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Improving Access, Affordability, Fairness, and Efficiency of the Good Food Bus Mobile Market

Adair Andre
Bates College

Joakim Cohen
Bates College

Josephine Gillett
Bates College

Nell Houde
Bates College

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Adair Andre, Joakim Cohen, Josephine Gillett, Nell Houde
For ENVR 417 - Community Engaged Research in Environmental Studies

Department of Environmental Studies, Bates College
Lewiston, Maine

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EXECUTIVE SUMMARY

Pulled by a pick-up truck and operated out of a retrofitted trailer, the Good Food Bus (GFB) is a mobile market run through the St. Mary's Nutrition Center in Lewiston, Maine. With the mission of bringing good food to where people live, work and play, the GFB is committed to providing fresh and local produce to neighborhoods and communities that suffer from a lack of access to healthy and affordable food. The GFB will be starting its fourth season of operations in June of 2018 and are in the process of critical reflection on what the successes and priorities of the GFB are and how they can be improved for the upcoming years. We, a group of students from Bates College, assisted in this assessment focusing specifically on investigating and improving A) waste management and storage, B) product display, and C) access and affordability. Research on these subjects was done through a review of both web and scholarly literature, outreach to other similar mobile market programs, listening sessions with community members and trips to the GFB and other markets.

Through our research and compilation of data, we have found that there are a few specific steps that the GFB could take to improve the efficiency, affordability, accessibility and fairness of the program. First, depending on available funds, there are many different options to mitigate food loss and maximize efficiency ranging from solutions as simple as ice-packs and as advanced as solar panels. Second, the fundamental structure of the product display is effective and can be enhanced through additional displays such as chalkboards, tables, and baskets that would improve accessibility and better highlight products. Finally, the GFB is doing a good job of reflecting the real cost of food while keeping prices low, but there are a few options for additional programs that would increase affordability without undercutting farmers.

While we hope that this synthesis provides helpful feedback and suggestions to the Good Food Bus team, we also hope that this can serve as an informative guide for internal reflection and assessment for other mobile market programs. In the report below, you will find background information on issues surrounding access to fresh, healthy and local food, detailed methodology outlining our approaches to finding information, and synthesized recommendations for improvements moving forward.

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

TABLE OF CONTENTS 2

INDEX OF TABLES AND FIGURES 3

Figures 3

Tables 3

INTRODUCTION 4

METHODS, RESULTS, AND RECOMMENDATIONS BY FOCUS AREA 8

Focus Area A: Product Storage and Waste Management 8

A1: Methods 8

A1: Results 9

A1: Recommendations 13

Focus Area A2: Product Storage and Refrigeration 15

A2: Methods 15

A2: Results and Recommendations 15

Focus Area B: Product Display 17

B: Methods 17

B: Results and Recommendations 17

Focus Area C: Access and Affordability 19

C: Methods 19

C: Results 21

C: Recommendations 23

Focus Area D: Listening Sessions 25

D: Methods 25

D: Results and Recommendations 26

TAKEAWAYS AND RECOMMENDATIONS 30

REFERENCES CITED 31

APPENDICES 32

APPENDIX I: Questionnaire 32

APPENDIX II: Waste Data Spreadsheet 33

APPENDIX III: Product Display 37

APPENDIX IV: Price Comparison Spreadsheet 37

APPENDIX V: Listening Sessions Report 40

INDEX OF TABLES AND FIGURES

Figures

Figure 1: Conceptual Framework 7
Figure 2: Top 15 Spoiled Products 12
Figure 3: Monetary Loss from Spoiled Products 12
Figure 4: Least Popular Items 13
Figure 5: Add-on Options for Product Display 19
Figure 6: General Pricing Trends 21
Figure 7: Price Comparisons for Top Grossing GFB Items 22

Tables

Table 1: Food Loss 10
Table 2: Cost of Food Loss 11
Table 3: Cost Comparisons of Refrigeration Systems 16
Table 4: Signage Examples 18

INTRODUCTION

Even as the food systems in the United States have become more modernized, and, hypothetically, can produce more food than ever at a lower cost to the consumer, one in eight Americans are food insecure (Anderson 2008; Coleman-Jensen et. al. 2016). Food insecurity, as defined by the USDA, is "a lack of consistent access to enough [nutritious] food for an active, healthy, life." Further, food insecurity is disproportionally found in socially deprived, low-income, inner-city neighborhoods (Mead 2008). Fast-food restaurants and convenient stores with limited or no selection of fresh, healthy food are often the main source of food products in these neighborhoods (Widener et. al. 2012). Food insecurity quickly becomes a health issue when people do not have consistent access to healthy foods and instead consume convenient, but highly processed foods that contain excess salt, sugar and fat. Eating these foods on a consistent basis has been shown to lead to many adverse health outcomes including cancer, obesity, diabetes, and cardiovascular disease (Widener et. al. 2012). Maintaining a healthy diet to prevent these adverse impacts requires affordable and accessible food (Walker et. al. 2010).

Politicians, academics, policy makers, nonprofits, and community members have spent time thinking about how to alleviate food insecurity by bringing affordable and accessible food to high-risk communities. Many nonprofits have turned to the idea of a mobile market, a farmers market on wheels, to try and mitigate some of the barriers to healthy food in these neighborhoods. These mobile markets have been formed based on this underlying assumption that improving food access in communities of high food insecurity will yield better health outcomes in these communities (Widener et. al. 2013; Zepeda et. al. 2014). The idea is that lack of access presents a constraint to eating healthy foods, so therefore having healthy foods in a community will facilitate healthy choices, and hopefully lower the potential cost of these foods as well (Wrigley et. al. 2002; Zepeda et. al. 2014). This idea is supported by a study in London that found that the introduction of a farmers' market in a community with high levels of food insecurity increased the availability of healthy food and actually lowered the overall food costs for households in the neighbourhood (Larsen and Gilliland 2009). Since mobile markets are a recent phenomenon, there is not a lot of literature on the effectiveness of this method. However, preliminary studies have found that mobile markets increase access to fruits and vegetables, increase the prevalence of healthy foods, increase fruit and vegetable consumption, and increase food security in the neighborhoods in which they are implemented (USDA 2013). Further, a study by the USDA found that, "for the participants in the study, mobile markets facilitate healthy eating… and on average, those who shopped at mobile markets (shoppers) ate significantly more fruits and vegetables than those who did not (non-shoppers)" (2013). Though mobile markets are a new invention, they are at least starting to make fresh food more accessible in food insecure communities.

Lewiston, Maine is a community dealing with food insecurity. As of 2013, 22.5% of the population of Lewiston lives below the poverty line, and in some parts of downtown Lewiston, over 67% of the district is living in poverty (Good Food Council 2013). Similarly, parts of downtown Lewiston are located at least 2 miles from the closest grocery store, and 59% of downtown Lewiston residents do not have a car (Good Food Council 2013). Worst of all, it was found that in downtown Lewiston, "healthy food is on average 40% more expensive than the same food in stores on Lewiston's outskirts" (Good Food Council 2013). In this survey done by the Good Food Council of Lewiston-Auburn, the authors found that the most serious challenges facing food insecure populations in Lewiston are access because of geographic isolation and limited transportation, lack of affordable food, and limited food choices at downtown stores (2013). This research in Lewiston has corroborated previous research indicating that "poverty goes hand in hand with food insecurity, which goes hand in hand with health issues" (Good Food Council 2013).

There are many social networks that are working on increasing food security in Lewiston. One actor in the social networks is a mobile market called the Good Food Bus (GFB). The mission of the GFB involves providing easier access to healthy, affordable, and local food. The GFB was established in 2015 as a joint venture of St. Mary's Nutrition Center and Cultivating Community, while later receiving support from Harvard Pilgrim HealthCare Foundation and the USDA to continue its program. They serve people in Gorham, Westbrook, Lewiston-Auburn, and Bath from July to November, selling primarily seasonal produce and essential food items from local farms and vendors. They also sell "Anchor Meals", an assembly of foods with a recipe to serve 2-4 people, to ease cooking stress (Good Food Bus 2017). Though they get some select items from outside of Maine, such as citrus and bananas, they believe that "small-scale, Maine agriculture is an important part of Maine's economy, culture and future" and thus receive the majority of what they sell from local producers such as Emery Family Farm in Wayne and Fresh Start Farms in Lisbon (Good Food Bus 2017). Their ultimate goal is to support local farms and provide affordable food while also maintaining their mobile market business.

Though they have had three successful seasons thus far, and sales are up 40% from the first year, there are many issues they are working to overcome (Sherie Blumenthal, meeting with authors). One of these challenges is striking the balance between supporting the local farm economy while also keeping food affordable. Though they are a subsidized program and could likely discount food to make it more affordable, they don't want to undercut the farms and producers which are selling to similar locations. One method they have employed to address this is to accept payments from SNAP/EBT and WIC recipients, and provide bonus fruits and vegetables to those who use these assistance programs through the Maine Harvest Bucks program. Though this is a great step in the right direction, they are interested in finding other methods to make food accessible and affordable, while also not undercutting other vendors. Beyond this greater issue, they are also consistently addressing the logistical challenges of providing food on wheels, such as product storage and management, food waste, and managing space and display. To best assist the Good Food Bus team with these issues, at the beginning of this research project, we identified our aims and objectives as follows:

Aim: To provide information to and assist the Good Food Bus (GFB) team in **maximizing the potential** of the GFB program by increasing its accessibility, efficiency, affordability and fairness.
Objective 1: Through focus groups and research, identify some of the barriers that make mobile markets inaccessible, to further increase information about **accessibility** and enable the GFB team to make their mobile market more accessible to the people of Gorham, Westbrook, Lewiston-Auburn, and Bath.
Objective 2: Draw upon existing literature and conversations with other mobile market teams to understand the ways these mobile markets have balanced **affordability** of produce with **fairness** to local farmers, and make recommendations for ways the GFB can improve in this respect.
Objective 3: Explore the ways other mobile markets have improved **efficiency** to be able to provide the GFB concrete ways to streamline their operations, both in making the actual trailer more energy efficient, and by reducing excess food waste and labor time.

The GFB team provided us with four focus areas that address these objectives and inform our larger aim. Focus Area A (Product Storage and Waste Management) investigates product storage and waste management by analyzing waste data and then looking for ways to mitigate food waste and food loss, including investigating the feasibility of converting the GFB trailer into a mobile refrigeration unit. Focus Area B (Product Display) deals with product display by looking into ways to make the GFB physically more accessible and customer-friendly. Focus Area C (Access and Affordability) explored the accessibility of the GFB by comparing price data from the GFB to other retailers and analyzing the different strategies implemented by other mobile markets to make their food more affordable to customers. For Focus Area D (Listening Sessions) we took notes at listening sessions held in the different communities that the GFB serves, and used this as a method to to gather information that would later inform our other Focus Areas. Other methods included on-the-ground research whereby our group visited the Good Food Bus and other markets; a questionnaire sent out to other mobile markets to compare their project design to that of the GFB (Appendix I); and an extensive web and literature review of academic articles and the websites of other mobile markets to get a nuanced picture of why and how mobile markets are utilized in communities of high food insecurity. To better understand how all of these moving parts relate to one another, we created a graphic to demonstrate the interconnectedness of the methods, focus areas, objectives and aim (Figure 1).

