UBC Social Ecological Economic Development Studies (SEEDS) Student Report

An Investigation into the Bring Your Own Container – Food Outlet Concept

Teague Ollivier, Andrew Ngai, Min Zhong, Oscar Yang

University of British Columbia

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Teague Ollivier

Andrew Ngai

Min Zhong

Oscar Yang

Applied Sciences 261

Tutorial Instructor: Faizal Karim

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Abstract

With the construction underway for the new SUB (Student Union Building), there are a variety of new opportunities to promote sustainability at UBC. One of these opportunities is the proposed sustainability program "Bring Your Own Container (BYOC) Food Outlet Concept". With the implementation of a cafeteria in the new SUB, this program would phase in a mandatory reusable container policy for customers wishing to eat at the food outlets. This would mean that all students who wished to eat at these outlets would be required to provide a container for their purchase. The program's purpose is to bring awareness to the student body of the importance of sustainability, and to recognize that by not using disposable containers we are reducing our waste.

The purpose of this report is to evaluate the feasibility of the program considered for the new SUB. By using a triple bottom line assessment, plastic and glass reusable containers were considered and compared to the current disposable containers used in the old SUB. In order to provide a complete assessment, a UBC student survey was conducted in order to gauge student's views on the program. In addition, a variety of secondary sources were used to investigate the economic and environmental aspects of the program. These included journal articles detailing the life cycle of glass, plastic and paper based recyclable containers and cost reports on the production of containers.

With a total of 86 respondents to the UBC student survey conducted, 56% were either not in favor, or had no opinion on the BYOC Food Outlet Concept. It was found that students considered the program to be time consuming. This was based on the fact that there is a lot of effort needed to bring and wash a container whenever one wishes to eat at an outlet. With regards to the economic aspect, it was found that overall a reusable container made of glass or plastic is cheaper in the long run compared to disposable containers. However, the savings from using a reusable container are very small considering that they would need to be replaced and washed multiple times per year. After investigating the economic aspect, it was found that in the production of glass and plastic containers, there are a number of environmentally unfriendly byproducts. Comparing the carbon footprint to disposable, recyclable containers, it was found that the reusable ones had a much larger impact on the environment.

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Glossary

Bisphenol A	A chemical compound that is used to make a variety of plastic materials, such as hard plastic toys,bottles and food containers.
Product Life-Cycle	The period of time over which a material is produced, used and discarded, as well as the particulars of each stage.
Styrene	An organic hydrocarbon that is used to manufacture rubber and plastic components.
Triple Bottom Line Assessment	A set of criteria analyzed, considering the social, environmental and economic aspects at hand.

1.0 Introduction

In recent years, we have seen a dramatic change in the way our society views the use of our natural resources. As awareness has grown over the limited supply of non-renewable energy sources, we have focused our attention on what we can do individually to be more sustainable. More specifically, at UBC, there are a number of initiatives aimed at promoting sustainability and getting the students involved. The BYOC Food Outlet Concept is a perfect example of this, as it aims at getting students to consider how much waste they are producing, and to cut back by using reusable containers.

This report includes a breakdown of the proposed Food Outlet Concept, with a detailed analysis from the economic, social and environmental aspects. For all aspects, the continued use of disposable containers as well as reusable glass and plastic containers were considered. Using this triple bottom line assessment our conclusions and recommendations for the best course of action are presented.

It is often difficult to see how the social, economic and environmental aspects are interrelated. Below is a schematic depicting this relationship. The overlapping area is of most significance, as it provides an understanding of how sustainability is the foundation to these three aspects.

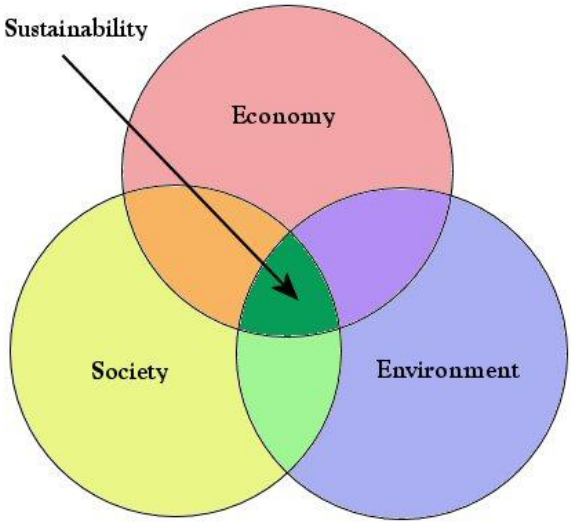

Figure 1 – Interrelationship of Economic, Social and Environmental Aspects –Iowa State University Database, 2009

2.0 Economic Aspect

In order to determine the feasibility of the BYOC Food Outlet Concept proposed for the new Student Union Building, the economic aspect was examined from both the student's and food vendor's point of view. This analysis includes the startup cost as well as continuing cost for the food vendors (in terms of volume of business) for the BYOC concept, as well as the student's cost of the purchase and use of a reusable container (both glass and plastic).

The factors discussed that impact the profits and losses of the food vendors from the BYOC program include:

- The impact on the volume of business from implementing the program, requiring students to bring a container in order to purchase food.
- Startup costs for implementation of the program
- The economic impact of not needing to provide disposable containers
- The change in food menu prices as a result of the program

The factors discussed that impact the cost for the students to participate in the BYOC program include:

- Cost to purchase a container (glass vs. plastic)
- Maintenance cost (replacement of container, energy consumed due to cleaning of container)
- Food menu price differences (savings) as a result of bringing a reusable container

2.1 – Economic Aspect – Food Outlets

In the current SUB, food vendors provide disposable containers (Styrofoam, Plastic or Paper-based recyclable materials) to customers. The expenses incurred by the vendors to purchase these containers are reflected in the menu prices of the food items. For example, at Blue Chip Cookies in the Student Union Building, the cost of a cup of coffee is increased by $0.25 if the customer does not provide their own coffee mug. Many other food outlets in the SUB charge the $0.25 fee for customers without their own containers.

