

**Assessing 'Affordability' of Food at the University of British Columbia: Planning for the
Future of Food Security**

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AGSC 450

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**Assessing 'Affordability' of Food at the
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Abstract

The economic aspect of food security at The University of British Columbia was assessed by investigating perceived overall affordability of campus food items. Questionnaires regarding campus food establishments and participants' purchasing habits were distributed randomly at high-traffic locations on campus. Seventy-eight percent of respondents rated the overall price of food at UBC as "moderately expensive" or "expensive" and 80% purchased food five times per week or less, leading us to conclude that overall food pricing is predominantly inappropriate for the UBC community. Short-term, intermediate, and long-term practical recommendations are proposed to facilitate achievement of UBC food security within a dynamic and evolving community.

Introduction

This paper addresses the 'affordability' of food on the University of British Columbia (UBC) campus in the context of 'food security'. A food system may be defined as 'food secure' when "all people at all times have physical and economic access to sufficient, safe, and nutritious food that meet their dietary needs and food preferences for an active and healthy life"¹. Moreover, food security involves four main components: availability (amount and distribution of food), accessibility (location and ease of obtaining food), affordability (food prices within the means of a community), and appropriateness (food that meets all needs of a community)¹. For the UBC community, 'food security', particularly the 'affordability' of food, is an increasingly important issue. We propose that the *overall price* of food on campus has a large impact on the choice and procurement of food. This paper will first present our underlying value assumptions in relation to food security at UBC and will review its history of food. [REDACTED] The paper will then present our research (methodology, results, analysis, and limitations) concerning 'affordability' of food on campus. Finally, the paper will provide recommendations for the UBC food system based on the results of our research.

[REDACTED]

Our research group is composed of members with different academic backgrounds, primarily nutrition and economics, and this composition inherently influences our perspective on 'food security' at UBC. Regardless, we believe that human needs for nutritious and affordable food must be placed at the forefront of efforts to establish a 'food secure' system. However, the

issue of food is not solely confined to economic considerations. We also recognize that it is important to consider the ‘sustainability’ of the food system, particularly its long-term capacity to maintain the integrity of the environment while ensuring that it meets the cultural and social needs of the community. Consequently, ‘food security’ involves a diverse range of factors (economic, nutritional, environmental, social) and thus, our views entail a paradigm of weak anthropocentrism.

Food Security: Our Economic Focus

Our group chose to focus on one aspect of food security affecting the UBC community. We believe that economics (i.e. ‘affordability’ of food at UBC) is of such importance that it contributes to food ‘insecurity’, since the price of food may create a barrier to obtaining food if an individual cannot afford it. ‘Expensive’, and thus, unaffordable food items may be the primary barrier to food security for the UBC community, particularly because students comprise 72% of the total population⁶. Due to the limited capacity for students to work and meet their academic commitments, most have a modest disposable-income, resulting in a limited budget to spend on food. [REDACTED]

Since there is an abundance of food available at UBC, it is apparent that the price of food will be the determining factor in whether the UBC community will access that food. [REDACTED]

[REDACTED] [REDACTED]

Currently, the food services available include: Alma Mater Society, such as Pendulum and Gallery; UBC Food Service, such as 99 Chairs and Agora; and the Village, such as McDonalds and Country Time. Next, we consider the history of food security on campus and assess how the current food services meet the economic capacity of the UBC community.

History of ‘Affordability’ of Food at UBC

To further understand the ‘affordability’ of food for the UBC community, our group examined research conducted over the past six years regarding food services available at UBC and food-related needs of the community. [REDACTED] The results of three studies suggest that the overall price of food is perceived as ‘expensive’, especially among the student population^{3,4,5}. This information further supported our group hypothesis that food security on campus is largely influenced by ‘food price’. In order to test these findings and to make them more current, we conducted a campus-wide survey to assess the ‘affordability’ of food on the UBC campus.