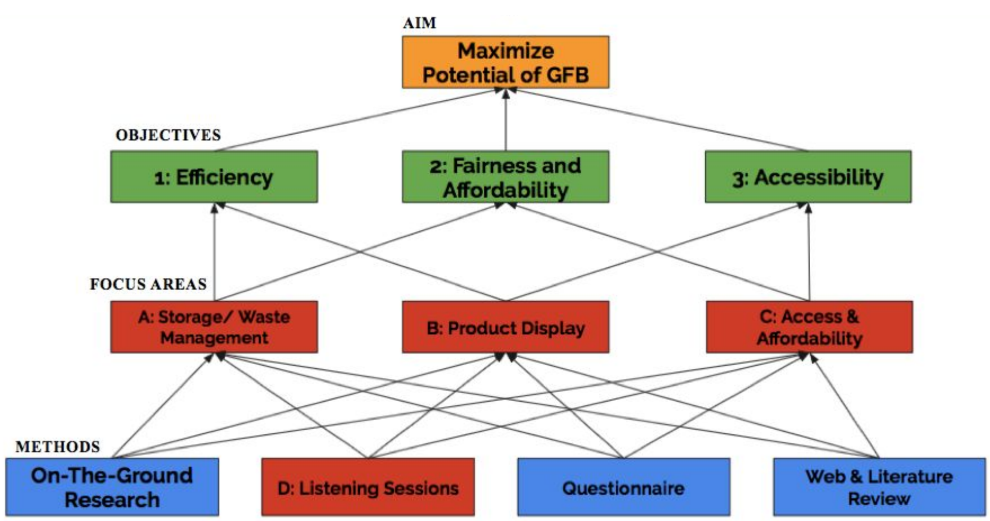


Figure 1: A conceptual framework to clarify how our methods (blue) inform our focus areas (red) and how those map onto our objectives (green) and our larger aim (orange) for this project.

METHODS, RESULTS, AND RECOMMENDATIONS BY FOCUS AREA

Focus Area A: Product Storage and Waste Management

For clarity purposes in this report, Waste Management is denoted as Focus Area A1 and Product Storage and Refrigeration is denoted as Focus Area A2. These were not separated into separate Focus Areas because Waste Management and Product Storage have closely related strategies.

The goals for addressing the issues of product storage and waste management on the Good Food Bus were two-fold: determine total food loss, costs associated with food loss, and trends in food loss for specific products to be able to discern potential solutions to alleviate this food loss, including investigating the potential to configure the trailer into a mobile refrigeration system.

Focus Area A1: Waste Management

A1: Methods

Determining GFB Food Loss

The GFB keeps track of their purchases, inventory, and sales using a web program called the Farmers Registry. The Farmers Registry had data for the entire 2017 season in various reports. Generally it provides good data, but there are some times when various reports don't match up in information, so certain specific data may not be entirely accurate.

Within the Farmers Registry there were two reports which were especially useful for determining food loss: Inventory Actions and Product Profitability. In the Inventory Actions report, it outlines inventory increases or decreases as they come in, the wholesale and retail costs, the wholesale and retail quantities, as well as inventory actions. Inventory actions denotes the gain or loss in inventory. If there was an inventory loss, the loss was explained in the Reduction Type column. Reduction Type had five categories: spoiled, damaged, donated, resold, loss, and unknown. Besides resold, all of these reduction types led to a loss of profit on these items. Resold generally meant it was going towards being used in an anchor meal. It is assumed that spoiled and food loss was food taken from the system which could no longer be used for other reasons, and thus was composted. Damaged, donated, lost, and unknown, could be used for other reasons but was a financial loss for the GFB. The unknown category could also entail a mix up in the system in inputting data or human error, and thus is not actual food loss.

The second report which was used to determine food loss data was the Product Profitability Report. The Product Profitability Report provides a summary of each products inventory, quantity sold and lost, prices and costs, and profitability statistics. These totals were cross referenced to calculated totals of quantity, cost, and loss in the Inventory Transactions Report to ensure that there was consistency through the reports. These reports provide similar information, but the Inventory Transactions report provides more specific reasons for food loss, and the Product Profitability Report provides more readily available general trends.

Questionnaire for Other Mobile Markets

The questionnaire which we sent to various mobile markets provided information about average food loss on mobile markets, and provided us with potential waste management techniques. For this focus area we focused primarily on questions 5, 6, and 7 of the questionnaire (Appendix I).

A1: Results

General Trends- Total Food Loss and Associated Costs

Before discussing the specific results from the Farmers Registry it is important to note that there are inconsistencies in the data. In cross referencing the Inventory Actions and the Product Profitability reports there were some inconsistencies in the wholesale quantity purchased, total wholesale cost, amount lost, and amount resold (i.e. when the total wholesale quantity was calculated in the Inventory Actions report it did not equal the noted total wholesale quantity in the Product Profitability Report). Furthermore, there was significant food loss data which was marked as “unknown.” (Table 1) As stated in the methods, this could simply be due to human error or miscalculation, not actual food loss. Yet there could also be some unknown which is food loss, but the nature of where the food was lost is uncertain. These incongruencies in the data make it so that the following results are not exactly representative, but provide important general themes.. For that reason, when looking at more specific products, we will focus solely on the “spoiled” category.

	Spoiled	Damaged	Donated	Unknown	Total Loss
Number of Products	419	4	124	340	971
Average Percent per Product	10.47%	.13%	3.86%	1.75%	16.22%

Table 1. Total product loss and average per product loss for various food loss categories across all 74 products studied.

The following food loss data analysis includes only fruits, vegetables, and eggs (no grocery, dairy, or nuts). There was some minor waste data for a few grocery items (for example, there was one loaf of damaged bread), but the rest was negligible or had no data (i.e. it did not exist in the Inventory Actions report). The total produce loss for all categories (spoiled, donated, damaged, unknown) for the 74 products measured for the 2017 GFB season was 8.53% (calculated by dividing the total quantity of products lost by the retail quantity purchased). Even though this percent may not reflect the actual food loss of the program (because of the "unknown" loss), this percentage reflects the total potential food loss which may have occurred. This food loss amount is comparable to the other mobile markets in the questionnaire, which amounted to an average of 6% among six mobile markets. For the specifics of food waste management however, we examined simply the amount of "spoiled products" which adds up to 3.8% of all products measured. Of those 74 products, 43 had some amount of spoilage, and 31 had no spoilage at all.

The costs associated with total food loss and spoil reflect the various prices of those lost products. The costs associated with total food loss and food spoil from all products can be seen in Table 2. The cost for buying the product reflects the actual monetary loss from the food spoil/loss, but there is also the opportunity cost to be considered in not having sold that product. This monetary loss could be factored into payment for waste management strategies and refrigeration, as it is likely these costs would lessen with better techniques.

	Spoiled	Total Loss
Total Monetary Loss Based on Average Unit Cost per Product	$789.16	$1769.45
Total Monetary Loss Based on Average Unit Price per Product	$1,058.45	$2275.92
Percent Monetary Loss Based on Total Unit Cost versus Total Wholesale Cost	4.93%	11.05%

Table 2. Costs associated with food loss and spoil for all 74 products studied. The first row is based off of the unit cost when buying the products wholesale. The second row is the amount that was lost from not having sold that produce at the average mark-up price. The third row is a calculation of the unit wholesale cost of the products divided by the total wholesale costs of all the products bought (i.e. percent of money lost based on unit costs).

Product Specific Food Loss

In order to make a relevant waste management program to the GFB, it is important to know which products need to be targeted. The following section analyzes the top 15 most spoiled products, the top 15 products which lead to the most monetary loss from spoil, and the 15 least popular products. For a full analysis of each product for these various variables (as well as for other food loss categories) see Appendix II.

In looking at the fifteen most spoiled foods, common trends included herbs, greens, or less commonly sold "niche" items such as shitake mushrooms and tomatillos (Figure 2) . The most spoilage a product had was 77% (cilantro). For specific costs associated with spoil, similar trends exist, with five products appearing in "top 15" for both (cilantro, eggplant, collard greens, jalapeno peppers, and celery stalks) (Figure 3). Though the most cost from any one product that season was only $55.51 (slicing tomatoes), it can be seen above how much these costs can add from the global summary above. Lastly, in considering product-specific methods for food loss reduction, it is important to recognize the amount of demand, or "popularity," there is for certain products (Figure 4). In cross-referencing these least popular products with the most spoiled products, there are six which exist in both (cilantro, kale, tomato paste, mushrooms, shiitake mushrooms, and swiss chard). In fact, the least popular product, with only 14% of which was purchased having been bought, was cilantro, which appeared in both of the other graphs.

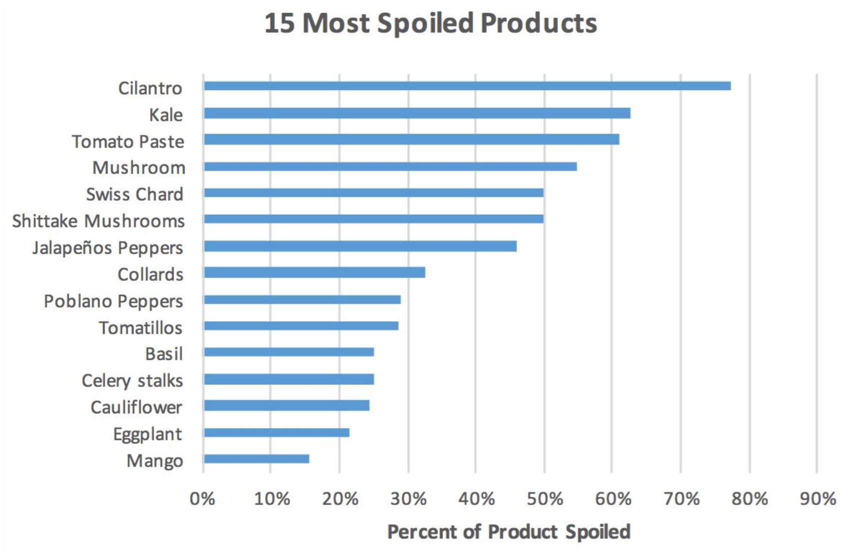


Figure 2. Top fifteen most spoiled products in the 2017 GFB season. Calculated by dividing number of spoiled items product by the total number of purchased items of that product.