Although the purchasing costs of these disposable containers (cups, bowls, food containers) vary from supplier to supplier, they are more or less balanced out in the $0.25 fee charged. This results in the consumer paying the entirety of the cost of the containers. These findings are summarized below in the "Bulk Purchasing Costs of Containers" table, retrieved from the "Restaurants and Institutions Journal – Vol 10 - 119". For comparison to our project, the data has been converted into Canadian Dollars, as this study was done in Europe. The cost of containers is comparable to Canadian food outlets, as the company considered (Shenling Corporation, China) ships worldwide at similar rates.

Analysis by type of container	
Cost of containers	C $0.115 ea
Purchase price per unit of current container/annual MTS lease price	
Number of containers required annually	12,800
Annual container cost	C $1472.00
Freight/shipping costs	
Annual cost of packing materials	$ 0.0018 ea
Annual cost to return containers	N/A
Annual freight costs	$ 0.044 ea
Annual labour to pack	$0.0077 ea
Other annual costs	N/A
Annual freight/shipping costs	C $659.40 total (including labour/packing)
Product costs	Total Cost: $2131.00 + tax per 12800
Annual cost of product loss	
Total estimated annual costs	Yields a total cost per container of: $0.19

Figure 2 – Disposable Plastic Container Analysis – "Restaurants and Institutions Journal – Vol 10 – 119"

As seen above, for plastic containers produced by Shenling Corporation, a world leader in disposable food container solutions, the **average** purchasing cost of a standard grade container is $0.19. For the purposes of this report, we have assumed that there is no inflation in the purchasing cost of the containers, compared to the menu price with the container provided.

In terms of the startup costs for implementing the BYOC program from the food outlet's perspective, there are no costs, except for the advertising of the change in the container policy. This advertising would be done by e-mail to alert all students of the new practice of bringing reusable containers, thus the food outlets would incur zero cost.

The most significant factor impacting the economic aspect is the change in volume of business from the implementation of the program. As the food outlets at UBC rely heavily on the business from students, it was important to determine if students would still be willing to eat at the outlets if they had to bring their own containers. The survey we conducted amongst UBC students included questions relating to this. The results are listed below.

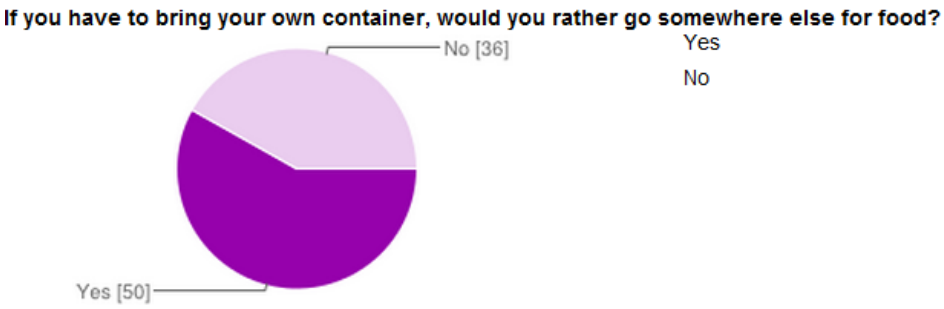

Figure 3 - UBC Student Survey – Question 6

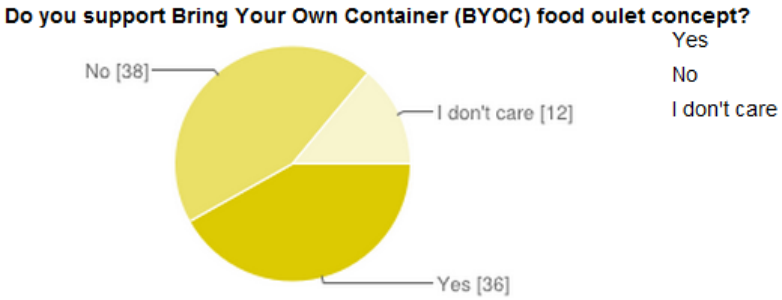

Figure 4 - UBC Student Survey – Question 3

From the survey results indicated in the figures, out of the 86 students surveyed, 50 would eat somewhere else if they were required to bring their own container. As there are many other food outlets on campus that do not require you to have your own container, this is a feasible alternative for students wishing to eat. From Question 3, 36 students support the BYOC food outlet concept, while the remaining 50 either do not support it, or have no preference. From these results, it is evident that a larger fraction of UBC students would prefer to not have the program implemented.

Relating to the food outlets, from these results we can infer that there would be a definite decrease in business as a result of the BYOC program. An exact percentage decrease is hard to define, however the results show that there would be a noticeable impact on the volume of business. This negatively impacts the food outlets, as their revenue would drop, due to students eating at other locations, or just bringing their own lunch from home.

2.1.1 – Economic Aspect – Students

In order to determine the total cost for students to participate in the BYOC program, we broke down the student's costs/savings into three categories. These are the initial cost to purchase the container (glass and plastic), the maintenance cost, and the food menu price savings.

