p>Mode rank for each category of possible responses were found. This illustrated how DSUFB users prioritized their spending.</p>
16.	<p>Calculating the mean number of people in the household to assist in determining participant’s living situations.</p>
17.	<p>Question seventeen was used in combination with fourteen. The food budget for the number of dependents in the household was corrected to determine personal food budget. Which participants had dependents in the household was also noted.</p>
18.	<p>Question eighteen was intended to be analyzed using a priori content specific coding. The responses would have been disaggregated and filtered to codes such as ‘fresh, expired, hours, opening, volunteers, etc.’ However, results produced such a low response rate for that question that it was deemed unworthy of inclusion.</p> <p>Conclusions were also drawn from the combinations of questions. For example, it was noticed that international students did not work. The specific questions that were noticed to have relationships between them are addressed in the discussion section of this report.</p>

Raw user number data, collected by the DSUFB volunteers was also used, displaying the number of visits for each day of operation from September, 2014 to February, 2015 (Appendix D). Due to a lack of presence during this raw data collection, its accuracy can only be speculated. In addition to holidays, certain days were noticed to be missing. This was likely due to a lack of organization or knowledge that those volunteering on that particular day had the responsibility to keep such record. Given the delimitations in terms of time and response-soliciting on our end, we nevertheless needed this data to paint, in combination with our data, a fuller picture of use of the DSUFB.

### **Scope, Delimitations and Limitations**

Food insecure individuals are members of a vulnerable population. For this reason, we had to be particularly cautious in how we solicited participation, so as not to be coercive. Due to the sensitive nature of the research topic, the new Dalhousie Student Union Society Coordinator demonstrated some initial hesitation to the project, based on concerns of confidentiality and legal issues. As a result, the study and pilot was delayed for about one week, shortening our data collection period to two weeks. In addition, the initial plan included food incentives to those who completed the survey, but were asked not to use this method taking the vulnerability of the DSUFB user population into account. For these reasons, only 22 surveys were collected during a period estimated to consist of approximately 80 visits to the food bank (Appendix D). Surveys were anonymous to protect the privacy of participants.

The completeness of our data collection was limited as some questions, particularly the ranking questions, were left blank. We also suspect that some questions, like the question on monthly food budget, are not accurate representations of *actual* food expenditures.

## Results

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In total we had 22 participants: 12 of whom were male, and 10 of whom were female. The range of participants' ages is from 19 years to 32, with an average age of 23. DSUFB users represent almost every level of study at Dalhousie University. All participants are full time students, most of whom are undergraduates. All but one user started using food aid within the past two years.

### Survey Trends

From the surveys that were filled out, relationships were found across various questions. Here is a summary of these relationships:

1. The sample population had a mean age of 23.4 years old.
2. 55% of respondents were male.
3. 50% of respondents were from the faculties of Arts and Sciences.
4. 50% of students were from outside of Canada.
5. 95% of respondents were full time students.
6. 64% of students were undergraduates.
7. 27% students listed frequency of the food bank as 'once in a while' and 6 were listed as 'weekly'
8. 82% of the participants had not utilized other sources of food aid.
9. 77% students have been using food aid in the past year.
10. 50% chose the 'not applicable' option in terms of noticing a change in food bank quality over the past 2 years.
11. 77% of students heard about the food bank via word of mouth.
12. 77% of participants had an annual income bracket of under 5,000 dollars.
13. 36% of participants chose family assistance over 50% as the source of where their money comes from. (Note, student loans, bank loans and work was also abundant.
14. The average monthly budget for food was approximately \$207.00.
15. 68% of participants put tuition as their first priority over other categories such as food and housing.
16. Participants answering 'who lived in their household' ranged from 1-5, with 5 being the majority of responses.



17. 82% of participants answered 0 to 'how many people in the household are dependents on the food bank'.

18. The last question involved a written response, a variety of answers were provided, like 'having healthier food' and 'improved store hours' were suggested.

Figure 1 shows DSUFB users by faculty. Science students and Computer Science students are the largest groups. There are only 110 TYP (Transition Year Program) students at Dalhousie total, but the percentage of TYP students at the DSUFB is higher.

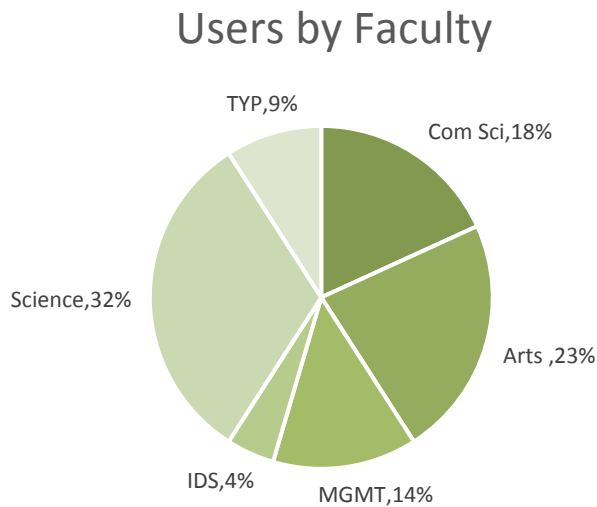


Figure 1. DSUFB users by faculty, data collected March 2015.