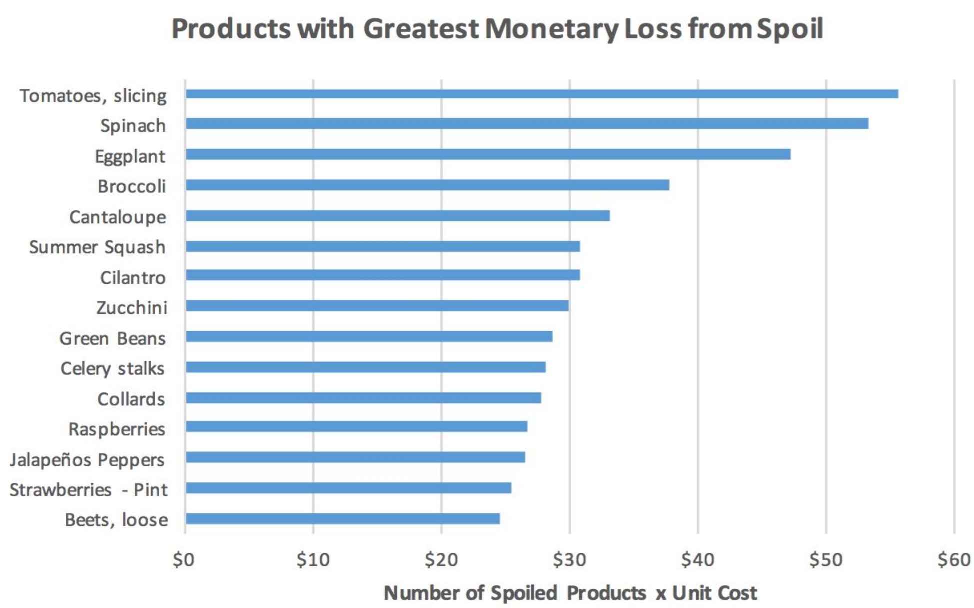


Figure 3. The fifteen products with the most monetary loss due to spoil in the 2017 GFB season. Calculated by multiplying the number of spoiled by the average cost of purchasing the product. It should be noted that these costs would be even greater if multiplying this spoil by the sale price of that product.

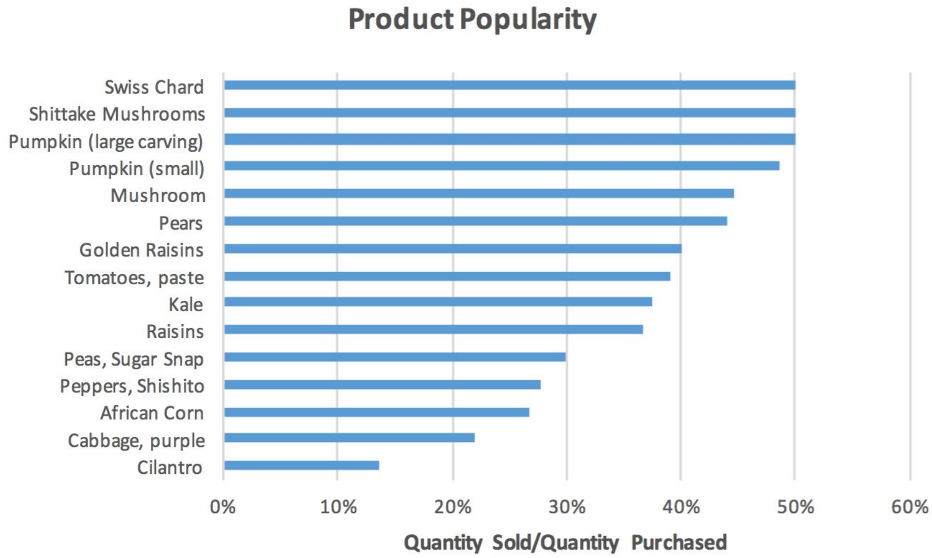


Figure 4. The fifteen least popular products in the 2017 GFB season. Calculated by dividing the quantity sold by the quantity purchased of each product.

A1: Recommendations

Though we will provide suggestions for how to do a greater revamp to reduce food waste with a new refrigeration system, there are also many options which are simpler and cheaper fixes to reduce food loss. The following suggestions for addressing waste are compiled from the questionnaire or were brainstormed by our group. For those which were recommended by other mobile markets, they are cited following the suggestion. We included all relevant and feasible suggestions which came from the survey, but ordered them from more highly recommended to less based on their suitability to the GFBs goals as a program, their likely effectiveness, and their ease in implementing:

1. Handle products as little as possible and properly training staff (SAMM Van; Fresh Truck; Real Food Farm)
2. Display with cooling capacities: putting ice packs in display containers and covering them with cloth, and then resting produce on top (SAMM Van); nesting industrial plastic containers (one large with ice water, with one smaller one inside with the produce (and there are fitting tops so they won't spill during motion); having an herb rack made of mason jars which hold water and are stored in the fridge when not on display to keep herbs from wilting.

3. "Bruised but Beautiful" basket for ripe or lightly damaged produce. Anticipate spoilage a few days out and put those items on discount. Can have various levels of discount based. on the quality of the product (My Street Grocery; St. Louis MetroMarket; Freshest Cargo) This program is especially beneficial because it addresses the issue of affordability for clients, while also allowing the GFB to recoup some losses.
4. "Product of the week" with a recipe for how to cook that product and some facts about why that product is nutritionally beneficial. This would help for some of least popular and niche items which people may not be as familiar with (Figure 4). With available time and facilities, the GFB could even provide small tastings of that item.
5. Assorted bunches of herbs and greens which would allow customers to only take the amount they want (rather than already having prepackaged quantities). This is especially relevant to herbs, which people may not want to spend much money on, and which people only need small amounts of for meals.
6. Strategic ordering, FIFO (first in first out) inventory, dating deliveries, and analyzing past weeks sales to optimize purchase amount (Mobile Food Market; Fresh Truck; Freshest Cargo). Some of these strategies are already adopted by the GFB, but the more time spent on specificity of these and figuring out an efficient system to keep up with these would be beneficial. It is also important, though, to consider the relationships to farmers and their reliance on the GFB to sell certain products they produce.
7. Value added processing such as pickles, salsas, or juicing. This could be done by the GFB themselves or could be a partnership with a local commercial kitchen (Mill City Growers). Though this requires more time and labor, it is beneficial because it allows for a greater potential profit, and it can allow for produce to last longer into the season (for the GFB and for customers).
8. Removing less popular and expensive products from sales. This could be determined by assessing the food loss/spoil, expenses, and popularity of each product provided in Appendix II. Similar to suggestion 6, it is also important to consider the farmers who may rely on the GFB for sale of certain products.

9. Keeping back storage in coolers and out of sun during the hot months to keep products looking good, especially those that tend to wilt (greens and herbs) (SAMM Van; Real Food Farm). This is a great option for cooling, but is more laborious and takes up more space than the other cooling options presented above.
10. Partnering with Local Restaurants who purchase leftovers to recoup costs, or sell to staff. (Mobile Food Market; Freshest Cargo) This would be time consuming and cumbersome to GFB employees, and does not necessarily provide for the current goals of the GFB. However, if the program continues to expand, it may be a worthwhile option.

Focus Area A2: Product Storage and Refrigeration

A2: Methods

To tackle the issue of storage and refrigeration we looked at how other mobile markets addressed this through looking at websites of mobile markets as well as through the responses collected from Adair's questionnaire. We also researched the feasibility of alternative modes of refrigeration as well as the potential costs involved in such systems.

A2: Results and Recommendations

Most other mobile markets we've researched have small chest refrigerators and freezers installed on board their bus. Others use cold plate refrigeration and others only have a walk in refrigeration unit at their Headquarters. The ones with refrigerators on board only plug them in when stationary, but one mobile market (The Mill City Grows Mobile Market) has actually installed solar panels on the roof of their bus to power the refrigerators on board. We later explored the feasibility of such a system for the Good Food Bus team but mainly focused on the potential of converting the Good Food Bus trailer into its own mobile refrigeration unit.

With the installation of a 24k btu window AC unit hooked up to a temperature modifier called "coolbot", the AC unit would be capable of reaching temperatures below its pre programmed minimum of 60 degrees. With complete insulation of the walls, ceiling and floor, the trailer would theoretically be able to reach temperatures in the high 30s to low 40s. This would allow the good food bus team to store their produce on the trailer itself and not have to worry about loading produce from their refrigerators in the Nutrition Center to the trailer itself.

Refrigerating the whole trailer would also allow produce to stay fresh for a longer duration of time while they travel to the different locations they serve. In this setup, the AC unit would be plugged into an outlet while stationary at the Nutrition Center or at an actual stop. While on the road, the AC unit would be turned off and the temperature would stay somewhat stable throughout the duration of the drive. For on the road refrigeration however, the purchase of a gasoline generator would need to be considered.

These costs are to be considered and compared with the GFB team's current refrigeration and storage systems to see if it would be cost effective (Table 3). Keep in mind that there are additional costs of electricity and or gasoline for the generator whereas if solar energy is contemplated, this would be a fixed cost when counting the necessary purchase of an inverter and batteries for electricity conversion. If the refrigerated trailer setup becomes too expensive, the current chest refrigerators on board could be hooked up to solar panels that could potentially be installed on the roof of the trailer. Although a big investment, the installation of solar panels would reflect positively on the Good Food Bus team in terms of sustainability and environmental consciousness and could possibly be a big advertising point.

Materials needed	**Costs**
Window AC Unit (24,000 BTU)	~$625
Coolbot Device	~$300
Insulation (4 inches of polyisocyanurate recommended)	$23 per 1 inch x 4ft x 8ft ~$1,400
Gasoline Generator	~$500 (depending on brand)
or Solar Panels	Minimum 1kwh/day system ~$3,410

Table 3. Costs associated with converting GFB trailer into a mobile refrigeration unit. Solar panels are not necessary, but depending on availability of funds, could be considered.

Focus Area B: Product Display

This focus area investigated what physical changes could be made to the product display on the GFB. Accessibility, efficiency and aesthetic appeal were all considered when designing new ideas for display.

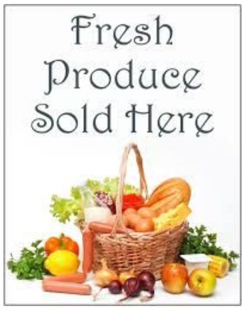
B: Methods

The current produce display setup in the trailer works fine, so we addressed ways to stay within the current theme of the display when thinking of what to add. Our designs ideas came from researching how other similar mobile markets display their produce and create an easily navigable space for customers. This was done by looking at the responses on Adair's questionnaire and by looking at websites and images of other mobile markets. Additionally, we took results from Focus Areas A and D to help inform the changes. Specifically, we used waste data and listening session feedback to inform our recommendations.

B: Results and Recommendations

While keeping the basic structure of the current display, we found that there are several add-on options that would enhance both the functionality and appearance of the GFB. There is a full list of pricing for the following options in Appendix III. First, we found that signage could be improved to increase clarity on both what the GFB is and what the GFB is selling. Signs that clarify that the GFB is a mobile market would help attract more customers. A chalkboard inventory that lays out every item that the bus is selling with the help of visual aids would ensure that customers are fully aware of all of their options. Finally, a smaller portable chalkboard could be used to highlight and draw attention to specific items (Table 4).

Additionally, we thought that adding a table to the left side of the trailer to create a semi circle would help more clearly define the shopping space. This could be done with a simple folding table, or more produce specific display tables could be purchased. While these would be outfitted with wheels and might be easier to move, they also would be more expensive. This table would be a good space to display "bruised but beautiful" items as discussed in Focus Area A1.

<table>
<tr><th>Signage 1:</th><th>Signage 2:</th><th>Signage 3:</th></tr>
<tr>
<td>“Shop with us!”

</td>
<td>Chalkboard inventory

</td>
<td>Featured Items

</td>
</tr>
</table>

Table 4. Options and examples for signage for the Good Food Bus.