2.1.2 - Initial Cost

As both glass and plastic containers are being considered, average retail prices for common containers were researched, to determine how much a student would have to pay. For plastic containers, the brand of choice was Ziploc, as they are the major company in reusable container industry. After researching the prices on several large retail stores (Wal Mart, Zellers, London Drugs and Superstore), the average price range for a lunch-size, standard plastic container with lid, was $3.99 to $7.99. The lower end containers are not as durable, and would need to be replaced approximately every 2-4 months, if used on a daily basis. The higher end ones would last for up to 4 months. These lifetime statistics were retrieved from Ziploc Products consumer feedback, listed on their website.

Glass containers on the other hand, were found to be much more expensive. The most common glassware containers produced for lunches are made by Snapware, a company from the United States, however there are hundreds of companies that make similar products. For glass containers, average prices were tabulated based on a variety of styles, models, and brands.

Prices from several large retail stores (Wal Mart, Zellers, London Drugs and Superstore) were averaged, and found to vary from $5.99 up to $15.99. Glass containers do last longer than their plastic counterparts (approximately 6-12 months), however it does depend on if the user is careful about storing the container properly, to prevent any possible accident.

From this data, we computed the average initial cost for the students (without the maintenance costs) to own a container for use in the food outlets at UBC.

GLASSWARE:

Average Annual Cost:

Mean cost of $9.50 plus taxes per container = $10.64 per container

Average lifespan of container: 9 months = (1.33333)*$10.64 = **$14.18 total annual cost on avg.**

PLASTIC CONTAINER:

Average Annual Cost:

Mean cost of $6.00 plus taxes per container = $6.72 per container

Average lifespan of container: 3 months = (3)*$6.72 = **$20.16 total annual cost on avg.**

Figure 5 – Average Annual Cost for Glass and Plastic Containers

As seen in the above table, the average annual cost of plastic is slightly more than that of glass. These amounts per year were then compared with the results from our survey, asking students how much they would be willing to spend on containers. These results are listed on the next page in section 2.2.2.

2.1.3 – Students

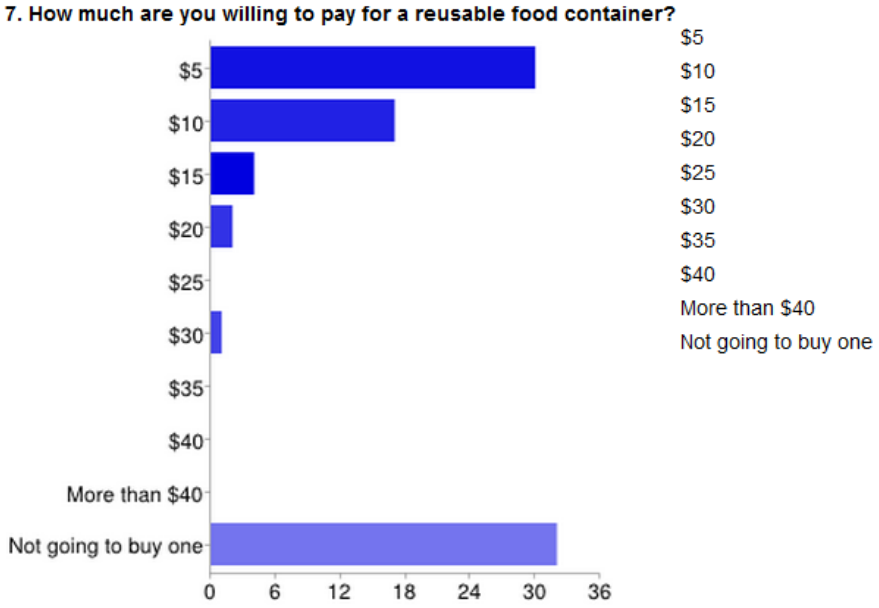

Figure 6 – UBC Student Survey – Question 7

From the survey results, it is apparent that most students are not willing to pay more than $10 for a reusable container. In addition, more than one third of students surveyed said that they would not even purchase a reusable container. However, as the cost of the majority of glass and plastic containers are less than $10, some students would still be willing to buy one.

It is evident from these results that the majority of students would be willing to pay the extra $0.25 per meal at the food outlets, instead of having to bring their own containers. Considering this from the economic point of view, they would actually save a small amount of money by bringing their own container over the disposable ones, as shown in the calculation below.

If a student eats, on average, 3 days per week at the SUB, then the total annual container fee that they would be paying (assuming 8 months of class per year) is approximately $29. *($0.25*3*52*(2/3) = approximately $29).* Comparing this to the average annual cost of using a reusable container, it would be about $10-$15 more expensive, per year, to use disposable ones.

To be complete in the economic analysis, it is important to consider the cost of maintaining the container. This includes the use of water and soap. From the economic point of

view, the cost for the students to do this is almost zero. In Vancouver, the cost of using an additional portion of water is zero, thus it does not cost the student any more money to wash the container. The amount of soap used over the year of washing the container would amount to less than $1, as the average 500 ml bottle of soap is less than $2.

2.3 Social Aspect

In this section, our team investigated the social aspect of plastic and glass containers, in terms of the working conditions in the factory and the major concerns of users of the containers. In addition, our team also investigated UBC student's opinions through and online survey as primary research.

2.3.1 Plastic

Plastic containers are mainly composed from oil which is a carbon-rich raw material (Freudenrich, n.d.). This carbon-rich molecular system called polymers, contain repeating shorter carbon compounds called monomers (Freudenrich, n.d.). Since polymers have high flexibility and strength in terms of molecular formation, it allows the manufacturer to produce different types and different sizes of food containers. However, the process of manufacturing plastic products and the product itself may produce harmful pollution waste that may influence our health.