## Users by Place of Origin

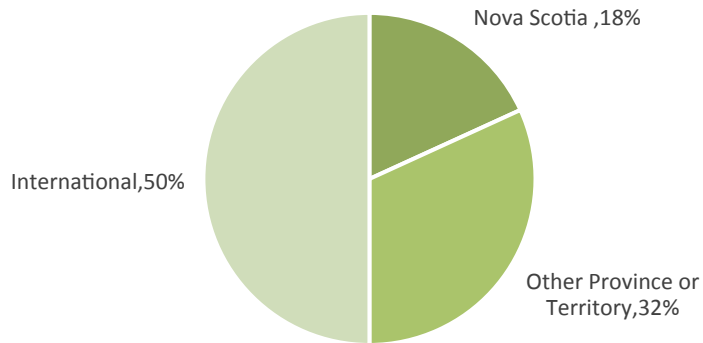


Figure 2. DSUFB users by place of origin, data collected March 2015.

## Frequency of Use

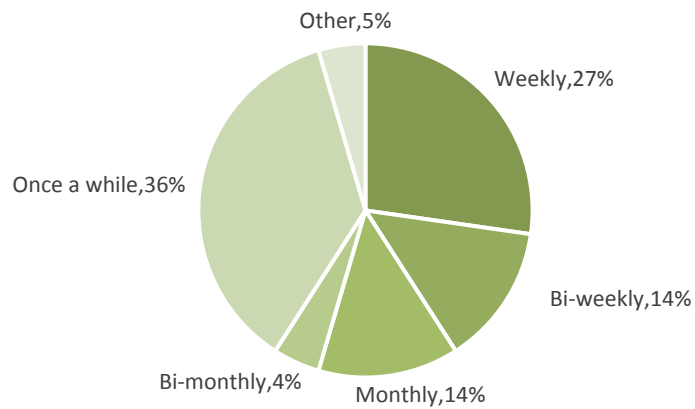


Figure 3. Frequency of use of the DSUFB, September 2014-March 2015, collected in March 2015.

Food budgets ranged between \$40 and \$400, with a mean of \$207. Variation was high, and on a number of returned surveys this question was left blank. It is likely that respondents' estimates of their food budget did not accurately represent their monthly expenditures on food.

## Monthly Food Budget

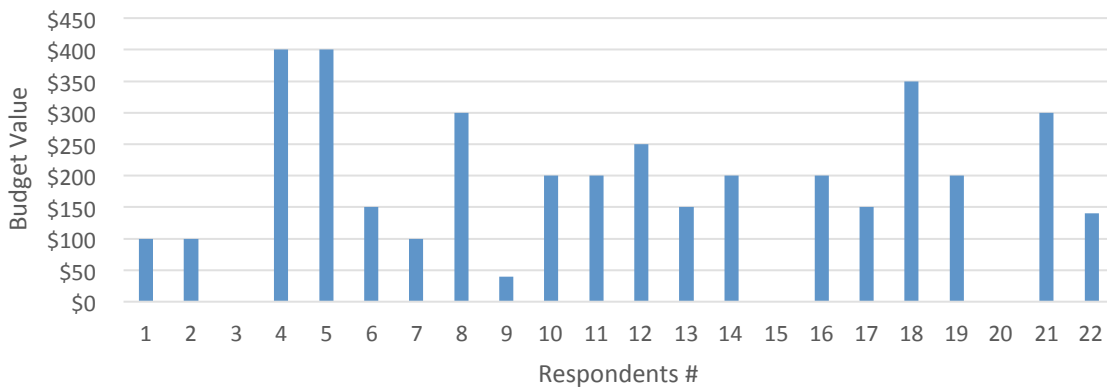


Figure 4. Monthly food budget of DSUFB users.

Figure 5 shows the annual income bracket of users. The majority of respondents reported making less than \$5 000/year. Interestingly, one DSUFB user had an annual income above \$35 000. Only one international student user has any form of income from work (refer to question 10 of the Survey). International students with a student visa were only eligible to work if registered in a co-op program.

## Income Bracket (\$/year) for Each Respondent

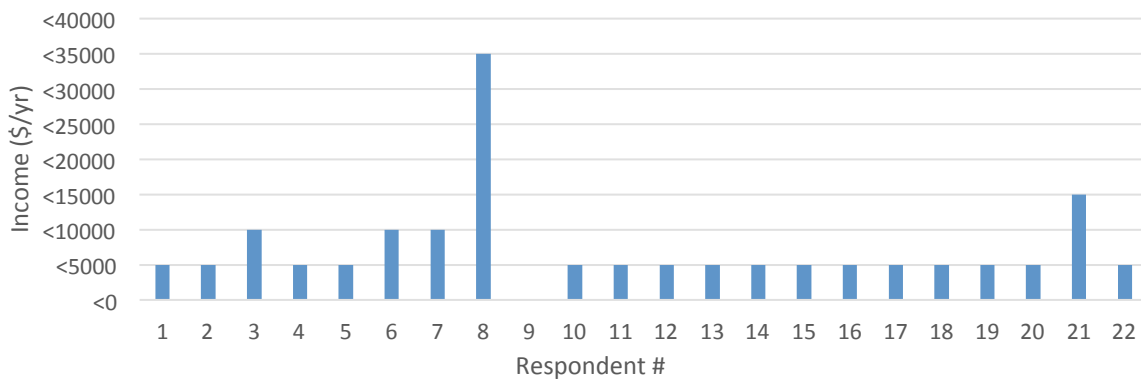


Figure 5. The annual income bracket of DSUFB users.

