

**Measuring Effects of Mobile Markets on Healthy Food Choices**  
**Report of Focus Group Results**  
**Gorge Grown Mobile Market, Stevenson, WA**  
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**Project Overview**

To expand marketing of agricultural products, the US Department of Agriculture (USDA) Agricultural Marketing Service (AMS) funds mobile produce markets in low-income food deserts where access to fresh produce is limited. The purpose of this research project is to (1) understand who does and who does not use mobile markets and why and (2) investigate whether mobile produce markets facilitate healthy food choices in those communities, and if so, how. The focus group study involves four sites served by USDA AMS funded mobile produce markets. At each site, two focus groups are conducted: one with food shoppers who use the mobile markets and one with those who do not. The research questions include: why do people use or not use the mobile market? What factors facilitate or impede use? How does the presence of a mobile food market affect food access and choices? Are there spillover effects on food choices at other venues?

**Study Site at Stevenson, Washington**

Gorge Grown Food Network (Gorge Grown) is a non-profit organization operating in the Columbia River Gorge of Oregon and Washington to promote local, sustainable and healthy food availability in the region. While agricultural production is an important activity in the Columbia River Gorge area, parts of the region are considered rural food deserts because of the lack of access to retail outlets with fresh food in the region's small towns. One of Gorge Grown's projects to promote access to local fresh foods in these communities is a mobile farmers' market operating from July through October. In 2012, the mobile market visited four farmers' markets weekly: Stevenson, Lyle, Maupin and Mosier Markets. Gorge Grown's mobile market serves as an anchor vendor for these farmers' markets by administering, organizing and publicizing the market, providing a variety of produce to attract customers, supplementing what farmer vendors have for sale, selling produce on consignment for farmers, and facilitating access to produce by accepting SNAP and farmers' market coupons.

The farmers' market in Stevenson is located on the sidewalk in front of city hall on the main street through town on Saturday mornings where it is clearly visible to anybody driving or walking through town. While the Gorge Grown mobile market truck is featured prominently in front of the market, neither those who shop at the market nor those who do not distinguished between Gorge Grown's mobile market and the farmers' market. Gorge Grown has a table with a tent for the produce they source from local farmers. The farmers' market has a table for consignment, and there are approximately a half dozen other vendors selling produce, some specialty canned goods (jams, relishes), and one stand sells jewelry.

## **Focus Group Recruitment and Process**

It should be noted that given their small size, focus groups are not representative of the larger population; they do however provide in-depth perspectives of individuals. In addition, they allow probing answers and asking follow-up questions. Participants for the study were recruited for two focus groups: first group included participants who shop at the Stevenson farmers' market and the second one included those who do not. The shoppers were recruited over a period of beginning two weeks prior to the focus group using flyers at the Gorge Grown mobile market stand, local coffee shop and personal recruitment by the researchers at the market. Non-shoppers were recruited using an advertisement in the local newspaper, a flyer in the local grocery store and flyers distributed at a local senior center.

The focus groups were conducted in a community center on September 29 and 30, 2012 at 1pm. Given the timing, a lunch was provided. Prior to commencing the focus group, a researcher went over informed consent and asked for permission to record the session and quote participants anonymously. Participants were also to fill out a short survey on demographics and shopping habits in their household. A graduate assistant took notes so that the transcribed recordings could be annotated. A representative of the USDA AMS observed the focus groups.

Focus group participants were asked to describe a typical meal, their meal preparation goals, where they shopped and in particular where they shopped for produce. The rest of the focus group questions concerned the mobile food market, however, the respondents answered the questions as though they were about the farmers' market since they did not distinguish between the mobile market and the rest of the vendors at the farmers' market. Participants who shopped at the farmers' market (shoppers) were asked about their experiences: when and how they heard about the market, how often they shopped there and what they bought, whether these foods were available to them elsewhere, whether their meals or food choices elsewhere had changed since shopping there and how, what improvements they would recommend, the reputation of the market, and recommendations to encourage others to use it, as well as to eat more produce. Participants who did not shop there (non-shoppers) were asked what they knew about the market, whether the location and timing was convenient for them, why they did not shop there, the reputation of the market, suggestions for encouraging people to shop there and to eat more produce. The recordings of the two focus groups were professionally transcribed, checked for accuracy by the researcher and graduate student, and annotated. All names were replaced with numbers to protect the participants' anonymity.

## **Focus Group Results**

### *Comparison of Shoppers and Non-shoppers*

Ten participants were included in the group of shoppers and eight in non-shoppers. In general, shoppers seemed more affluent than the non-shoppers. In fact, many non-shoppers indicated that they 'count their pennies' (W17). This is despite the fact that there was no difference between the groups in the number of people who use the SNAP card: 3 shoppers and 2 non-shoppers use it to purchase their food. So while there were similar numbers of people at lower incomes between the two groups, there were more high-income people among the shoppers. In other words, the range in incomes was greater for the shopper group.