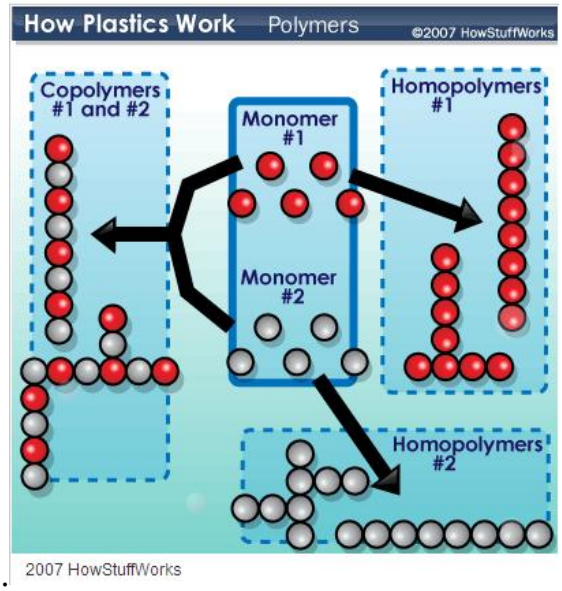

Figure 7 – Polymers – "HowStuffWorks Online" 2007

In recent studies, engineers and scientists point out that the workers in plastic industry may be exposed to harmful and hazardous materials, such as styrene, and bisphenol A (BPA). Styrene is a volatile organic compound that is often used in the plastic factory (Sati, 2011). Scientists, Sati and his crew, have examined thirty-four male workers between age 18 and 40 years old who were exposed to styrene in their workplace for more than 8 hours a day for more than a year. They found that exposure to styrene has significantly reduced their lung volume and capacities which leads to an increased level of oxidative stress. Furthermore, another study by Hougaard and his crew indicates that several plastic chemicals may potentially hazardous to the reproductive system. This information is particularly important to the program, as the social aspect of the production of the containers is relevant to the Food Outlet Concept.

Bisphenol A, also known as BPA, is one of the chemical compounds that can be found in many plastic containers. Many people have not heard of BPA before, however, BPA has been around us for decades. It does not only exist in plastic containers, but also in different kinds of plastic products, such as baby milk bottles and eyeglass lenses, etc. (Williams, n.d.). Many researches indicate that BPA can migrate into food from plastic containers, especially when heating up the food in a plastic container through microwave and store foods that are acidic, salty or fatty, such as tomatoes or gravy; these increase the portion of BPA releasing into foods (Williams, n.d.). One well-conducted study showed that 45% of the forty containers which were collected in four European countries had been detected to contain BPA. Therefore, almost every plastic container can be expected to leach trace amounts of plastic into food. Absorbing BPA into human body develops serious health issues, such as diabetes, heart disease, cancer and liver toxicity. Humans might not be able to exclude their life from plastic, but what humans can do is to use less plastic products to reduce their probability of getting diseases.

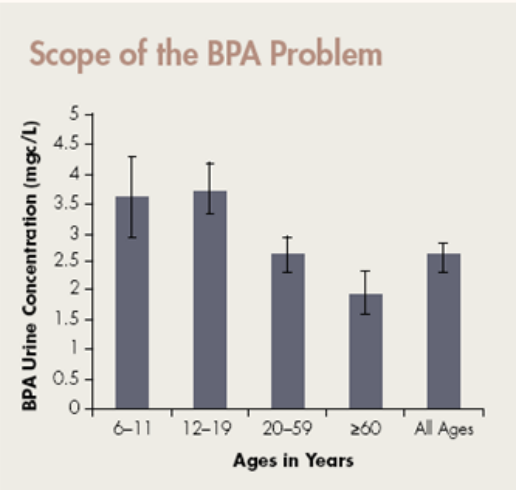

Figure 8 – BPA Poisoning By Age Range – "Journal of Health and Sciences, Williams" 2007

2.3.2 Glass

A Snapware Glasslock food container, one of the most commonly found brands, is composed of two parts: the glass bowl and the plastic cover. Glasses are made of approximate 75% silica that is usually found in quartz and sand. To extract these materials, workers have to be exposed to silica all day, which can lead to higher chances of silicosis. Silicosis is a nonreversible and fatal lung disease caused by overexposure to silica dust. "It is estimated that at least 1.7 million U.S. workers are potentially exposed to this silica. Since silica dust can travel in the air, the nearby residential areas could also possibly be affected and people who live there run a higher risk of having silicosis than people living in other areas.