## How Users Were Informed of The DSUFB

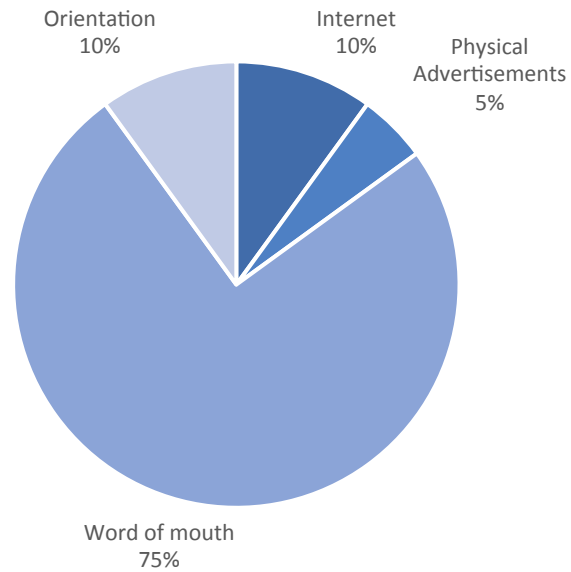


Figure 6. How users are informed of the DSUFB.

Fifty percent of users pay for the majority of their school using student and bank loans. Only a few students use scholarships, and they account for a small percentage of those students' income. Fifty-seven percent of the users who responded to this question had no income from work, and for those who did, work income made up less than half of their total income.

Aggregated ranks for spending priority are: 1: Tuition → 2: Rent → 3: Food → 4: Leisure → 5: Childcare → 6: Other. "Other" responses included, medication for chronic and transportation, which are very important and should be considered in future research.

## Discussion

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### **Summary of research questions and purpose:**

The main purpose of this study was to investigate issues surrounding food security as it relates to Dalhousie University students. Our group sought to gain insight into how users of the DSUFB were paying their bills and to gain statistics on who used the DSUFB. Finally, this study sought to discover what, if anything, the Dalhousie Student Union and Administration could do to alleviate the financial burden felt by these students. The overall objective was to gain an understanding of the average food bank user, gather feedback from DSUFB users and analyse the data in order to submit a report to both the Professor of SUST/ENVS 3502 and the DSUFB in the hopes of being an agent for improvements.

### **Significant Findings:**

This study has investigated important questions related to food security at Dalhousie University. Relatively few surveys were returned. However, the Dalhousie Student Union Society Coordinator, Isaac Gray, who runs the DSUFB, provided the expert opinion that the returned surveys reflected the experiences and concerns of DSUFB users.

As demonstrated in our results, the average DSUFB user is a young, full-time, male, International student earning less than \$5 000 a year. Fifty percent of respondents to our survey reported they did not rely on some form of student loans to pay for university or living expenses. Interestingly, Feed Nova Scotia statistics for 2013 report that about 216 users rely on student loans (Feed Nova Scotia, 2014). Because not all student food bank users rely on student loans, Feed Nova Scotia statistics do not fully represent the number of student food bank users – the numbers may be as much as two times greater.

We have further reason to believe that DSUFB users do not even include all students at Dalhousie experiencing food insecurity. The literature indicates that only about 30% of households experiencing food insecurity use food banks (Loopstra and Tarasuk, 2014). We can assume that this holds true for Dalhousie students. Additionally, 75% of our survey participants

learned about the DSUFB through word-of-mouth. Students without a friend or acquaintance willing to divulge their use of food aid are unlikely to know of this service.

An over-representation of Transition Year Program (TYP) students in DSUFB users was seen in this data. Eight percent of DSUFB users were in the TYP; but less than 1% of Dalhousie students are in the program. TYP is a university preparatory course aimed at Indigenous and Black students that strives to make the transition from high school or employment to university smooth and fulfilling. The program does offer financial aid, but the fact that there were several TYP participants in the survey indicates that this aid may not be sufficient.

International students were also overrepresented in the results. This may be for two reasons: International students must pay a differential fee, so their school costs are double that of Canadian students, and student visas do not permit their holders to work at most jobs. The data supported this – only one of the international student survey participants reported any income from jobs.

The final group that may be potentially overrepresented was students supporting dependants. While Dalhousie does not make publically available the percentage of their students with dependents, it is significantly lower than 1/5<sup>th</sup> of the population, as in the survey.

How students pay their tuition and other living expenses is vital to understanding the data and food security on campus. As stated above, the O'Neill report mentioned that the average student spends 50% of their budget on school-based costs and the rest covered living expenses. This was consistent with the data: based on answers to the ranking question in the survey, it was determined that university tuition was users' top budget priority, and food and rent came lower on the list. Since tuition is a fixed cost, and since few of the respondents received grants, students under financial pressure have fewer resources to devote to basic living costs. A strong majority of the respondents only reported using food aid in the past two years. It is possible that these new financial pressures of schooling pushed students into food insecurity.

Data obtained from the DSUFB showed increased use towards the end of the winter semester. This may be because users start to run out of funds from student loans and other sources at

these times. This may cause increased stress during exam periods and at the end of each semester.