Hanging baskets and an herb rack would enhance the aesthetic of the bus while displaying items like garlic and herbs in a more efficient way. A hanging basket could be hung in between the two windows do display smaller items like garlic or citrus. Additionally, mason jars with water would be a way of protecting herbs from the heat while displaying them in an appealing way. This rack could hang on the sill of a window or be propped up on a table.

Bigger bins could be used to display seconds (second harvest, similar to gleaned foods, more on this later) in a way that is visually appealing and distinct from the rest of the produce. This would also help shape and define the space that the GFB is using as their marketplace.

Ultimately, we found that the GFB could add display tables around the original display and use other baskets and bins to define the space and increase the aesthetic appeal of the GFB. Overall we focused on facilitating the customer’s experience, and beautifying further the display of produce a to incentive customers to come and shop at the Good Food Bus. Figure 5 is a potential visual of what these changes could look like.

Figure 5. Potential add-ons for the GFB product display. Image courtesy of the Good Food Bus.

<u>Focus Area C: Access and Affordability</u>

This focus area centered around answering the questions; how do the prices on the Good Food Bus compare to local organic prices and other mobile market prices, and how do other mobile markets address the issue of making their food affordable while also reflecting the real cost of food and not undercutting local farmers? Accessibility to a wide range of socioeconomic communities, fairness to local farmers, and affordability to the customer were all taken into consideration when recommending strategies for addressing affordability on the Good Food Bus.

C: Methods

GFB Price Data Comparison

Price data for all fruits, vegetables, herbs and eggs sold on the Good Food Bus was collected from the Farmer's Registry and compiled using Excel. Maine Organic Farmers and Gardeners (MOFGA) price data from their 2017 report was collected from their website and used to represent standard organic pricing in Maine. Price data from Real Food Farm (Baltimore, MD) and Freshest Mobile Market (Oakland, CA) was provided by the employees of the mobile markets on the questionnaire (Appendix IV). It should be noted that food prices vary by state, and it might be a more accurate comparison to compare the GFB to Real Food Farm as opposed to Freshest Mobile Market simply because of geographical differences. In order to create a localized price comparison, price data from Hannaford and Walmart (two places identified in the Listening Sessions as places people in Lewiston-Auburn frequently shop) was collected. It should be noted that these prices were taken in March of 2018 when much of the produce is out of season, while all other prices came from the 2017 growing season (May-October). The prices at these retail locations would presumably be lower in the summer months. Members of the GFB capstone group went to these shopping places and wrote down the prices of produce that is sold both at these retail locations and on the GFB. We only took data on conventional (non-organic) prices, because we made the assumption that people who were shopping at these retail locations were doing so because of the assumed lower prices. All collected data was added to the GFB Excel price data sheet. To make up for inconsistencies in data (ie. GFB sells plantains but MOFGA does not have organic price data for plantains), data was entered by hand. Price data was only compared for products that the GFB sells (ie. if Real Food Farm sells parsnips but the GFB does not, the data would not be included). Some unit conversions were made to homogenize the units of price comparison (changing price per pound to price per pint or vice versa). MOFGA provided different price data from farmers markets, natural food stores and grocery stores. Based on the similarities of the prices, MOFGA data was averaged for ease of comparison. Data was analyzed using JMP software. To create an average price per pound for comparison, all of the price per pound data was averaged. Using data from the Farmer's Registry, the top 10 most profitable GFB items were determined (the top ten highest grossing products). Graphs were created to compare GFB prices to MOFGA, Real Food Farm, Freshest, Hannaford, and Walmart prices for these top 10 items.

Addressing Affordability

The questionnaire we sent to various mobile markets provided information about different mobile markets' strategies for addressing affordability. For this focus area we focused primarily on questions 14, 15, and 16 of the questionnaire which asked about strategies implemented by different mobile markets and the pros/cons of these strategies (Appendix IV). These data will appear in the form of recommendations for Focus Area C.

Information about GFB customers' and Lewiston, Auburn, and Westbrook residents' opinions about different strategies for addressing affordability was provided from the listening sessions. Questions were asked to gauge interest in a potential Membership Program that would offer discounts on produce. These results were compiled in the Listening Session report, and were taken into account in the recommendations for ways the GFB can address affordability (Appendix IV).

C: Results

GFB Price Data Comparison

In general, an analysis of the price data points to three general trends. 1) The GFB is pricing their produce *lower* than average organic prices in the state of Maine. 2) The GFB prices for produce are *comparable* to the prices of another East Coast mobile market. 3) The GFB has *higher* prices for produce than the conventional prices found in Hannaford and Walmart in Lewiston, ME, though GFB prices are more *comparable* to the prices found at Hannaford. These trends were determined from the average price per pound of produce data calculated from the different price data. Figure 6 shows how the Good Food Bus prices compare to standard organic prices in Maine (MOFGA), local supermarket prices (Walmart and Hannaford), and other mobile market prices (Freshest and Real Food Farm).

Figure 6: General trends of average price per pound of all produce under different pricing schemes.

Though this general trend is important in recognizing how the GFB compares to other pricing schemes, prices are always determined on an item-by-item basis. In looking the at the spreadsheet comparing individual GFB prices to the prices for the same products at Walmart, Hannaford, Real Food Farm Mobile Market, Freshest Mobile Market, and the same prices under organic pricing in Maine, most of the products follow the trend outlined above, where the GFB is less expensive than organic pricing but more expensive than the supermarkets (Appendix IV). However, in looking at the top 10 highest grossing items sold on the GFB, not all items follow that general trend. In the case of sweet corn, pickling cucumbers, and zucchini, the GFB has one of the lowest prices, if not the lowest price (Figure 7). For some of the other highest grossing items, the GFB follows the trend outlined above.

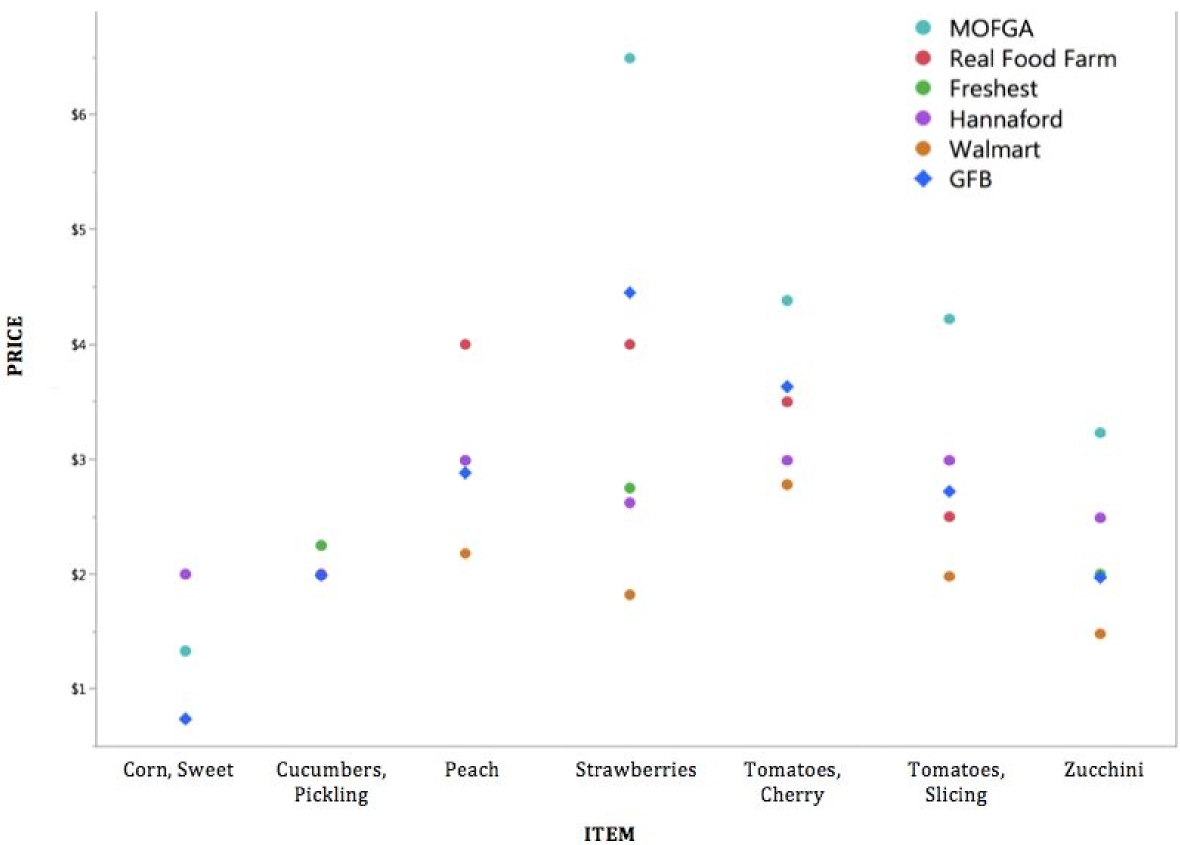


Figure 7: Price comparison of seven of the top 10 highest grossing items for the GFB. Some items excluded because they cannot be classified as produce (i.e. bread, pre-prepared meals) making it difficult to do a price comparison. Blueberries were also excluded from the graph because of the inconsistencies in data.

As shown in the graph, prices vary greatly between items and between different vendors. For a comprehensive spreadsheet showing the price comparisons, see Appendix IV.

Though the GFB is generally more expensive than local options, there are some exceptions to the rule. The following list are all items that are *cheaper* at the GFB as compared to Hannafords.

- Fruit: Watermelon, pears, peaches and oranges.
- Vegetables: Fall squash, green beans, white onion, sugar snap peas, red bell peppers, radish, summer squash, tomatillos, slicing tomatoes, and zucchini.

Similarly the following list are all items that are *cheaper* at the GFB as compared to Walmart.

- Fruit: Watermelon, pears, and oranges.
- Vegetable: Cauliflower, sugar snap peas, green bell peppers, and red bell peppers.

However, it should be noted again that prices fluctuate throughout the season and that these grocery store prices were written down in March of 2018, and the prices will likely be cheaper in the summer.

C: Recommendations

Strategies for Addressing Affordability

From the questionnaire, it was clear that all surveyed mobile markets struggle with addressing the issue of affordability. Also, it should be noted that there is a lot of variance in the goals of different mobile markets, so they implement different strategies for addressing affordability. For example, Freshest Mobile Market (Oakland, CA) has the goal of providing the cheapest possible food to their customers because they recognize that Oakland is a community that is dealing with high levels of food insecurity. They are heavily subsidized, and are often able to sell their products at wholesale price, or at a 10% markup just to cover the cost of waste. As shown in the graphs above, Freshest was consequently often one of the least expensive options, and its prices are on average only $0.11 more expensive than the prices at Walmart. On the other hand, other mobile markets like Real Food Farm are trying to supply neighborhood communities with affordable and local food, and are still trying to reflect the real cost of food in their prices. The GFB is similarly trying to balance affordability with reflecting the real cost of food.