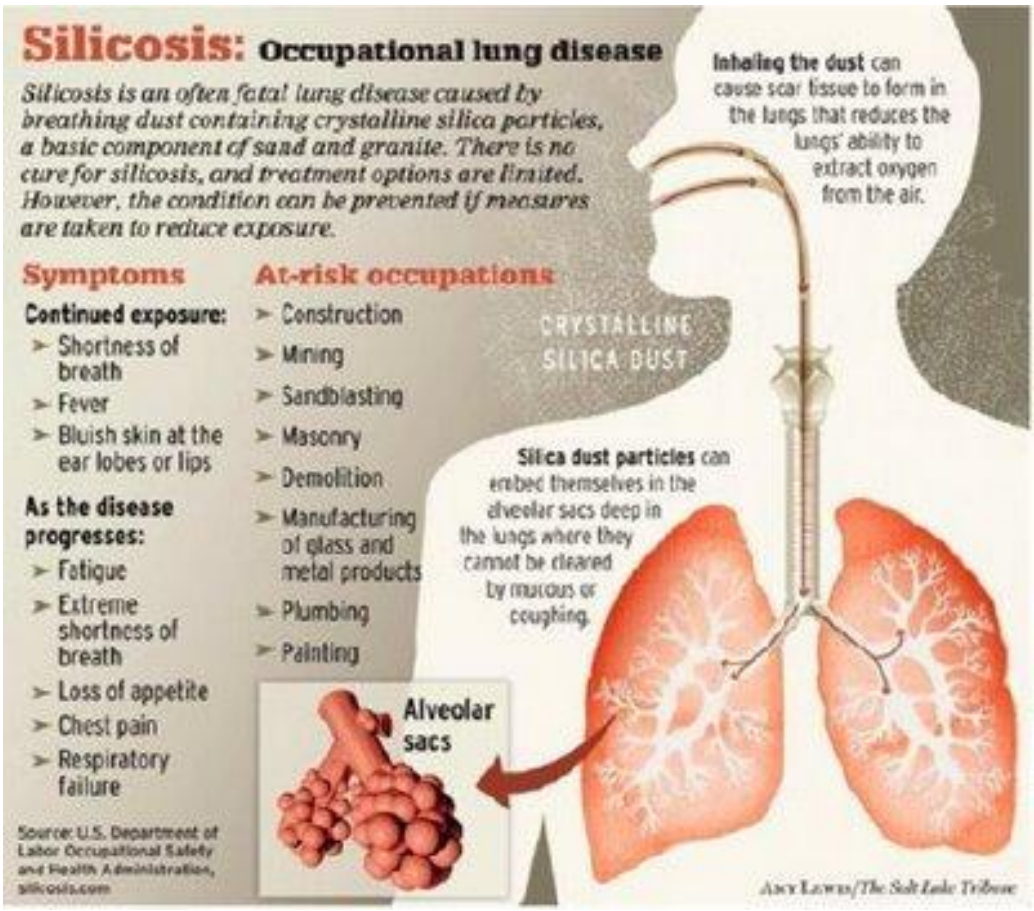

Figure 9 – Detailed Silicosis Description – Amy Lewis – The Salt Lake Tribune, 2004

During the manufacturing process, despite the air and water pollution that it produces, the noise that they produce also causes pollution to the neighborhood. The noise level of the machineries used in glass manufacturing factories could get up to 106 dB, which is equivalent to the noise made by a Boeing 707 aircraft before taking off. Moreover, the silica dust can also land on plants surrounding the workplace and could potentially harm the environment. There are also air pollution and water pollution concerns, which are mentioned in the environmental aspect of the report.

Comparing to other food containers, glass food containers provides a better overall experience due to its capabilities. Glass lock food containers can be put into ovens and microwaves, saving the user from using another container. Also, unlike plastic, it will not release any chemicals when used to contain hot foods. Glass products usually have a much longer lifetime time. Recycling glass is also more efficient than recycling plastic. Glass products can be recycled many times without losing any of its quality whereas plastic products will soon be non-

recyclable after a few cycles. Also, making glass out of recycled glass uses 35 percent less energy than making them out of the raw materials. On the other hand, plastic weighs significantly less than glass so the energy used in transportations will be greatly reduced. One of the disadvantages of using plastic products is that plastic cannot be recycled forever. All in all, glass food containers provide more advantages than plastic food containers.

2.3.3 - Student Online Survey

According to the data we collected from our online survey, it is clear that students at University of British Columbia are not in favor of the BYOC food outlet concept. From question number 5, it is evident that the majority of students are not willing to bring a container to school every day. In terms of the social aspect, this will affect the amount of people in the new SUB, as many students will resort to other places to eat. In addition, it may affect the feelings of students towards UBC, as this change will not allow students to eat without their own containers. From the second graph, we can see that there is further proof of the majority against the concept. Only 36 out of 86 students surveyed were in favor of the program.