Overall, the survey results show students from vulnerable populations – international students, Black and Aboriginal students, and students supporting dependants – being forced into food insecurity by financial pressure. Although the data is not conclusive, high and rising tuition fees may be a major cause of student food insecurity. Finally, DSUFB users, as represented by participants in our survey, are likely only a fraction of students living with food insecurity.

## Recommendations and Conclusion

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Based off our discussion and data displayed above, we have developed several key questions and recommendations for the DSU regarding the DSUFB.

Hunger amongst students is a particularly destabilizing event. Not only is it stressful and unhealthy but it also affects school performance. The fact that hunger is so hidden within society lends urgency to the fact that more must be done to develop solutions. Dalhousie and the DSU should highlight this issue and collaborate with professors, staff, students and administrators to find an answer.

DSUFB users frequently reported learning of the service by word of mouth. The authors of this report recommend better and more visible advertising of the DSUFB. This will make the DSUFB accessible to students experiencing food insecurity that do not know of the service.

The DSUFB shall continue research. Seen in Appendix D, the DSUFB currently collects data on visit frequency. However, a more detailed longitudinal study would not only add validity to the results of this study, but also reveal the effects of changing tuition fees, and allow a finer-grain breakdown of user populations. For example, another issue shown within the data was that of students with dependents. As of now, DSUFB policy allows users with dependents to collect more food. Should the DSUFB administration collect data on these users, they would be more able to target these users for additional aid. This data would also enable the Dalhousie Student Union to combat the image of the average food bank user as a single young student.

The background literature cited in this report suggests that economic pressure is one of the roots of food insecurity. This study suggests that DSUFB are low-income and face high tuition and rent costs. The recently released Memorandum of Understanding (MOU) between the Nova Scotia government and post-secondary institutions removed the cap on tuition fee increases for the next year. The MOU also deregulates out-of-province and International student fees for the next five years. This paves the way for a potential spike in tuition and fees that could very well make education inaccessible to students and increases the burden for those who decide to attend university. As shown by this study, students from marginalized groups, students with



dependents and International students already face higher levels of insecurity. Therefore, the province should reinstate a tuition cap. The province should also work with the federal government to change student visas so International students can work while attending school in Nova Scotia.

Dalhousie should voluntarily cap tuition to ease the burden on students. As an alternative or additionally, both the University and the Province should consider making needs-based grants more easily accessible and numerous. This could help alleviate this burden and ensure students are able to attend university and stay here without the threat of bare cupboards.

In all, food security amongst university students at Dalhousie is a broad and complicated issue; an issue not easy quantified, studied or solved. Food insecurity is part in parcel of larger societal issues that must be addressed and remediated in order to afford every citizen the right to nutritious and affordable food.

## References

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- Bloom, R. (2013, January 18). Dal's hidden food bank. DalGazette.com. Retrieved from: <http://dalgazette.com/news/campus/dals-hidden-food-bank/>
- Booth, S., & Whelan, J. (2014). Hungry for change: The food banking industry in Australia. *British Food Journal*, 116(9), 1392-1404. Doi: 10.1108/BFJ-01-2014-0037
- Carlisle, S., & Hanlon, P. (2014). Connecting food, well-being and environmental sustainability: Towards an integrative public health nutrition. *Critical Public Health*, 24(4), 405-417. doi:10.1080/09581596.2013.877580
- CBC News, "Nova Scotia budget: Winners and losers," *CBC.ca*, 9 April 2015
- Dowler, E. A., & O'Connor, D. (2012). Rights-based approaches to addressing food poverty and food insecurity in Ireland and UK. *Social Science & Medicine*, 74(1), 44-51. doi:10.1016/j.socscimed.2011.08.036
- Feed Nova Scotia (2014). *Annual Report 2014*. Retrieved from [http://www.feednovascotia.ca/aboutus\\_publications.html](http://www.feednovascotia.ca/aboutus_publications.html)
- Food Banks Canada. (2015). *Hunger Count 2015 Survey Guide*. Retrieved from: <http://www.foodbankscanada.ca/hungercountsurvey>
- Galbraith, K., (2004). Canadian Students Increasingly Rely on Food Banks. *The Chronicle of Higher Education*, 50(18).
- Guenther, Patricia M., Kellie O. Casavale, Jill Reedy, Sharon I. Kirkpatrick, Hazel A.B. Hiza, Kevin J. Kuczynski, Lisa L. Kahle, and Susan M. Krebs-Smith. (2013). "Update of the Healthy Eating Index: HEI-2010" *Journal of the Academy of Nutrition and Dietetics*. 2013 Feb 13. doi: 10.1016/j.jand.2012.12.016. (Epub ahead of print)
- Hamelin AM, Mercier C, Bedard A: (2010) "Discrepancies in households and other stakeholder's viewpoints on the food security experience: a gap to address." *Health Educ Res.* 25:401-412
- Health Canada. (2012, July 25). The Household Food Security Survey Module. Retrieved February 23, 2015, from <http://www.hc-sc.gc.ca/fn-an/surveill/nutrition/commun/insecurit/hfssm-mesam-eng.php>
- Jamieson, N. (2014, February 7). DSU Food Bank hopes to find funding in levy. *DalGazette.com*. Retrieved from: <http://dalgazette.com/news/campus/dsu-food-bankhopes-to-find-funding-in-levy/>
- Kirkpatrick, S., Tarasuk, V. (2008). Food Insecurity Is Associated with Nutrient Inadequacies among Canadian Adults and Adolescents. *Journal of Nutrition*, 138(3), 604-612.