Results compiled from the questionnaire point to four main strategies for addressing affordability. These strategies were recommended by various mobile markets in the questionnaire and are cited following each suggestions (Appendix IV). These suggestions are ordered from most highly recommended to least based on their suitability to the GFBs goals as a program, and their ease in implementing:

1. Cheaper Prices Period: only do a 10% markup from wholesale to just cover cost of waste for produce, which makes the prices as cheap as possible for the customer (Mobile Food Market; My Street Grocery; St. Louis MetroMarket; Freshest Cargo Mobile Market).
2. Sponsored Healthy Eating: taking from the "FreshCash" program, there is the possibility for local healthcare providers to buy gift cards to the mobile market and then distribute the gift cards to community, which subsidizes the cost of food. Incorporating health care providers into the work of mobile markets further highlights how providing healthy, accessible, and affordable food is in many ways a healthcare problem (Fresh Truck).
3. Different Prices at Different Stops: categorize stops into "Business Stops" where the mobile market can provide convenient food at a higher price to the customer and "Neighborhood Stops" where the mobile market can provide affordable food at a lower cost to the customer (Seacoast Eat Local SAMM Van).
4. The More You Shop, the Less you Pay (Membership Program): have frequent shopper discounts which allows the price tag on the food to stay the same, but means the customers don't have to pay the full price at the cash register. This could also take the form of a membership card that gives the customers benefits every time they shop (Real Food Farm Mobile Market).

Though these strategies can act as stand-alone solutions for addressing affordability, we recommend a hybrid of these strategies for the GFB. The idea of a Membership Card (Strategy 4) was well received in many of the Listening Sessions. People at the Listening Sessions said they would be willing to give a name and an email to be able to receive discounts when they shop. The GFB could combine the Membership Program with the strategy of having different prices at different stops (Strategy 3) to have different membership benefits at different stops. The GFB already uses the language of "Business Stops" and "Neighborhood Stops," and they could have larger discounts on food at the Neighborhood Stops. Finally, the GFB could get in contact with local healthcare providers such as St. Mary's Medical Center and Central Maine Medical Center to see if they would be interested in partnering and implementing a "Good Food Cash" program (Strategy 2). The healthcare providers could purchase gift cards to the GFB and distribute the gift cards at community events such as the St. Mary's "Commit to Get Fit 3k, 5k, and 10k Challenge." The GFB is already partially funded by the Harvard Pilgrim Health Insurance company, so this would act as a way to expand healthcare providers' involvement in the project. Together, these strategies would allow the GFB to continue to reflect the real cost of food in their prices, but at the same time allow customers to pay less at the cash register.

Focus Area D: Listening Sessions

This focus area was centered around seeking out, compiling and synthesizing community feedback regarding the functionality and efficacy of the Good Food Bus. A full report from these listening sessions can be found in Appendix V and the major findings and takeaways are outlined below.

D: Methods

Six listening sessions were organized to get direct feedback from target customers in different areas. Some of the sessions were held at places where the GFB has stopped before and is scheduled to stop again (The Hub in Westbrook, The Center for Wisdom's Women in Lewiston) and some of the sessions took place at potential new stops (Raise Op in Lewiston, the Root Cellar in Lewiston). Listening sessions consisted of roughly ten questions and lasted about an hour, and the number of participants ranged from two to thirty people per group, with ages ranging from 10 to 70 years old. The sessions targeted both returning shoppers and people who had never shopped at the GFB before. They were facilitated by GFB staff and recorded by the GFB capstone group. It is important to note that answers of individuals were sometimes influenced by the answers and perceptions of others in the groups, but the facilitation of the session was set up to avoid any such issues. To see the questions asked and a full report of the sessions, see Appendix V.

D: Results and Recommendations

For the most part, past and potential GFB customers are pleased with how things are going and excited for improvements in future years. A few questions at the beginning of the listening sessions went over basic information about what participants want from the GFB, and for the most part their answers confirmed that what the GFB is doing and selling align with their needs. More ideas for change and improvement came with questions regarding programs, discounts, and outreach. Below, sorted by focus area, are key takeaways from these sessions. The fourth "other" category didn't map on cleanly to any focus area because they lie outside the realm of work that we were tasked with, but they still provide important feedback for the GFB team. Finally, there were many discussions on pricing and the inherent cost of locally sourced food. Below we provide suggestions for ways to mitigate these costs, but it is important to note that customers acknowledge this cost and are often understanding of the ramifications of lowering costs too much. Thus, the programs discussed in the paragraph below in Focus Area C and those mentioned above in the section of Focus Area C seek to address these costs while ensuring fair prices for all involved.

Focus Area A: Product Storage and Waste Management

Pre-Order Option

One idea that came up in focus groups was the option of an order-ahead system that allows shoppers to place an order at the beginning of the week and pick it up when the bus stops in their neighborhood. This essentially ensures that the shoppers participating know exactly what they can get ahead of time, thus giving them the consistency of a grocery store experience that comes to them. This program could help enhance the feeling of "food security" in neighborhoods--if they have consistent access to the foods they need and want they can avoid needing to shop at other places. However, this project has the potential to be a lot of work, so it might make sense to test out the program on a few willing and enthusiastic customers before you offer it to everyone.

Stop-Specific Selection

Another finding is that the GFB serves many different types of communities and it might make sense to cater to those communities in different ways. For example, some stops are near grocery stores (Westbrook is a 5 minute walk from Hannaford) and customers at those stops seemed totally uninterested in buying staple foods like rice and pasta at the GFB if they could get it at the grocery store instead. However, several groups in Lewiston expressed interest in the same staple items because of their limited access to stores. This means that depending on the stop, customers are using the GFB for different purposes, and it makes sense to cater to the needs of the specific community when possible. When looking at the options of possible goods, it is important to keep proximity to grocery stores in mind when deciding what items to add for each stop.

Focus Area B: Product Display

Signage On & Around the GFB

There was some confusion about what the GFB actually did to those who had never used it. Some people had seen it but thought it was a mobile food pantry, and others had never seen it at all. Both of these problems could be easily fixed by clearer and more widespread signage on and around the GFB. First, the addition of a sign that clearly indicates that the GFB is a mobile market would add clarity to the purpose of the bus. Second, signs around town and near stops could help advertise in communities that might not know about the GFB. As outlined in Focus Area B, new signage could also enhance the aesthetic appearance of the GFB.

Chalkboard Inventory

Another point of confusion among customers was the inventory of what was actually on the bus. A few times in listening sessions participants asked for specific items only to find out that the GFB sold them--they just didn't know it. This was especially true with items like Hotties and other items that were kept in the freezer or out of site. Additional and more detailed inventory chalkboards would help clarify confusion around what the GFB is actually selling.

Focus Area C: Access and Affordability

Membership Program

The membership program was met with enthusiasm all across the board people seemed excited to join as soon as possible. A system that keeps track of what people are buying and who is coming back from week to week would give the GFB a ton of data on customer habits, and membership discounts would both incentivise shoppers to return to the GFB in addition to making the food more affordable. People liked the idea of having both a physical card and a number or name you could look up, and people said they would be most excited about regular small discounts each time they shop.

½ off Harvest Bucks Option

Another question discussed at the listening sessions was how to most effectively utilise the Harvest Bucks discount. Harvest Bucks are a Maine state sponsored healthy eating initiative. For people purchasing their food with SNAP/EBT, they get a dollar coupon for every dollar that they spend on fresh and local fruits and vegetables. In years past, the GFB has used Harvest Bucks in their traditional form: at the cash register, if a customer bought $5 worth of vegetables, they would get a $5 coupon for their next trip. In listening sessions, participants showed interest in changing that system--instead of getting coupons for next time, some participants would prefer the discount to be applied instantly (paying $2.50 and receiving no coupon). This system allows for shoppers who don't frequent the GFB weekly to still receive the benefits of the Harvest Bucks program, and it also eliminates the chance that customers lose their Harvest Bucks before they can use them. The general consensus from the listening sessions was that the customer should choose their prefered option of an instant discount or coupons for later as they check out at the point of sale.

Selling "Seconds"

The idea of selling seconds (similar to gleaned food; or a "second harvest") came up in a few focus groups and there was a lot of positive momentum behind it. People seemed enthusiastic about the idea of cheaper prices for high quality locally sourced food regardless of how it looks. This would be a relatively easy program to start, but it would have to happen with conversations between the GFB in the farmers providing the seconds to ensure that all parties are supportive of this plan. Additionally, it would be important to keep the seconds in clearly marked bins separate from the normal display to ensure that there is no confusion between the seconds and the regular produce.

Other Findings

<u>New Items</u>

In the listening sessions, customers requested new items that they would like to see on the bus. While some of them were niche and unique to individual shoppers, a few of them were shared by multiple customers (for a full list of requested items, see Appendix V, question 8). The most commonly requested item was honey; it came up at almost every listening session. Pickles and assorted pickled vegetables were frequently requested: this could be something to consider alongside the waste-management practice of value added processing. Additionally, the idea of meat, especially chicken, was pretty popular. Rice and pasta were popular at stops in Lewiston where residents didn't have easy access to grocery stores. Finally, there was a general request for a wider variety of fruits, but that might also be addressed with clearer signage of the daily selection.

<u>Flyers and Ads</u>

As addressed above, it was made clear that the ambiguity around what the GFB is and does had partly to do with a lack of signage and advertisement. Flyers around central areas would help raise awareness in the general public, but fliers in buildings and community spaces would also be helpful in educating people about the GFB. There was a lot of support behind this idea from listening session participants--people seemed eager to spread the word. One customer said "If you give me your flyers I will make sure they get hung up" and many others echoed this sentiment. Additionally, ads in the newspaper and TV could help target new customers that might not otherwise hear about the bus.

Reminder Systems

One reason people said they didn't shop at the bus was because they simply forgot when it came or that it existed at all. This problem would be simply fixed with text or email reminders. Many neighborhoods have community listservs and/or text message alerts, and the GFB could use these platforms to remind people when the GFB comes. This can be organized on a stop-by-stop basis through community organizers. Additionally, items like GFB fridge magnets or reusable shopping bags could help remind people on a daily basis.

TAKEAWAYS AND RECOMMENDATIONS

While this report is full of recommendations and ideas, we have synthesized our core findings into four main takeaways that we hope will help inform future growth of the GFB. First of all, depending on priorities and available funds, there are several options to alleviate food loss and increase efficiency of storage and refrigeration that range from sometime as simple as using ice packs underneath greens and herbs to something as advanced as using solar panels to run a mobile refrigeration unit. Secondly, the fundamentals of the current display are good, but the minor adjustments and additions that we have suggested could better highlight products and improve accessibility and ease of use for the customers while attracting more customers and incentivizing them to shop at the bus. Thirdly, the GFB is doing a good job reflecting the real cost of local food as compared to other mobile markets and local supermarkets, but that in turn makes them somewhat less affordable. There are a variety of strategies for ways to continue to reflect the real cost of food while also making food more affordable for customers, but these should be implemented in accordance with the larger goals of the GFB. Finally, the listening sessions have proved useful in figuring out what customers and community members want. Better advertising of the bus through the addition of signs, and the implementation of a membership program stood out as two improvements that would better incentivise people to shop at the GFB. In conclusion, there is always room for improvement for a project of this caliber, but the GFB is doing a great job acknowledging and navigating the wants and needs the customers, farmers, and organizational partners to which they are accountable.