Research on the Affordability of UBC Food for the UBC Community

Research Purpose and Methodology

Good

The purpose of our research was to objectively evaluate the ‘affordability’ of food at UBC and to determine how the overall perception of food price influences the purchasing behavior of the UBC community. The research method involved developing and distributing a nine-question survey (see Appendix 1). [REDACTED] These questionnaires were distributed to individuals at random during various times of the weekday in high-traffic locations on campus, including Buchanan Building, McLeod Electrical Engineering Building, Family and Nutritional Sciences Building, Forestry Science Center, Gage Residence, Instructional Resource Centre, MacMillan Building, and the Student Union Building. The goal of our research was to survey at least 110 or 0.2% of the total UBC population (50,800). [REDACTED]

The questionnaire was designed to investigate three aspects of food security in the UBC community: information on the respondent (position, age range, gender); food purchasing habits (purchasing frequency, specific food service, food budget); food security-related attitudes

(primary reason for purchasing, perception of ‘overall’ price of food on campus). We also included a question regarding the willingness of the UBC community to incur increased prices for food produced in an ‘environmentally friendly’ manner (e.g. organic).

The design of the questionnaire provided indicators of ‘sustainability’, particularly to determine whether the price of food currently meets the economic, social, and environmental needs of the community. The *economic indicators* included both the ‘food budget range’ and the ‘perceived’ overall price of food on campus (“cheap, reasonable, moderately expensive, expensive”). These would help to determine whether there were financial limitations for food purchasing and whether food prices are appropriate for the community. The *social indicator* of sustainability of the food system was the question regarding the ‘primary reason’ for purchasing food (“price, convenience, personal preference, nutritional value”) at a particular food service. This provides insight on what social factors influence food choices. Our *ecological indicator* was anchored to the question regarding the ‘willingness’ of individuals to incur increased food prices for ‘environmentally friendly’ food products. This provided insight on whether health of the environment influences food choices by the community, regardless of the potential economic cost to the community.

Summary of Major Research Results (refer to Appendix 2 and 3, Figures 1- 4)

Most (89%) of the 114 people surveyed were UBC students, while the remainder was faculty, staff, or alumni. Correspondingly, most of the respondents (79%) were between the ages of 18 and 25. The majority of respondents live off campus (68%) and one third (32%) live in campus residence. More than two thirds of our respondents are female (71%). Most individuals (79.5%) purchase food on campus less than five times per week. The majority (45%) chose ‘convenience’ as their primary reason for selecting a food establishment on campus, whereas price was a primary factor in 14% of the respondents. Our data also shows that personal

preference explains 31% of respondents' reason for food selection. However, 55% of the respondents 'perceive' the overall price of food at UBC to be 'moderately expensive', whereas 23 % consider it to be 'expensive'. Collectively, this indicates reservation about the cost of food on campus. [REDACTED]

Research Limitations

Due to time and financial constraints, we were unable to conduct a more representative survey of the UBC community. We recognize that the research results are limited to a small percent of the community (0.2%), and that this survey is based primarily on female students aged 18 to 25. [REDACTED] Thus, these results may not accurately reflect the issue of 'affordability' of food for all members of the UBC community. The limitations of time also constrained our ability to research other related factors influencing the *overall* food security at UBC, such as food accessibility, availability, and appropriateness. Thus, further research is needed in order to fully address the complexity of food security at UBC and to document the perception of the UBC community.

Discussion of Results (refer to Appendix 2-3, Figures 2-3)

We interpreted our results to mean that the 'perceived' *overall* food prices on campus are 'moderately expensive' to 'expensive', and provided this, most individuals (45%) make their food choices based on 'convenience'. The predominately low frequency of food purchasing on campus strongly reinforces the interpretation that 'price' is a significant barrier [REDACTED]. For example, approximately 80% of respondents indicate that they purchase food less than five times per week (Appendix 2, Figure1). Conversely only 20% of respondents purchase food more than six times per week. This is important because it may have economic implications for food providers, which are not offering sufficient 'price' incentives for

the UBC community. Despite limitations to our research (above), the results of the data show that ‘affordability’ of food is an important issue influencing food security in the UBC community and we conclude that *overall food pricing* is inappropriate for the majority of the community. Convenience is also a key factor because students, faculty, and staff have schedules that require time efficiency. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Recommendations for the UBC Food System

Based on the results of our research, it is important to recommend changes in the UBC food system that focus on improved ‘affordability’ of all food on campus, particularly the available of alternative, lower-priced food. Introducing new policies to help increase the ‘affordability’ of food at all food services would be a key component to facilitating such change, as well as directly involving the UBC community in the food system. [REDACTED]

[REDACTED]

[REDACTED] We recommend that these policies be introduced gradually, beginning with short-term (immediate, ongoing), intermediate (month to years), and long-term (several years hence) goals. We address each of these categories below.