- Lambie-Mumford, H., & Dowler, E. (2014). Rising use of "food aid" in the United Kingdom. *British Food Journal*, 116(9), 1418-1425. doi:10.1108/BFJ-06-2014-0207
- Lammers, Peter J., Sarah L. Carlson, Gretchen A. Zdorkowski, Mark S. Honeyman. (2009). "Reducing food insecurity in developing countries through meat production: the potential of the guinea pig (*Cavia porcellus*) *Renewable Agriculture and Food Systems*: 24(2); 155–162
- Leung, C.W., Epel, E.S., Ritchie, L.D., Crawford, P.B., & Laraia, B.A. (2014). Food Insecurity is Inversely Associated with Diet Quality of Lower-Income Adults. *Journal of the Academy of Nutrition and Dietetics*, 114(12), 1943-U329. Doi:10.1016/j.jand.2014.06.353
- Lightbody, Teresa Katherine. (Jun., 2007) "Child Poverty and the Canadian Welfare State: From Entitlement to Charity by Shereen Ismael." Review. *Canadian Public Policy / Analyse de Politiques* Vol. 33, No. 2, pp. 275-276. Stable URL: <http://www.jstor.org/stable/30032530>
- National Center of Chronic Disease Prevention and Health Promotion. Division of Population Health. (05/2014). "Health and Academic Achievement." Centers for Disease Control and Prevention.
- O'Neill, Tim. (2010). "Report on the University System in Nova Scotia.[https://www.novascotia.ca/lae/HigherEducation/documents/Report\\_on\\_the\\_Higher\\_Education\\_System\\_in\\_Nova\\_Scotia.pdf](https://www.novascotia.ca/lae/HigherEducation/documents/Report_on_the_Higher_Education_System_in_Nova_Scotia.pdf)
- Tarasuk, V., Dachner, N., & Loopstra, R. Food banks, welfare, and food insecurity in Canada. *British Food Journal*, 116(9), 1405-1417. Doi: 10.1108/BFJ-02-2014-0077
- Tarasuk, V., Dancher, N., Hamelin, A.M., Ostry, A., Williams, P., Bosckei, E. ... Raine, K. (2014). A survey of food bank operations in five Canadian cities. *BMC Public Health*, 14. Doi: 10.1186/1471-2458-14-1234
- Wright, T. (2015) *Developing Methods Part 2 and 3*. [Powerpoint Slides]. Retrieved from [https://dalhousie.blackboard.com/webapps/blackboard/content/listContent.jsp?course\\_id=\\_19591\\_1&content\\_id=\\_800709\\_1](https://dalhousie.blackboard.com/webapps/blackboard/content/listContent.jsp?course_id=_19591_1&content_id=_800709_1)
- Wright, T. (2015) *Research Methods Part 1*. [Powerpoint Slides]. Retrieved from [https://dalhousie.blackboard.com/webapps/blackboard/content/listContent.jsp?course\\_id=\\_19591\\_1&content\\_id=\\_800709\\_1](https://dalhousie.blackboard.com/webapps/blackboard/content/listContent.jsp?course_id=_19591_1&content_id=_800709_1)

## Appendices

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## Appendix A: Budget & Project Schedule

For the scope of the project, the costs associated with implementation of result acquisition were limited. Our preliminary budget considered costs associated with a lock-box rental for the storage of surveys, chocolates to hand out with each survey as incentives, and well as pens to for the target market to answer the survey.

During the beginning of our sampling period, it was recognized that a budget was unnecessary altogether. A lock box was acquired by the College of Sustainability as a loan, and collectively came up with pens to use amongst each group member. Isaac, the DSU member services coordinator, requested that the food incentives be eliminated from the surveying plan. In addition, the college of environmental Studies supplied printing services for survey printing. As a result, research was concluded with no cost.



## Appendix B: Sampling Survey

### **Barriers to Food Security among Dalhousie Students**

Thank you for taking part in our survey to identify the barriers to food security among Dalhousie Students. We are trying to determine the causes of food insecurity among the Dalhousie student population. When you are finished with the survey please return it to the person who issued it to you. We ask that you do not provide your name to ensure your anonymity. Thank you for taking the time to help us determine how to make Dalhousie a more food-secure campus. If you would like to see the results of our study, a copy will be made available at the Dalhousie Food Bank in late March. If you feel uncomfortable with the questionnaire you may leave at any time.

1. What is your age? \_\_\_\_\_
2. What is your sex?
  - Male
  - Female
  - Intersex
3. What Faculty do you belong to at Dalhousie? \_\_\_\_\_
4. Where were you born?
  - Nova Scotia
  - Other province or territory in Canada
  - Other country
5. What is your student status?
  - Full-time
  - Part-time
  - Other: \_\_\_\_\_
6. What is your level of study at Dalhousie?
  - Continuing Studies
  - Diploma
  - Undergraduate
  - Masters
  - Ph.D.
  - Other: \_\_\_\_\_
7. Since September 2014, how often have you used the Dalhousie Food Bank?
  - Weekly
  - Bi-Weekly (every two weeks)
  - Monthly
  - Bi-monthly (every two months)
  - Once in a while

Other: \_\_\_\_\_

8. Since September 2014, have you used any other food aid? Food aid, being any food you receive that does not have a financial cost to you. For example: hot meals, loaded ladle, Canadian Food Bank, etc.