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APPENDICES

<u>APPENDIX I: Questionnaire</u>

1. Name and location of market?
2. What is the layout for your market (i.e. bus, truck with trailer, etc)?
3. How do you store and refrigerate the food in this system?
4. In this set-up, are you able to keep your mobile refrigeration units running as you drive from market stop to market stop during the course of a day? If so, how?
5. How often do you rotate out produce (i.e. does it stay in the bus/trailer overnight, or is it moved to a seperate refrigeration system)?
6. What mechanisms have you used to reduce food waste from your system (in terms of storage, handling, or display)?
7. Approximately what percent of food is lost in your system?
8. Are there particular products that you have noticed are wasted more? If so, what have you done to alleviate waste of that product?
9. How do you display your product for customers (i.e. indoors vs outdoors, shelving system, through a window vs customers coming onto the bus)?
10. What is the capacity of your product display (i.e. how much and how many different types of produce can be displayed at once)?
11. If you have any photographs or dimensions which would be useful in accompanying the above two questions, please attach them here.
12. What challenges have you addressed in the past in terms of display aesthetics, accessibility, and capacity? How have you addressed those issues?
13. Is the produce you sell local or organic?
14. Do you have a specific target audience for your market, and if so, who?
15. What pricing strategies have you developed to address food affordability for your customers?
16. What has been successful or challenging about those strategies?
17. Do you have any data about price of your products you would be willing to share with us? If so, please attach files below.

Sent to the following Mobile Markets:

- Arcadia Farm (Washington, D.C)
- REC Mobile Farmers Market (Worcester, MA)
- Fresh Truck (Boston, MA)
- Wabash Valley Mobile Market (Union Hospital) (Clinton, IN)
- The People's Grocery (Oakland, CA)
- Chattanooga Mobile Market (Chattanooga, TN)
- Real Food Farm (Baltimore, MD)

- Green Cart (NYC)
- Freshmobile (Madison, WI)
- St. Louis Metro Market (St. Louis, MI)
- Fresh Moves (Chicago, IL)
- Beans & Greens (Kansas City, MO)
- Mobile Food Market (Halifax, Nova Scotia)
- Mill City Grows Mobile Market (Lowell, MA)
- Seacoast Eat Local SAMM Van (Dover, NH)
- My Street Grocery (Portland, OR)
- Freshest Cargo (Bay Area, CA)
- Hartford Food System- The Hartford Mobile Market (Hartford, CT)

Responses Received From:

- Seacoast Eat Local SAMM Van (Dover, NH)
- Mobile Food Market (Halifax, NS, Canada)
- My Street Grocery (Portland, OR) (now closed)
- Fresh Truck (Boston, MA)
- Real Food Farm Mobile Farmers Market (Baltimore, MD)
- St. Louis MetroMarket (St. Louis, MO)
- Freshest Cargo (Bay Area, CA)
- Mill City Grows Mobile Market (Lowell, MA)
- Arcadia (Washington, D.C.) (10 locations)

APPENDIX II: Waste Data Spreadsheet

The following waste data spreadsheet indicates the following information for the 74 products measured for waste management for the 2017 GFB season. More specific calculations can be found in the report under Focus Area A1:

- The percentage loss of the various food loss categories (and the total percent loss).
- The cost of food loss through spoil based on the unit cost of purchasing that item and the unit price if that item would be sold at.
- The cost of food lost from all the food loss categories.
- The popularity of products based on the number of that product which was sold to customers versus the amount of that product which was bought.

The products which are highlighted in red had incongruencies in the data among the two reports. They were edited to present the most likely reality, but may not be fully accurate to their actual food loss.

Product	% Spoiled	% Damaged	% Donated	% Other	Total % Lost	Spoil* Cost	Spoil* Price	All Lost* Cost	Total Lost* Price	Popularity
African Corn	0.00%	0.00%	73.30%	0.00%	73.30%	$0.00	$0.00	$2.20	$16.50	26.70%
Apple, each	0.10%	0.00%	0.00%	0.40%	0.60%	$0.38	$0.65	$1.52	$2.60	99.40%
Basil	25.00%	0.00%	0.00%	0.00%	25.00%	$3.50	$3.68	$3.50	$3.68	100.0%
Beets, bunched	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	100.0%
Beets, loose	7.40%	0.00%	0.00%	0.00%	7.40%	$24.43	$39.37	$24.50	$39.48	77.50%
Blueberries, pint	0.00%	0.00%	0.00%	2.70%	2.70%	$0.00	$0.00	$13.28	$22.10	97.30%
Broccoli	8.70%	0.70%	0.40%	1.60%	11.40%	$37.74	$46.61	$49.60	$61.26	88.60%
Cabbage, green	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	89.30%
Cabbage, purple	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	22.00%
Cantaloupe	12.50%	0.00%	2.90%	0.00%	15.40%	$33.00	$46.08	$40.70	$56.83	84.60%
Carrots	0.00%	0.00%	0.00%	4.00%	4.00%	$0.00	$0.00	$1.50	$3.00	96.00%
Carrots, Loose	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	74.20%
Cauliflower	24.40%	0.00%	13.10%	0.00%	37.50%	$19.54	$27.36	$30.00	$42.00	62.50%
Celery stalks	25.00%	0.00%	2.20%	0.00%	27.20%	$28.10	$27.43	$30.50	$29.77	72.90%
Cilantro	77.30%	9.10%	0.00%	0.00%	86.40%	$30.77	$34.00	$34.39	$38.00	13.60%
Collards	32.60%	0.00%	0.00%	6.50%	39.10%	$27.75	$45.00	$33.30	$54.00	60.90%
Corn, Sweet	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	100.00%
Cucumbers, Pickling	1.30%	0.00%	0.00%	0.00%	1.30%	$11.18	$14.93	$11.18	$14.93	99.00%
Cucumbers, Slicers	12.50%	0.00%	0.00%	0.00%	12.50%	$6.75	$7.47	$6.75	$7.47	87.50%
Eggs	4.40%	0.00%	0.00%	5.60%	10.00%	$14.24	$15.64	$32.04	$35.19	87.70%
Eggplant	21.60%	0.00%	8.80%	0.00%	30.40%	$47.25	$74.25	$66.68	$104.78	69.60%
Eggplant, Japanese	0.00%	0.00%	34.00%	0.00%	34.00%	$0.00	$0.00	$3.40	$4.93	66.00%
Fall squash, variety	1.00%	0.00%	0.00%	0.00%	1.00%	$3.45	$7.47	$3.45	$7.47	74.10%

Garlic	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	53.10%
Garlic Scapes	0.00%	0.00%	0.00%	13.30%	13.30%	$0.00	$0.00	$2.00	$5.92	128.20%
Golden Raisins	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	40.00%
Green Beans	8.40%	0.00%	28.60%	0.00%	37.00%	$28.56	$27.23	$125.98	$120.12	63.00%
Husk Cherries	0.00%	0.00%	0.00%	5.10%	5.10%	$0.00	$0.00	$26.00	$31.92	86.70%
Kale	62.50%	0.00%	0.00%	0.00%	62.50%	$19.10	$30.00	$19.10	$30.00	37.50%
Kohlrabi	11.10%	0.00%	0.00%	0.00%	11.10%	$4.00	$6.00	$4.00	$6.00	88.90%
Lemons	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	88.70%
Lettuce, Head	3.70%	0.00%	0.00%	0.00%	3.70%	$3.70	$5.50	$3.70	$5.50	96.30%
Limes	0.90%	0.00%	0.00%	0.00%	0.90%	$1.64	$2.92	$1.64	$2.92	73.20%
Mango	15.60%	0.00%	0.00%	0.00%	15.60%	$17.40	$23.16	$17.40	$23.16	63.60%
Mushroom	54.70%	0.00%	0.00%	0.00%	54.70%	$22.68	$32.40	$22.68	$32.40	44.60%
Onions, purple	1.40%	0.00%	0.00%	0.00%	1.40%	$1.76	$2.72	$1.76	$2.72	65.40%
Onions, red bunched	0.00%	0.00%	0.00%	20.00%	20.00%	$0.00	$0.00	$1.85	$2.50	80.00%
Onions, white	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	78.10%
Onions, white bunched	0.00%	0.00%	10.00%	0.00%	10.00%	$0.00	$0.00	$3.70	$4.88	90.00%
Oranges	0.00%	0.00%	0.00%	7.20%	7.20%	$0.00	$0.00	$12.59	$18.70	85.70%
Peach	1.30%	0.00%	0.00%	0.00%	1.30%	$5.15	$7.20	$5.15	$7.20	98.70%
Pears	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	44.00%
Peas, Sugar Snap	0.00%	0.00%	70.00%	0.00%	70.00%	$0.00	$0.00	$58.80	$35.87	30.00%
Peppers, Cherry Bomb	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	100.00%
Peppers, Green Bell	1.40%	0.00%	0.00%	16.20%	17.50%	$10.58	$8.78	$134.06	$111.26	61.90%
Peppers, Jalapeños	46.10%	0.00%	0.00%	0.00%	46.10%	$26.40	$35.11	$26.40	$35.11	53.90%
Peppers, Poblano	29.10%	0.00%	0.00%	0.00%	29.10%	$15.90	$20.56	$15.90	$20.56	71.40%
Peppers, Red Bell	1.60%	0.00%	0.00%	0.00%	1.60%	$5.20	$7.54	$5.20	$7.54	66.10%
Peppers, Shishito	8.30%	0.00%	0.00%	0.00%	8.30%	$3.00	$8.85	$3.00	$8.85	27.80%

Plantain	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	66.70%
Plum	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	97.90%
Potatoes	0.40%	0.00%	0.00%	0.00%	0.40%	$1.04	$2.16	$1.04	$2.16	66.90%
Pumpkin (large carving)	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	50.00%
Pumpkin (small)	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	48.60%
Radish	12.30%	0.00%	0.00%	2.10%	14.40%	$22.50	$29.85	$26.25	$34.83	85.60%
Raisins	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	36.70%
Raspberries	11.20%	0.00%	0.00%	12.10%	23.30%	$26.59	$31.85	$55.22	$66.15	76.70%
Salad Mix	14.60%	0.00%	0.00%	0.00%	14.60%	$19.50	$23.27	$19.50	$23.27	85.40%
Scallions	0.00%	0.00%	29.50%	0.00%	29.50%	$0.00	$0.00	$84.73	$59.08	70.60%
Shiitake Mushrooms	50.00%	0.00%	0.00%	0.00%	50.00%	$6.00	$4.00	$6.00	$4.00	50.00%
Spinach	8.60%	0.00%	0.00%	9.70%	18.30%	$53.31	$57.22	$194.25	$208.50	70.00%
Strawberries - Pint	3.60%	0.00%	0.00%	3.70%	7.30%	$25.38	$41.83	$51.03	$84.11	92.70%
Summer Squash	12.70%	0.00%	0.00%	0.00%	12.70%	$30.78	$40.49	$30.78	$40.49	87.30%
Sweet Potato	0.00%	0.00%	0.00%	0.20%	0.20%	$0.00	$0.00	$0.16	$0.21	66.70%
Swiss Chard	50.00%	0.00%	0.00%	0.00%	50.00%	$19.40	$28.50	$19.40	$28.50	50.00%
Tomatillos	28.60%	0.00%	0.00%	0.00%	28.60%	$20.00	$23.20	$19.40	$22.50	72.30%
Tomatoes, Box	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	100.00%
Tomatoes, cherry	2.70%	0.00%	0.60%	0.00%	3.30%	$12.20	$16.34	$14.91	$19.97	96.70%
Tomatoes, paste	61.00%	0.00%	0.00%	0.00%	61.00%	$12.20	$13.12	$12.20	$13.12	39.00%
Tomatoes, slicing	4.10%	0.00%	0.00%	19.30%	23.40%	$55.51	$98.68	$314.87	$559.78	74.00%
Turnip	0.00%	0.00%	0.00%	0.00%	0.00%	$0.00	$0.00	$0.00	$0.00	53.30%
Turnips, Hakurei	10.00%	0.00%	10.00%	0.00%	20.00%	$1.75	$2.81	$3.50	$5.62	80.00%
Watermelon	0.00%	0.00%	2.40%	0.00%	2.40%	$0.00	$0.00	$6.96	$9.30	97.60%
Zucchini	5.10%	0.00%	0.00%	0.00%	5.10%	$29.86	$37.23	$29.86	$37.23	94.90%

APPENDIX III: Product Display

Potential options for add-ons to improve the Product Display. Options are listed with prices and stores or websites at which they could be bought.