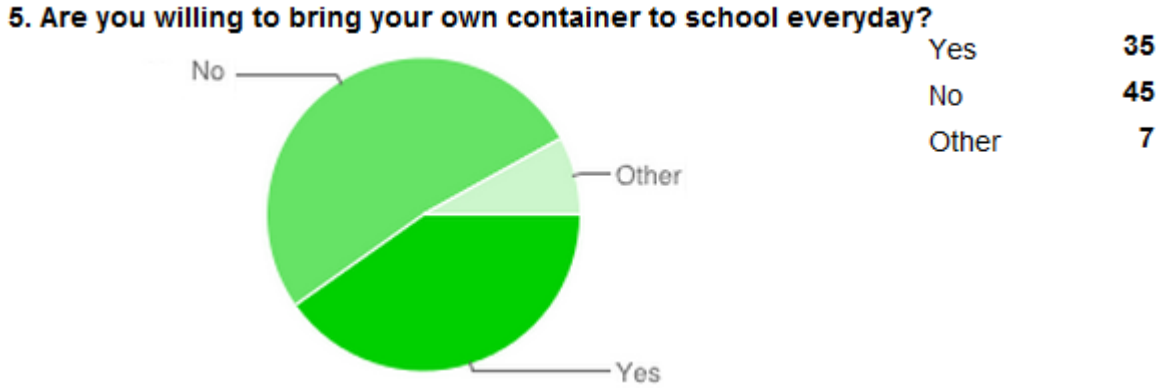

Figure 10 – UBC Student Survey – Question 5

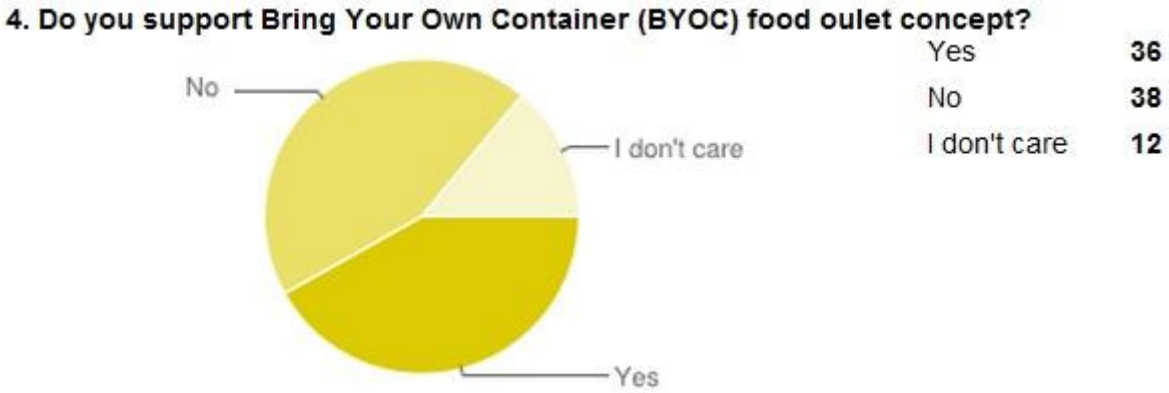

Figure 11 – UBC Student Survey – Question 4

2.4 Environmental Aspect

In order to determine which material is the greenest for the environment, various factors play into the environmental assessment. These factors include the amount of recycled content in container materials and the energy for producing, cleaning and transporting the containers. The table below illustrates the life cycle of a product. In this section, we mainly focus on the advantages and disadvantages of the plastic and glass being used for food containers, and compare those with disposable recyclable containers.

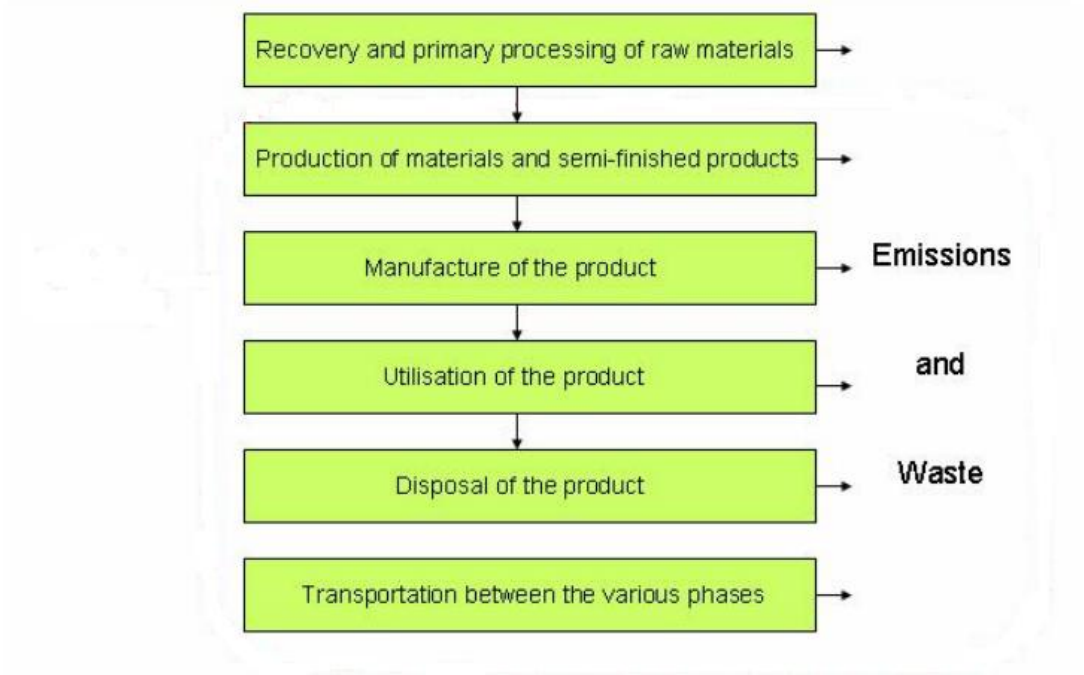

Figure 12 –Food packaging – Life Cycle of Products – "Journal of Food Science, 72 – 2005"

2.4.1 Plastic

Plastic is one of the most common materials for making containers. Plastic has the properties of strength and toughness, and there are various kinds of specific plastic containers can meet the needs of a wide temperature range. The most common uses of plastic containers are food containers, meal boxes and water and juice bottles.

Plastic containers require less energy in their manufacturing and transportation processes compared to glass containers because of their lighter weight and smaller volume. However, the main materials used to make plastic are crude oil and natural gas which are non-renewable resources. Considering the aspect of sustainability, it requires much more energy to produce these plastic containers, as opposed to disposable paper based ones. Plastic is a kind of composite, and when it is manufactured, many raw materials are melted by a combination of high pressure, friction and externally applied heat (Kirwan and Strawbridge). Many chemical activities are involved in its production and recycling processes, and most of the chemical activities generate toxic air and water pollution to the environment. Also, it is hard to recycle plastic containers. Plastic containers commonly have little recycled content. The other concern is that the majority of different types of plastic containers are not biodegradable, so once they are disposed, the landfill of huge amount of plastic waste causes white pollution to land and water.

2.4.2 Glass

Glass has been used for a long time in our food packaging history. The production of glass containers involves heating a mixture of silica (the glass former), sodium carbonate (the melting agent), and limestone/calcium carbonate and alumina (stabilizers) to high temperatures until the materials melt into a thick liquid mass that is then poured into molds (Marsh and Bugusu).