Yes

No

If you answered 'Yes', what other food aid do you use? \_\_\_\_\_

9. For how long have you been using any kind of food aid including the Dalhousie Food Bank?

Just in the past year

2 years

3 years

4 years

5 years

6 years

Greater than 6 years

10. If you have been using the food bank for more than two years, have you noticed a significant change in the quality over the past two years?

Yes

No

Don't Know

Not Applicable

Please Explain: \_\_\_\_\_

11. How did you hear about the food bank?

Internet

Word of mouth

Physical advertisements like posters

Dalhousie orientation

Other: \_\_\_\_\_

12. What category best describes your annual income bracket?

Under 5000

5000 – 9999

10000 – 14999

15000 – 19999

20000 – 24999

25000 – 34999

35000+

13. What percentage of the following do you use to pay for your school fees? Please approximate the percentage of the total you use to pay school fees for each category.

- Student loans \_\_\_\_\_%
- Bank loans \_\_\_\_\_%
- Grant \_\_\_\_\_%
- Scholarship \_\_\_\_\_%
- Family Assistance \_\_\_\_\_%
- Work \_\_\_\_\_%
- Other \_\_\_\_\_%

14. Approximately, how much money do you spend on food a month? \_\_\_\_\_

15. Please rank the following in terms of your spending priorities. With '1' indicating the category is your top priority, '2' indicating the second most important category, and so on.

- Tuition\_\_\_\_
- Rent\_\_\_\_
- Food\_\_\_\_
- Leisure\_\_\_\_
- Child care\_\_\_\_
- Other:\_\_\_\_\_

16. How many people live in your household? \_\_\_\_\_

17. How many people in your household are dependents? A dependent meaning, they are reliant on you for their basic needs. \_\_\_\_\_

18. What do you feel could be done to improve the Dalhousie Food Bank?

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## Appendix C: Ethics Forms

**ENVIRONMENTAL PROGRAMMES**  
**FACULTY OF SCIENCE**  
**DALHOUSIE UNIVERSITY**

**APPLICATION FOR ETHICS REVIEW OF RESEARCH INVOLVING HUMAN PARTICIPANTS**  
**UNDERGRADUATE THESES AND IN NON-THESIS COURSE PROJECTS**

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**GENERAL INFORMATION**

**1. Title of Project:** Food Security among Dalhousie Students

**2. Faculty Supervisor(s):**

Tarah Wright **Department:** Environmental Science **E-mail:** Tarah.Wright@dal.ca **Phone:** 902-494-3683

**3. Student Investigator(s)**

Jake Abbott **Department:** Biology and Sustainability **E-mail:** [jk331460@dal.ca](mailto:jk331460@dal.ca) **Cell number:** 902-818-7846

Li Lei **Department:** Environmental Science **E-mail:** [lz459747@dal.ca](mailto:lz459747@dal.ca) **Local phone number:** 902-489-8882

Ben Abbott **Department:** Planning and Sustainability **Email:** [bn936815@dal.ca](mailto:bn936815@dal.ca) **Local phone number:** (902) 478 9375

Brianna Aird **Department:** History of Science and Technology **Email:** [Brianna.Aird@dal.ca](mailto:Brianna.Aird@dal.ca) **Cell number:** 613-408-6286

Desiree Lethbridge **Department:** Sustainability and International Development **Email:** [ds537676@dal.ca](mailto:ds537676@dal.ca) **cell number:** 902 266 7930

Charlie Weyman **Department:** International Development and Sustainability **Email:** [ch886201@dal.ca](mailto:ch886201@dal.ca) **cell number:** 902-489-1318

**4. Level of Project:**

**Non-thesis Course Project**  Undergraduate  Graduate Specify course and number:  
3502 ENVS/SUST Campus as a Living Lab

5. **A. Indicate the anticipated commencement date for this project:** March, 10th, 2014
- B. Indicate the anticipated completion date for this project:** March, 31st. 2014

## SUMMARY OF PROPOSED RESEARCH

### 1. Purpose and Rationale for Proposed Research

*Briefly describe the purpose (objectives) and rationale of the proposed project and include any hypothesis (es)/research questions to be investigated.*

This research project will investigate the experiences of Dalhousie food bank users with food insecurity. We are looking to understand what factors necessitate students' use of the food bank and gain a preliminary understanding of linkages between severe food insecurity and other factors like socio-economic class, school costs and fees, and membership in a marginalized group. Food security is a significant and growing issue in wealthy nations. Food insecurity is socially unsustainable and has links to other environmental and sustainability issues. Therefore, research investigating hunger and food aid within our own community is timely and crucial to moving towards a sustainable future.

### 2. Methodology/Procedures

**a. Which of the following procedures will be used? Provide a copy of all materials to be used in this study.**

- Survey(s) or questionnaire(s) (mail-back)
- Survey(s) or questionnaire(s) (in person)
- Computer-administered task(s) or survey(s)]
- Interview(s) (in person)
- Interview(s) (by telephone)
- Focus group(s)
- Audio taping
- Videotaping
- Analysis of secondary data (no involvement with human participants)
- Unobtrusive observations
- Other, specify \_\_\_\_\_

**b. Provide a brief, sequential description of the procedures to be used in this study. For studies involving multiple procedures or sessions, the use of a flow chart is recommended.**

Our main procedure is an 18-question anonymous survey on food insecurity, which we will administer to Dalhousie Food Bank Users. To minimize intrusiveness, we will ask food bank volunteers to request that food bank users fill out the survey. Participants will be asked yearly income. We will also provide mini

chocolate bars as an incentive. Additionally, we will work with the Food Bank Coordinator, Holly MacDonald, to analyze data collected by the food bank over the past year.