Add-on 1:	**Add on 2:**	**Add on 3:**	**Add on 4:**
Produce Tables	Hanging Baskets	Herb Rack	"Seconds" Bin
 Home Depot, $40   DGS Retail, $329 ShopPOPdisplays, $195	 Ebay, $17	 Walmart, $9 for 12   Home Depot, $1 per clamp	 All Store Displays, $115 per basket  Walmart, $12 per crate

APPENDIX IV: Price Comparison Spreadsheet

For this spreadsheet, "GFB" indicates prices from the Good Food Bus 2017 year, taken from the Farmer's Registry. "MOFGA" indicates calculated average organic prices in Maine from the 2017 growing season. "Real Food Farm" indicates prices from the Real Food Farm Mobile Market in Baltimore, MD as provided in the questionnaire. The data is from the 2017 season. "Freshest" indicates prices from the Freshest Mobile Market in Oakland, CA as provided in the questionnaire. The data is from the 2017 season. "Hannaford" indicates prices from the Hannaford in Lewiston, ME in March of 2018. "Walmart" indicates prices from the Walmart in Auburn, ME in March of 2018. Items are grouped by "fruit," "vegetable," "eggs," and "herbs." GFB prices highlighted in green indicates when the GFB has the cheapest prices (or they are within 5% of the cheapest price). GFB prices highlighted in yellow indicates when the GFB prices fit the general trend outlined in the report (more expensive than local supermarkets, less expensive than organic). GFB prices highlighted in red indicates when the GFB prices are the most expensive prices (or they are within 5% of the most expensive price). For this comparison, only the MOFGA, Walmart, and Hannaford prices were taken into consideration to create a localized price comparison for the GFB to show its Maine customers.

Item	Unit	GFB	MOFGA	Real Food Farm	Freshest	Hannaford	Walmart
FRUIT							
Apple	lb	$2.60	$3.04	$2.00	$1.70	$2.25	$2.32
Blueberries	pint	$4.91	$10.64	$4.00		$3.99	$3.14
Cantaloupe	each	$3.84		$3.50		$2.00	$2.88
Golden Raisins	each	$1.89					
Husk Cherries	pint	$3.99	$5.00				
Lemons	each	$0.75			$1.50	$0.69	$0.50
Limes	each	$0.73				$0.50	$0.38
Mango	each	$1.93					$1.08
Oranges	each	$0.49			$1.50	$0.79	$0.68
Peach	lb	$2.88	$2.99	$4.00		$2.99	$2.18
Pears	lb	$1.44	$2.99	$4.00	$1.50	$1.79	$1.47
Plantain	each	$0.99				$0.59	$0.58
Plum	lb	$5.58	$2.99	$4.00		$2.49	$2.18
Raisins	each	$1.91					
Raspberries	pint	$4.90				$7.98	$5.94
Strawberries	pint	$4.45	$6.49	$4.00	$2.75	$2.62	$1.82
Watermelon	each	$4.65		$3.50		$6.99	$5.50
VEGETABLES							
African Corn	each	$0.75					
Beets, bunched	each	$3.00	$3.28	$3.00	$2.00	$2.99	$2.38
Beets, loose	lb	$2.82	$2.80	$6.00	$2.00		
Broccoli	lb	$2.47	$4.35	$6.00	$2.00	$1.99	$1.33
Cabbage, green	lb	$1.43	$2.29	$2.00	$1.30	$0.49	$0.78
Cabbage, purple	lb	$1.25	$2.37	$2.00	$1.50	$0.49	$0.88
Carrots, Loose	lb	$2.26	$2.86	$2.00	$1.30	$0.99	$0.67
Cauliflower	lb	$2.80	$4.00	$3.00	$2.00	$1.99	$2.97
Celery stalks	each	$2.44	$3.05		$2.25	$2.49	$1.88
Collards	bunch	$3.00	$3.00	$2.50	$1.75	$1.99	$0.98

Corn, Sweet	each	$0.74	$1.33			$2.00	
Cucumbers, Pickling	lb	$1.99		$2.00	$2.25	$1.99	
Cucumbers, Slicers	each	$0.83	$2.49			$0.79	$0.68
Eggplant	lb	$2.75	$4.12	$3.00	$2.00	$2.79	$1.78
Fall squash, variety	lb	$1.41	$1.71			$1.59	$1.18
Garlic	lb	$7.60		$12.00	$6.00	$6.34	$3.98
Garlic Scapes	lb	$2.96	$2.99	$3.00			
Green Beans	lb	$2.46	$5.15		$2.00	$2.49	$1.98
Kale	bunch	$3.00	$2.93	$2.50	$1.75	$2.49	$0.98
Kohlrabi	each	$3.00	$3.00	$2.50	$6.00		
Lettuce, Head	each	$2.75	$2.92	$1.50	$1.25	$1.99	$1.64
Mushroom	lb	$4.00			$3.00	$3.33	$3.16
Onions, purple	lb	$1.70	$2.21	$2.50	$1.00	$1.49	$1.38
Onions, white	lb	$1.52	$1.98	$2.50	$1.00	$1.99	$1.48
Peas, Sugar Snap	lb	$1.83				$5.99	$4.84
Peppers, Cherry Bomb	lb	$4.00	$4.75				
Peppers, Green Bell	lb	$2.44	$3.93	$3.00		$2.49	$2.64
Peppers, Jalapeños	lb	$3.99	$7.99	$5.00		$2.69	$1.88
Peppers, Poblano	lb	$3.88		$5.00			$2.68
Peppers, Red Bell	lb	$2.90		$4.00		$2.99	$3.00
Peppers, Shishito	pint	$2.95	$4.00	$5.00			
Potatoes	lb	$1.80	$1.83	$2.00	$1.50	$0.99	$0.68
Pumpkin (large carving)	each	$11.20					
Pumpkin (small)	each	$3.03					

Radish	bunch	$1.99	$2.92	$2.50	$2.50	$2.49	
Salad Mix	lb	$7.16	$10.21	$6.00	$2.00		$4.78
Scallions	bunch	$1.29	$2.96	$2.00	$1.75		
Shiitake Mushrooms	lb	$8.00					
Spinach	lb	$6.44	$9.25	$6.00		$5.99	$2.94
Summer Squash	lb	$1.96	$3.64	$3.00		$2.49	$1.48
Sweet Potato	lb	$2.10	$2.55	$2.00	$1.75	$0.99	$0.98
Swiss Chard	bunch	$2.85	$2.83	$3.00	$1.75	$2.49	
Tomatillos	lb	$2.32	$7.49	$5.00		$2.99	$1.98
Tomatoes, Box	each	$28.00					
Tomatoes, cherry	pint	$3.63	$4.38	$3.50		$2.99	$2.78
Tomatoes, paste	lb	$2.15				$1.99	$1.68
Tomatoes, slicing	lb	$2.72	$4.22	$2.50		$2.99	$1.98
Turnip	lb	$2.04	$2.88	$2.50	$1.75	$0.99	$1.58
Zucchini	lb	$1.97	$3.23		$2.00	$2.49	$1.48
EGGS							
Eggs	dozen	$4.00		$3.00		$1.99	$1.97
HERBS							
Basil	bunch	$1.84					$1.98
Cilantro	bunch	$2.00				$1.29	$0.98

<u>APPENDIX V: Listening Sessions Report</u>

This report was made to be a stand-alone report as requested by the GFB team. Thus, some of the information on this document is also found in the report.

Good Food Bus Listening Sessions: A Synthesis of Customer and Community Feedback
March 2018

In the winter and spring of 2018, an Environmental Studies Capstone group from Bates College (Adair, Joakim, Josie, and Nell) worked to improve the efficacy of The Good Food Bus (GFB), a mobile-market run through the St. Mary's Nutrition Center in Lewiston, Maine. A big part of improving the GFB involved getting direct feedback from community members and listening to what customers want and how the GFB can better meet that. Six listening sessions were organized to get direct feedback from target customers in different areas. Some of the sessions were held at places where the GFB has stopped before and is scheduled to stop again (The Hub in Westbrook, The Center for Wisdom's Women in Lewiston) and some of the sessions took place at potential new stops (Raise Op in Lewiston, the Root Cellar in Lewiston).

Listening sessions consisted of roughly ten questions and lasted about an hour, and the number of participants ranged between 10 to 70 years old and two and thirty people per group. The sessions targeted both returning shoppers and people who had never shopped at the GFB before. They were facilitated by GFB staff (Kathleen, Price and Sherie) and recorded by the GFB capstone group. It is important to note that answers of individuals were sometimes influenced by the answers and perceptions of others in the groups, but the facilitation of the session was set up to avoid any such issues.

1. Do you cook/like to cook for yourself or others? If so, what do you like to make?

Some people loved to cook, and some people said they cooked once or twice a year. Most people that enjoyed cooking liked to make things that were easy like chicken, fish, pasta, rice, crockpot meals, soups, sauces and casseroles. People also seemed excited and eager to learn how to cook new foods or styles of cooking like making mexican food, thai food or using new ingredients like plantains. Many people also noted that it is very difficult to cook with picky eaters in the house and that limited how much and what they were able to cook.

2. Do you eat fresh, frozen or canned food?

Most people eat a variety of fresh, frozen and canned food. People bought fresh bananas, apples, oranges, spinach, onions, grapes and herbs. Commonly purchased frozen food consisted of frozen fruit for smoothies, spinach, brussel sprouts, corn and carrots. People mainly buy canned food because it doesn't spoil and it stores well, and common canned foods are green beans, tomatoes (for sauce) and pineapple. People have their own shopping rules ("we never buy anything frozen" or "always fresh or frozen but never canned") but most people seem to be buying a mixture of all three. One shopper said that they prefer fresh food but they "don't have a car so it's hard to have easy access to fresh food" and many others echoed this sentiment: when they can only get to the grocery store once every week or once every two weeks, it can be hard to keep fresh food without it spoiling.

3. What fruits and vegetables do you eat the most? Do you eat enough of both?

The most common fruits that people said they ate were bananas, oranges, apples, grapes, strawberries, mangoes, pomegranates, pineapples, tangerines, and melons. In terms of vegetables, people eat carrots, green beans, greens (collards, beet greens, spinach), potatoes, tomatoes, squash, corn, peas, onions, avocado, and broccoli. About half the people said they eat enough fruits and veggies, and about half the people said they don't eat enough fruits and veggies. Often, those who said they ate enough fruits and vegetables also mainly ate fresh vegetables.