Glass containers are easy to clean and have a fixed shape. Because of these two properties, many manufacturers offer the return system to reuse and refill them. Recycling involves using a returned product in its original form and reprocessing the material into new products. The glass container usually contains lots of recycled content because they are easy to be recycled. Recycled broken glass (cullet) is also used in glass manufacture and may account for as much as 60% of all raw materials (Marsh and Bugusu). Both reuse and recycle of containers are considered as the achievement source reduction. Now, many manufacturers are producing lighter and thinner glass containers with improved resistance to breaking. Containers

with less weight use less space and energy when we transport and dispose them. However, glass containers are still heavy, fragile and compare to plastic containers.

Although glass containers benefit our environment since they are easy to be reused and recycled, there are still some negative environmental issues brought by their producing process. Melting the mixture of silica, lime and soda requires very high heating energy. This melting process produces air pollution, such as nitrogen oxide, into the atmosphere, and the cooling process of the melting mixture also generates water pollution. Besides, the noise pollution from the glass manufacturers is another concern for the workers and residential people nearby.

2.4.3 The Comparison of Plastic and Glass Containers

The following tables suggest the glass containers are more likely to be recycled.The weight of glass and plastic waste is from residential, commercial, and institutional sources.

Source material	Tons (million)	Percent of MSW by weight	Material discarded as a percentage of total MSW disposal
Materials			
Paper and paperboard	84	34.2	25.2
Glass	12.8	5.2	6
Metals			
Ferrous	13.8	5.6	5.3
Aluminum	3.2	1.3	1.5
Other nonferrous[b]	1.7	0.7	0.3
Total metals	18.7	7.6	7.1
Plastics	28.9	11.8	16.3

Figure 13 – Materials Generated and Discarded –"Journal of Food Science, 72 - 2005"

Materials	Weight generated (million tons)	Weight recovered (million tons)	Discards (million tons)	Recovery as percentage of generation
Paper and paperboards (34.1%)[b]				
Packaging	39.0	22.9	16.1	58.8
Nonpackaging	44.9	19.0	25.9	42.4
Total	83.9	42.0	41.9	50.0
Metals (7.6%)				
Packaging	4.3	2.3	2.1	51.3
Nonpackaging	14.5	4.7	9.7	33.0
Total	18.7	6.9	11.8	36.8
Plastics (11.8%)				
Packaging	13.7	1.3	12.4	9.4
Nonpackaging	15.3	0.4	14.9	2.6
Total	28.9	1.7	27.3	5.7
Glass (5.2%)				
Packaging	10.9	2.8	8.2	25.3
Nonpackaging	1.8	Neg.	1.8	Neg.
Total	12.8	2.8	10.0	21.6

Figure 14 – Impact of Packaging Materials and Recycling – "MSW Journal – 2006 Edition"

In summary, the table on the following page compares the advantages and disadvantages of glass and different kinds of plastics, as discussed. From this analysis, we see that there are several disadvantages that make disposable, recyclable containers a more viable option. This is on the basis of recycling content in the product, and energy consumed in the production of the product. Over the past 20 years, we have seen this shift in production of food containers, to specifically use recyclable paper based products. This shift is a direct result of the weighted benefits of these types of disposable containers, compared to reusable glass and plastic ones. Although there are many factors that need to be considered for a full scale analysis of disposable containers, by considering reusable ones, we can identify the areas where paper based products are more beneficial considering the environmental impact.

Material	Advantages	Disadvantages
Glass	• Reusable • Recyclable • Often contains recycled content	• Heavy and bulky to transport
Polyolefins	• Recyclable[a] • High energy source for incineration	• Easily recycled in semi-rigid form but identification and separation more difficult for films
Polyesters	• Recyclable[a,b]	• Easily recycled in rigid form but identification and separation more difficult for films
Polyvinyl chloride	• Recyclable[a]	• Contains chlorine • Requires separating from other waste
Polyvinylidene chloride	• Recyclable[a]	• Contains chlorine • Requires separating from other waste
Polystyrene	• Recyclable[a]	• Requires separating from other waste
Polyamide	• Recyclable[a]	• Requires separating from other waste
Ethylene vinyl alcohol	• Recyclable[a]	• Requires separating from other waste
PLA	• Recyclable[a,c] • Biodegradable hydrolysable	• Requires separating from other waste

Figure 15 – Comparing Material Types – "Journal of Food Science, 75 – 2006"

(a) All thermoplastics are technically recyclable and are recycled at the production environment, which contributes to lower cost. As inexpensive materials, postconsumer recycling competes with ease of separating and cleaning the materials.

(b) Recycled extensively for nonfood product uses.

(c) Can be broken down to monomer level and reprocessed.

3.0 – Conclusions and Recommendations

In conclusion, a total of three aspects were considered to determine the feasibility of the BYOC Food Outlet Concept. Each aspect considered the use of disposable containers and reusable glass and plastic containers. In regards to the economic aspect, the analysis showed that although there is a slight cost savings for students by using a reusable container, from the food outlets' perspective there would be a decrease in volume of business from implementing the program. This decrease in volume of business was indicated on the survey conducted, where 56% of students were either not in favor or had no opinion on the BYOC program.

In addition, from the survey results it was found that the majority of students were not willing to spend more than $10 for a reusable container. Although the cost of most plastic and glass reusable containers was found to be less than $10, they would need to be replaced several times per year. With regards to the social aspect, students indicated that they would not be willing to spend time washing a container after every meal. The disposable containers were preferred on the basis of convenience and ease of use.