Short-term Recommendations

We propose that immediate and ongoing changes to increase the affordability of the food available at UBC could be met by expanding existing food price discounts currently offered by only a few food services, such as Pendulum or the Express. This could be achieved by introducing a policy that requires all food services at UBC to offer three main price discounts. These include discounts for patrons that provide their own food packaging (e.g. reusable mugs,

plates etc.); frequent-buyer discounts (e.g. stamp cards that provide a free meal after a certain number of purchases); and volume discounts (e.g. a reduced cost when several people in one group buy the same item [REDACTED]).

[REDACTED]. Not only would these discounts help to increase the affordability of food but they would also encourage patronage [REDACTED] while helping consumers become more environmentally conscious by decreasing consumer waste and minimizing negative impacts on the environment. [REDACTED]

[REDACTED] These discounts may also enhance a sense of community, for example, by encouraging groups to enjoy a meal together for a reduced price.

Intermediate Recommendations

In the course of these short-term strategies, development of intermediate goals to provide more ‘affordable’ food could involve “capacity building”². This would involve the expansion of independent, student and faculty-centered food production system that could produce lower-priced food across campus. Currently, there are small-scale, student-run food services, such as “Wednesday Lunches” offered by students in the Faculty of Food, Nutrition and Health Sciences. [REDACTED]

[REDACTED] Thus, we recommend that these independent food services be increasingly diversified such that they become part of *all* faculties across campus. These lunches would be managed, produced, and sold by the students with the intention of providing nutritious and affordable meals for fellow students. [REDACTED]

[REDACTED] The profits of the lunches would be reinvested in the faculty for the benefit of the students who have volunteered in the program. [REDACTED]

Long-term Recommendations

Building on the small-scale, student and faculty-run food services, over several years the UBC community could develop a community-run grocery store as an alternative to privately operated food services. Such a store at UBC may seem unnecessary, however, the geographic isolation of the campus and the limited selection and small size of campus grocery stores warrants an alternative source of food. The store would specifically hire members of the community for management and maintenance of the establishment, and offer a yearly membership to all UBC community members that would give a percent discount (15%) on all food purchased. This would provide a source of income for community members and help to reduce food prices. The store could also focus on offering a variety of locally grown produce from the UBC farm and supplemented by farmers in the Lower Mainland, thereby linking the UBC community with the surrounding community in a constructive manner. By increasing the availability of unprocessed food, the grocery store could provide a variety of inexpensive foods, as added costs, such as those entailed by transportation or production fees, would be minimized. The food selection available at the grocery store could also reflect the diverse multicultural needs of the UBC community. This would be consistent with the strong survey sample response of personal preference in food selection (Figure 2).

Recommendations for Future Research

Although our recommendations have been specific to increasing the affordability of food, we recognize that further research is needed to address the other aspects of food security at UBC, as well as the long-term ‘sustainability’ of the food system. Further research should:

- ❖ Assess how the accessibility, appropriateness and availability of food on campus impacts food security
- ❖ Determine how moving toward ‘food security’ will impact the environment, as well as the social and economic aspects of the UBC community and whether creating a ‘food secure’ system is sustainable in the long-term

- ❖ Determine how to meet the changing needs of the UBC community over time, especially considering that the definitions of ‘food security’ and ‘sustainability’ of the food system will also change

Conclusion

It is clear that there are many factors that influence the overall ‘food security’ among the UBC community. Our questionnaire identifies that ‘affordability’ is a major concern and that this issue needs to be further addressed and alternative solutions sought. [REDACTED]

[REDACTED] We recognize that moving toward a more ‘food secure’ (affordable, appropriate, accessible, available) food system on campus will also require us to examine social and environmental impacts over the long-term. Perhaps what is most important is that we realize that both ‘food security’ and ‘sustainability’ are not static issues and that they require frequent re-assessment. These definitions will invariably change over time in relation to the changing needs of the community and the environment. Therefore, we must remain flexible in light of future recommendations and remain vigilant to the environmental, social, and economic impacts of these changes. Our current questionnaire provides a stepping-stone in this direction for improved food security in the UBC community.