4. Where do you shop for groceries?

Most people shopped at the nearest and cheapest grocery store. Almost all customers at the Hub in Westbrook went to Hannafords because they were within walking distance and didn't have access to cars. In Lewiston, where grocery stores are fewer and far between, shoppers went to Hannafords, Shaws, Walmart, Save-A-Lot, B.J.'s, Blackies and sometimes the Farmer's Markets. Some people bought most of their food at Walmart but would "never buy fresh produce there" while others never have problems with the veggies at Walmart. People at the Lewiston focus groups tended to be more excited about the idea of buying staples (rice, pasta, spices) at the GFB because it could save them a trip to the store. Customers in Westbrook with easy access to Hannafords seemed uninterested in buying staples from the GFB because they would be able to get the same foods for cheaper prices at hannafords.

5. Have you heard of the GFB before? How?

Most people had heard of the GFB through a person or organization, some people had seen it, and some people hadn't heard of it at all. Advertisements such as flyers and bulletins seemed like the most effective strategies for raising awareness. People also mentioned hearing about it through Facebook and in the newspaper AD.

Some people who had seen it before had confusion about what it was: they thought it was a mobile food pantry and were unaware of who it served. People also mentioned that they would have shopped there if they had known the schedule.

6. Are the times and location convenient?

A lot of people recommend a stop in Kennedy Park to make it more visible in the community. People at the Root Cellar and Raise Op said they would most likely shop if there was a stop at the Root Cellar in the morning. Some people said if it came closer to them they would be more likely to stop and shop. People think that they would be more likely to go if they had reminders: either emails from community organizers, text reminders, facebook posts, GFB fridge magnets, or shopping bags. Some people mentioned that because the stops were short if they had a meeting they would miss the whole stop for that week, and that maybe spanning two hours would make it more accessible.

7. Did you/would you buy anchor meals?

Most people either liked using them or liked the idea of buying them. Some people pointed out that it caters more to families than to individuals or picky eaters. One user commented that they "would be great for someone who doesn't know how to cook to learn to cook”. Other people said they “would buy it again depending on how interesting the ingredients are”. Someone else said that they “wouldn’t buy it unless it’s like a hamburger helper”.

Generally, people were more interested in purchasing them if it entailed cooking something that they wouldn’t otherwise know how to make--there was interest in mexican, thai and indian dishes at a few of the focus groups. Along with that, people said they would be more likely to buy an anchor meal if they are familiar with the dish and ingredients (i.e. not a dish they had never heard of). A few people, especially from single occupant households, thought that the price was too high, and others thought that it seemed fair.

8. Are there products we don’t sell that you wish we did?

There were many ideas for what people would like to see on the bus, and while a few of them were more unique, most of them were shared by multiple customers. Here are the major requests sorted by category, with the most popular and requested items at the top of the list. It should be noted that in most cases people who were interested in staple items like pasta, rice and spices did not have easy access to grocery stores.

Grains/Starch	**Vegetables & Fruits**	**Animal Products**	**Other**
Whole wheat pasta	Grapes	Honey	Pickles
Brown rice	Collard greens	Meat	Herb plants/starts
White rice	More fruit options	Kosher/halaal meat	Ready-to-go salads
Bread	Colored peppers	Cheese	Spice/oil starter kits
Beans	Avocados	Eggs	Popsicles
	Garlic	Butter	

9. Would you be interested in more pre-made food?

Premade foods were only discussed at a few listening sessions, but there was some interest in items like frozen soups and premade salads. Some people thought that it would be too expensive, so price point would probably be a big decision making factor in popularity. Because there is limited data on interest for pre-made food, it might be a good idea to start small with one or two trial items.

10. Do you know about Maine Harvest Bucks? Would you like ½ off discount or MHB coupons?

Almost all shoppers knew about harvest bucks and used them when the could. Many people mentioned that they still have Harvest Bucks left over from last year at their house, indicating that it might not be the most efficient and effective system. When offered the option of an instant ½ off option, many people were very enthusiastic. The general consensus is that customers should have the option at the register to choose either the ½ discount or the coupons-for-later discount.

11. Would you be interested in a membership program?

There was a lot of popularity around the idea of having a membership card. Having a number or name that you could look up from the register would eliminate the chances of someone forgetting their physical card. However, some people liked the idea of having a physical card--so maybe the best option would to give people a membership card when they join and then have the ability to look them up by name or number when they come to visit. People seemed more interested in smaller discounts each time they shop instead of larger discounts only a few times.

12. Would you be interested in buying "seconds"?

There was a lot of enthusiasm around seconds. People seemed willing and eager to buy food if it was cheaper regardless of what it looked like. There was a lot of positive support around this!

Takeaways

For the most part, past and potential GFB customers are pleased with how things are going and excited for improvements in future years. A few questions at the beginning of the listening sessions went over basic information about participants, and there were few answers or ideas that pointed in new directions: for the most part, the first few questions confirmed that what the GFB is doing and selling align with what customers want. More ideas for change and improvement came with questions regarding programs, discounts and outreach. Below, sorted by focus area, are key takeaways from these sessions. The category "other" didn't map on cleanly to any focus area because they lie outside the realm of work that we were tasked with, but they still provide important feedback for the GFB team. Finally, there were many discussions on pricing and the inherent cost of locally sourced food. Below we provide suggestions for ways to mitigate these costs, but it is important to note that customers acknowledge this cost and are often understanding of the ramifications of lowering costs too much. Thus, the programs discussed in the paragraph below in Focus Area C and those mentioned above in the section of Focus Area C seek to address these costs while ensuring a fair prices for all involved.

Focus Area A: Product Storage and Waste Management

Pre-Order Option

One idea that came up in focus groups was the option of an order-ahead system that allows shoppers to place an order at the beginning of the week and pick it up when the bus stops in their neighborhood. This essentially ensures that the shoppers participating know exactly what they can get ahead of time, thus giving them the consistency of a grocery store experience that comes to them. This program could help enhance the feeling of "food security" in neighborhoods--if they have consistent access to the foods they need and want they can avoid needing to shop at other places. However, this project has the potential to be a lot of work, so it might make sense to test out the program on a few willing and enthusiastic customers before you offer it to everyone.

Stop-Specific Selection

Another finding is that the GFB serves many different types of communities and it might make sense to cater to those communities in different ways. For example, some stops are near grocery stores (Westbrook is a 5 minute walk from Hannaford) and customers at those stops seemed totally uninterested in buying staple foods like rice and pasta at the GFB if they could get it at the grocery store instead. However, several groups in Lewiston expressed interest in the same staple items because of their limited access to stores. This means that depending on the stop, customers are using the GFB for different purposes, and it makes sense to cater to the needs of the specific community when possible. When looking at the options of possible goods, it is important to keep proximity to grocery stores in mind when deciding what items to add for each stop.

Focus Area B: Product Display

Signage On & Around the GFB

There was some confusion about what the GFB actually did to those who had never used it. Some people had seen it but thought it was a mobile food pantry, and others had never seen it at all. Both of these problems could be easily fixed by clearer and more widespread signage on and around the GFB. First, the addition of a sign that clearly indicates that the GFB is a mobile market would add clarity to the purpose of the bus. Second, signs around town and near stops could help advertise in communities that might not know about the GFB. As outlined in Focus Area B, new signage could also enhance the aesthetic appearance of the GFB.

Chalkboard Inventory

Another point of confusion among customers was the inventory of what was actually on the bus. A few times in listening sessions participants asked for specific items only to find out that the GFB sold them--they just didn't know it. This was especially true with items like Hotties and other items that were kept in the freezer or out of site. Additional and more detailed inventory chalkboards would help clarify confusion around what the GFB is actually selling.

Focus Area C: Access and Affordability

Membership Program

The membership program was met with enthusiasm all across the board people seemed excited to join as soon as possible. A system that keeps track of what people are buying and who is coming back from week to week would give the GFB a ton of data on customer habits, and membership discounts would both incentivise shoppers to return to the GFB in addition to making the food more affordable. People liked the idea of having both a physical card and a number or name you could look up, and people said they would be most excited about regular small discounts each time they shop.

½ off Harvest Bucks Option

Another question discussed at the listening sessions was how to most effectively utilise the Harvest Bucks discount. Harvest Bucks are a Maine state sponsored healthy eating initiative. For people purchasing their food with SNAP/EBT, they get a dollar coupon for every dollar that they spend on fresh and local fruits and vegetables. In years past, the GFB has used Harvest Bucks in their traditional form: at the cash register, if a customer bought $5 worth of vegetables, they would get a $5 coupon for their next trip. In listening sessions, participants showed interest in changing that system--instead of getting coupons for next time, some participants would prefer the discount to be applied instantly (paying $2.50 and receiving no coupon). This system allows for shoppers who don't frequent the GFB weekly to still receive the benefits of the Harvest Bucks program, and it also eliminates the chance that customers lose their Harvest Bucks before they can use them. The general consensus from the listening sessions was that the customer should choose their prefered option of an instant discount or coupons for later as they check out at the point of sale.

Selling "Seconds"

The idea of selling seconds (similar to gleaned food; or a "second harvest") came up in a few focus groups and there was a lot of positive momentum behind it. People seemed enthusiastic about the idea of cheaper prices for high quality locally sourced food regardless of how it looks. This would be a relatively easy program to start, but it would have to happen with conversations between the GFB in the farmers providing the seconds to ensure that all parties are supportive of this plan. Additionally, it would be important to keep the seconds in clearly marked bins separate from the normal display to ensure that there is no confusion between the seconds and the regular produce.

Other Findings

New Items

In the listening sessions, customers requested new items that they would like to see on the bus. While some of them were niche and unique to individual shoppers, a few of them were shared by multiple customers (for a full list of requested items, see question 8). The most commonly requested item was honey; it came up at almost every listening session. Pickles and assorted pickled vegetables were frequently requested: this could be something to consider alongside the waste-management practice of value added processing. Additionally, the idea of meat, especially chicken, was pretty popular. Rice and pasta were popular at stops in Lewiston where residents didn't have easy access to grocery stores. Finally, there was a general request for a wider variety of fruits, but that might also be addressed with clearer signage of the daily selection.

Flyers and Ads

As addressed above, it was made clear that the ambiguity around what the GFB is and does had partly to do with a lack of signage and advertisement. Flyers around central areas would help raise awareness in the general public, but fliers in buildings and community spaces would also be helpful in educating people about the GFB. There was a lot of support behind this idea from listening session participants--people seemed eager to spread the word. One customer said "If you give me your flyers I will make sure they get hung up" and many others echoed this sentiment. Additionally, ads in the newspaper and TV could help target new customers that might not otherwise hear about the bus.

Reminder Systems

One reason people said they didn't shop at the bus was because they simply forgot when it came or that it existed at all. This problem would be simply fixed with text or email reminders. Many neighborhoods have community listservs and/or text message alerts, and the GFB could use these platforms to remind people when the GFB comes. This can be organized on a stop-by-stop basis through community organizers. Additionally, items like GFB fridge magnets or reusable shopping bags could help remind people on a daily basis.