After analyzing the environmental impact of reusable glass and plastic containers throughout their product lifecycle, it was found that there were several negative effects. These included the by-products created in the production of the containers which were found to contribute to pollution. Also, it was determined that the amount of recyclable materials in a reusable glass or plastic container is considerably less than that of a paper based, disposable container.

Weighing the advantages and disadvantages of all aspects, we determined that overall the disposable container is the best choice. Therefore, it is recommended that the new SUB should continue providing disposable containers to customers at the food outlets. However, the containers should contain post-consumer recyclable materials. Also, it is recommended that UBC should encourage students to participate in the BYOC program, but not make it mandatory. This will encourage sustainability on campus while allowing students to have a variety of eating choices.

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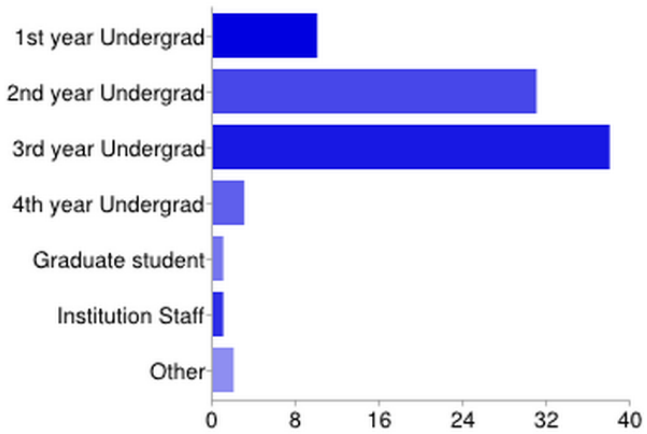
Appendix A

Sample Online UBC Student Survey, Conducted October – November 2012.

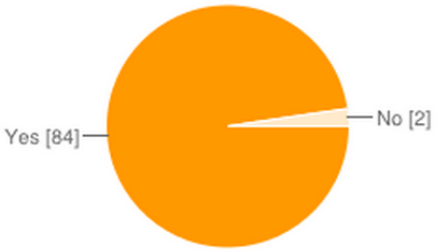
Total Sample Size: 86

1. What grade are you in?



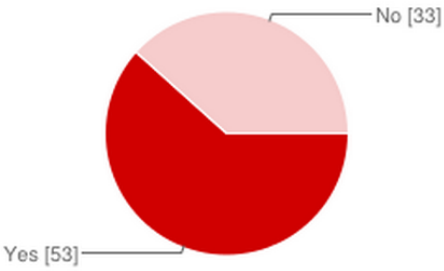
1st year Undergrad	**10**	12%
2nd year Undergrad	**31**	36%
3rd year Undergrad	**38**	44%
4th year Undergrad	**3**	3%
Graduate student	**1**	1%
Institution Staff	**1**	1%
Other	**2**	2%

2. Do you know UBC is building a New SUB, and it will be build in 2014?



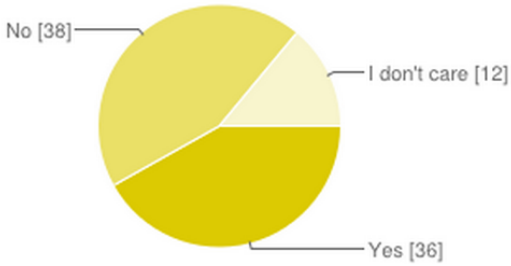
Yes	**84**	98%
No	**2**	2%

3. Do you think you have chance to use this facility during your future education?



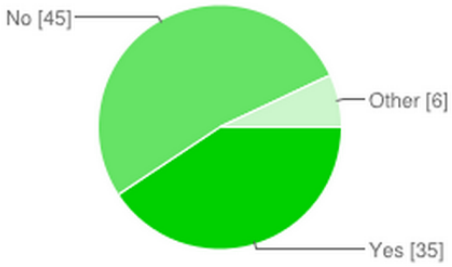
Yes	**53**	62%
No	**33**	38%

4. Do you support Bring Your Own Container (BYOC) food oulet concept?



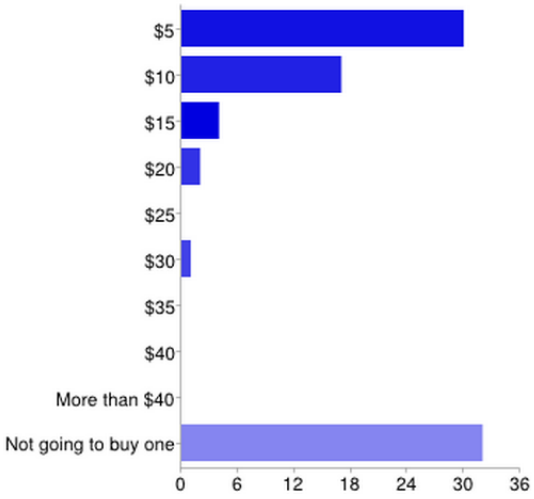
Yes	**36**	42%
No	**38**	44%
I don't care	**12**	14%

5. Are you willing to bring your own container to school everyday?



Yes	**35**	41%
No	**45**	52%
Other	**6**	7%

7. How much are you willing to pay for a reusable food container?



$5	**30**	35%
$10	**17**	20%
$15	**4**	5%
$20	**2**	2%
$25	**0**	0%
$30	**1**	1%
$35	**0**	0%
$40	**0**	0%
More than $40	**0**	0%
Not going to buy one	**32**	37%