[REDACTED]

Appendix 1

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Land Food and Community Survey

1) **Are you a UBC Student?** Yes /No
 If no, please indicate Faculty / Staff _____ Other _____

2) **Do you live on Campus?** Yes / No

3) **How many *times per week* do you purchase food on campus?** (Any kind or quantity)
 0-2 times/week ____ 3-5 times/week ____ 6-8 times/week ____ 8+ times/week ____

4) **Which of the following do you most often visit?**
 (Please indicate by checking your **primary** reason for eating there.)

THE VILLAGE

	Price	Convenience	Nutritional Value	Personal Preference
McDonald's				
Second Cup				
Country Time				
One More Sushi				
International Food Fair				
Benny's Bagels				
Village Restaurant				
Pita Pit				
Playaz Pizza				

UBC FOOD SERVICE OUTLETS

	Price	Convenience	Nutritional Value	Personal Preference
The Barn				
Yum Yum's				
99 Chairs				
Steamies				
Agora				
Arts 200				
Edibles				



AMS FOOD SERVICE

	Price	Convenience	Nutritional Value	Personal Preference
Blue Chip				
Pit Pub				
Pendulum				
Gallery				
The Moon				
Snack Attack				
Pie R ²				

OTHER: _____

REASON: _____

5) Do you have a food budget or allowance for food purchased on campus *per day*?

Yes / No

If yes, how much? \$0.00 - \$2.99 _____ \$3.00 - \$5.99 _____ \$6.00 - \$9.99 _____
\$10.00+ _____

6) How would you rate the overall price of food on campus?

Inexpensive _____ Reasonable _____ Moderately expensive _____
Expensive _____

7) Are you willing to spend more money on foods that are produced in an environmentally friendly way? Yes / No

8) What age group are you in? Under 18 _____ 18-21 _____ 22-25 _____ Over 25 _____

9) What gender are you? Male / Female

Figure 1. Frequency of food purchases made on campus per week

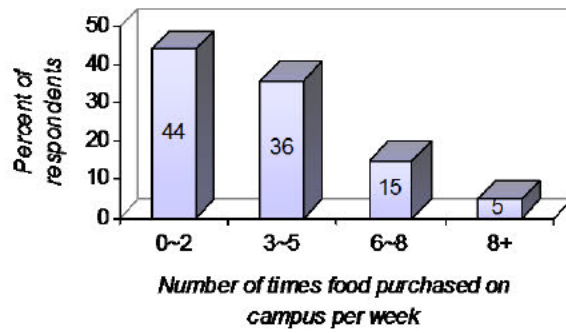
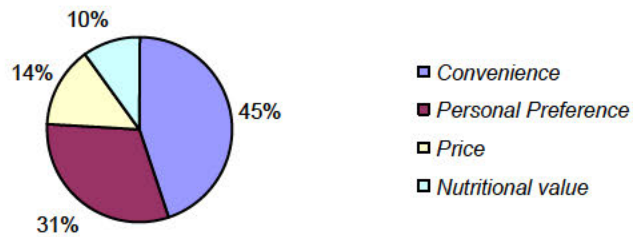


Figure 2. Primary reasons for visiting particular food outlets on campus among respondents



Appendix 3

Figure 3. Overall price level of food on campus rated by all respondents

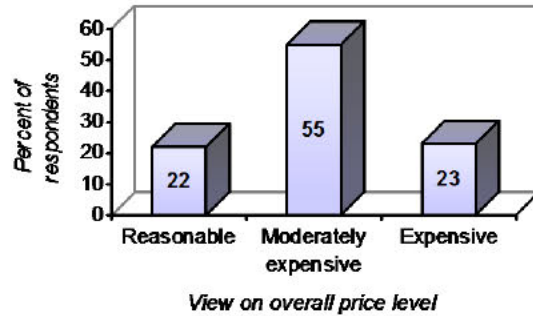
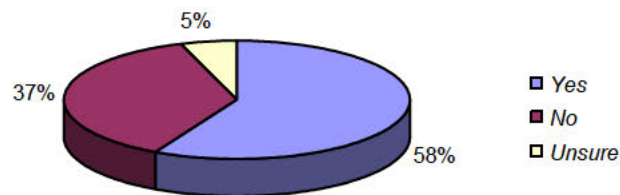


Figure 4. Answers from respondents when asked whether they were willing to spend more money on foods produced in an environmentally friendly way



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