### 3. Participants Involved in the Study

#### A. Indicate who will be recruited as potential participants in this study.

Dalhousie Participants:  Undergraduate students  
 Graduate students  
 Faculty and/or staff

Non-Dal Participants:  Children  
 Adolescents  
 Adults  
 Seniors  
 Persons in Institutional Settings (e.g. Nursing Homes, Correctional Facilities)

Other (specify) \_\_\_\_\_

#### b. Describe the potential participants in this study including group affiliation, gender, age range and any other special characteristics. If only one gender is to be recruited, provide a justification for this.

Potential survey participants who use the Dalhousie food bank. Potential participants for the survey are Dalhousie Students of all genders.

#### c. How many participants are expected to be involved in this study?

100-200

### 4. Recruitment Process and Study Location

#### a. From what source(s) will the potential participants be recruited?

Dalhousie University undergraduate and/or graduate classes  
 Other Dalhousie sources (specify) \_\_Specific students who use food bank\_\_\_\_\_  
 Local School Boards  
 Halifax Community  
 Agencies  
 Businesses, Industries, Professions  
 Health care settings, nursing homes, correctional facilities, etc.  
 Other, specify (e.g. mailing lists) \_\_\_\_\_

#### b. Identify who will recruit potential participants and describe the recruitment process.

Provide a copy of any materials to be used for recruitment (e.g. posters(s), flyers, advertisement(s), letter(s), telephone and other verbal scripts).

Surveys will be conducted in person, students who visit food bank will be offered a food incentive to fill out a survey. Interview participants (staffs and volunteers) will be contacted by e-mail in order to set up a meeting time.

## 5. Compensation of Participants

**Will participants receive compensation (financial or otherwise) for participation?**

Yes  No

If **yes**, provide details:

Students who visit food bank will be offered a food incentive (ex. chocolate bar) to fill out a survey.

## 6. Feedback to Participants

**Briefly describe the plans for provision of feedback and attach a copy of the feedback letter to be used.** Wherever possible, written feedback should be provided to study participants including a statement of appreciation, details about the purpose and predictions of the study, contact information for the researchers, and the ethics review and clearance statement.

Note: When available, a copy of an executive summary of the study outcomes also should be provided to participants.

The survey questionnaires provide an option to participants to fill out their e-mail to receive the research findings.

### POTENTIAL BENEFITS FROM THE STUDY

1. Identify and describe any known or anticipated direct benefits to the participants from their involvement in the project.

Participants will receive food as an incentive for completing the survey. This study may also increase food safety and food quality in food bank in future which participants also can benefit from increasing food quality.

2. Identify and describe any known or anticipated benefits to society from this study. This study can help Dalhousie food bank to serving students better. In addition, this study can be a reference source for further studies for instance economics and social studies.

### POTENTIAL RISKS TO PARTICIPANTS FROM THE STUDY

1. For each procedure used in this study, provide a description of any known or anticipated risks/stressors to the participants. Consider physiological, psychological, emotional, social, economic, legal, etc. risks/stressors

No known or anticipated risks  
Explain why no risks are anticipated:

Minimal risk  
Description of risks:  
The surveys will be anonymous but will ask for personal information and involve some sensitive topics.

Greater than minimal risk  
Description of risks:

**2. Describe the procedures or safeguards in place to protect the physical and psychological health of the participants in light of the risks/stresses identified in Question 1.**

Personal information will be asked from participants involved in the study. Participants will fill out the survey and drop in a box. Surveys will remain anonymous to protect the privacy of participants. Participants also could decide to stop at any time they want.

**INFORMED CONSENT PROCESS**

Refer to: <http://pre.ethics.gc.ca/english/policystatement/section2.cfm>

**1. What process will be used to inform the potential participants about the study details and to obtain their consent for participation?**

- Information letter with written consent form; provide a copy
- Information letter with verbal consent; provide a copy
- Information/cover letter; provide a copy

Other (specify) \_\_\_\_\_

**2. If written consent cannot be obtained from the potential participants, provide a justification.**

There will be an introduction in the questionnaire survey. There will be a conversation to introduce this survey.

## ANONYMITY OF PARTICIPANTS AND CONFIDENTIALITY OF DATA

1. Explain the procedures to be used to ensure anonymity of participants and confidentiality of data both during the research and in the release of the findings.

To ensure anonymity of participants, no name will be collected during the surveying process. Participants will fill out the surveys and drop in a box instead of face to researchers. In the release of the findings will not contain any name and individual's information.

2. Describe the procedures for securing written records, questionnaires, video/audio tapes and electronic data, etc.

The researchers in the group will collect written information from box. The information collected from surveys will not be distributed outside of the group.

3. Indicate how long the data will be securely stored, the storage location, and the method to be used for final disposition of the data.

Paper Records

Confidential shredding after \_April, 17th, 2015\_\_\_\_\_ years

Data will be retained indefinitely in a secure location

Data will be retained until completion of specific course.

Audio/Video Recordings

Erasing of audio/video tapes after \_\_\_\_\_ years

Data will be retained indefinitely in a secure location

Data will be retained until completion of specific course.

Electronic Data

Erasing of electronic data after \_\_\_\_\_ years

Data will be retained indefinitely in a secure location

Data will be retained until completion of specific course.

Other

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(Provide details on type, retention period and final disposition, if applicable)

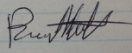
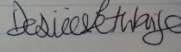

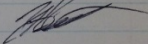
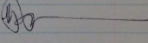
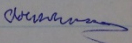
**Specify storage location:** Written information will be stored in a lock box at one of the group member's home.

## ATTACHMENTS

Please **check** below all appendices that are attached as part of your application package:

- Recruitment Materials:** A copy of any poster(s), flyer(s), advertisement(s), letter(s), telephone or other verbal script(s) used to recruit/gain access to participants.
- Information **Letter and Consent Form(s)**. Used in studies involving interaction with participants (e.g. interviews, testing, etc.)
- Information/Cover Letter(s)**. Used in studies involving surveys or questionnaires.
- Parent Information Letter and Permission Form for studies involving minors.
- Materials:** A copy of all survey(s), questionnaire(s), interview questions, interview themes/sample questions for open-ended interviews, focus group questions, or any standardized tests used to collect data.

## SIGNATURES OF RESEARCHERS

Name	Date	Signature
Ben Abbott	25/02/2015	
Desiree Letnbridge	25/02/2015	
Li Lei	25/02/2015	
JAKE ABBOTT	25/02/2015	
Branna Aird	25/02/2015	
Charlie Weyman	25/02/2015	

### FOR ENVIRONMENTAL PROGRAMMES USE ONLY:

Ethics proposal been checked for eligibility according to the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans

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Signature \_\_\_\_\_ Date \_\_\_\_\_

## **Barriers to Food Security among Dalhousie Students**

Thank you for taking part in our survey to identify the barriers to food security among Dalhousie Students. We are trying to determine the causes of food insecurity among the Dalhousie student population. When you are finished with the survey please return it to the person who issued it to you. We ask that you do not provide your name to ensure your anonymity. Thank you for taking the time to help us determine how to make Dalhousie a more food-secure campus. If you would like to see the results of our study, a copy will be made available at the Dalhousie Food Bank in late March. If you feel uncomfortable with the questionnaire you may leave at any time.

1. What is your age? \_\_\_\_\_
2. What is your sex?
  - Male
  - Female
  - Intersex
3. What Faculty do you belong to at Dalhousie? \_\_\_\_\_
4. Where were you born?
  - Nova Scotia
  - Other province or territory in Canada
  - Other country
5. What is your student status?
  - Full-time
  - Part-time
  - Other: \_\_\_\_\_
6. What is your level of study at Dalhousie?
  - Continuing Studies
  - Diploma
  - Undergraduate
  - Masters
  - Ph.D.
  - Other: \_\_\_\_\_



7. Since September 2014, how often have you used the Dalhousie Food Bank?
- Weekly
  - Bi-Weekly (every two weeks)
  - Monthly
  - Bi-monthly (every two months)
  - Once in a while
  - Other: \_\_\_\_\_
8. Since September 2014, have you used any other food aid? Food aid, being any food you receive that does not have a financial cost to you. For example: hot meals, loaded ladle, Canadian Food Bank, etc.
- Yes
  - No
- If you answered 'Yes', what other food aid do you use? \_\_\_\_\_
9. For how long have you been using any kind of food aid including the Dalhousie Food Bank?
- Just in the past year
  - 2 years
  - 3 years
  - 4 years
  - 5 years
  - 6 years
  - Greater than 6 years
10. If you have been using the food bank for more than two years, have you noticed a significant change in the quality over the past two years?
- Yes
  - No
  - Don't Know
  - Not Applicable
- Please Explain: \_\_\_\_\_
11. How did you hear about the food bank?
- Internet
  - Word of mouth
  - Physical advertisements like posters
  - Dalhousie orientation
  - Other: \_\_\_\_\_
12. What category best describes your annual income bracket?
- Under 5000
  - 5000 – 9999

- 10000 – 14999
- 15000 – 19999
- 20000 – 24999
- 25000 – 34999
- 35000+

13. What percentage of the following do you use to pay for your school fees? Please approximate the percentage of the total you use to pay school fees for each category.

- Student loans \_\_\_\_\_%
- Bank loans \_\_\_\_\_%
- Grant \_\_\_\_\_%
- Scholarship \_\_\_\_\_%
- Family Assistance \_\_\_\_\_%
- Work \_\_\_\_\_%
- Other \_\_\_\_\_%

14. Approximately, how much money do you spend on food a month? \_\_\_\_\_

15. Please rank the following in terms of your spending priorities. With '1' indicating the category is your top priority, '2' indicating the second most important category, and so on.

- Tuition \_\_\_\_\_
- Rent \_\_\_\_\_
- Food \_\_\_\_\_
- Leisure \_\_\_\_\_
- Child care \_\_\_\_\_
- Other: \_\_\_\_\_

16. How many people live in your household? \_\_\_\_\_

17. How many people in your household are dependents? A dependent meaning, they are reliant on you for their basic needs. \_\_\_\_\_

18. What do you feel could be done to improve the Dalhousie Food Bank?