The non-shoppers were significantly more likely to be overweight, obese or have a chronic condition associated with diet such as heart disease or type II diabetes (the means were 0.40 versus 0.88;  $P=0.0417$ ). Vegetables appeared really important to all of the “shoppers,” when describing their typical dinner, vegetables were very prominent. Only 5 out of 8 non-shoppers mentioned they ate vegetables for dinner. In general, shoppers ate significantly more servings of fruits and vegetables per day than non-shoppers (6 vs. 3.3 servings;  $P>0.05$ ).

Interestingly, not all shoppers liked to cook: only six said they liked to cook, three indicated sometimes, and one did not enjoy cooking at all. All but one non-shopper said they liked to cook. There was no significant difference between the two groups in how often they bought groceries; the mean shopping trips in a two-week period were 4.3 and 3.5 for shoppers and non-shoppers respectively. While not significant, the non-shoppers lived closer than the shopper group to grocery stores (4.9 versus 8.4 minutes) and the market (6.5 versus 9.9 minutes).

Among the shopper group, three were employed and one of these was also a student. Among the non-shopper group, there were no students and only one person was employed. With regards to household composition, there is a statistically significant difference in the number of people in the participants’ household. In the shoppers group, the average household had 2.5 adults, in the non-shoppers group it is only 1.5 adults ( $P=0.0298$ ). This is consistent with findings by Zepeda and Li (2006) in a national study that the presence of another adult was significantly correlated with local food purchase. This correlation may be related to the labor demands of meal preparation, or it may be that the presence of an additional adult serves as an appreciate audience for meals prepared with local foods. None of the shoppers lived with children (below 18 years of age), while only one non-shopper had a child.

#### *Shoppers Focus Group Results*

Out of the ten shoppers, nine have their own garden, while one used to have a garden. In terms of their food goals, they mentioned: nutrition, not eating processed food, being satisfied, flavor, using what was in their garden, time and health.

When asked about their shopping habits, the shoppers talked about getting their produce from the farmer’s market, co-ops (meat, raw milk), and at a local food store or local chain. Only two participants indicated they sometimes shop at a national supermarket chain. In addition, two participants had a CSA membership.

All of the shoppers indicated extremely positive attitudes towards the farmers’ market: it inspired them and helped them get the fruits and vegetables they did not have. They also viewed it as a way to support local farmers and their community. In general, they valued the farmers’ market, saw it as a place to meet their friends, and a way to support their community.

In terms recommendations, most (7) would like to see more variety of vendors. Half wanted a vendor who sold meat or fish, two would like to see more dairy products, two would like local wine or beer local vendors, and two would appreciate if it were one-stop shopping.

They would also enjoy demonstrations and recipes. Suggestions included giving out recipes, cooking demonstrations, and featuring the vegetable of the week.

When asked about how they viewed the farmers' market, half thought that it was seen by others as expensive, although they did not consider it to be expensive themselves. Four suggested there might be issues with timing and would like to see expanded hours and days of operation. Six proposed that advertising might bring in more people. Three would like to see some sort of education because they believed education would make more people eat fruits and vegetables. None of the participants indicated that they would prefer a change of location. There were no negative comments about the quality or quantity of produce.

#### *Non-Shoppers Focus Group Results*

A total of eight non-shoppers participated in the second focus group. Most seemed to be cognizant that they were not eating enough produce; six felt they did not eat enough fruits and vegetables and would enjoy eating more. The reasons given for not eating enough produce were: price, preferences, eating other foods, and not being able to eat fruits because of diabetes. Two participants indicated that eating more fruits and vegetables would make them feel better.

Their goals in food preparation were somewhat more utilitarian than shoppers. Their objectives when preparing meals were to use what they had in their refrigerator, to satisfy cravings, to fill up, to avoid aggravating their diabetes or to cook for a child.

The non-shoppers bought their produce at a local chain store (in Hood River), at national chain stores and several participants said they bought their produce at Wal-mart (either in Hood River or Portland, OR). Two participants mentioned a local store, but this was often associated with urgency (i.e. they were missing one ingredient) and they expressed outrage at the store's prices.

The biggest obstacle in bringing them to the farmers' market was their view that it is unwelcoming. Many mentioned it was elitist, there was an uninviting in-group, or that it catered mostly to tourists. Most did not perceive the farmers at the market as part of their community, however, one participant did mention that she knew one of the vendors who depended upon sales "to get through the winter."

While they had many recommendations, it is not clear from their other comments whether making these changes would encourage them to shop at the farmers' market. All eight mentioned changing the location. They did not like the current location due to crowdedness, problems with parking, no place to sit, and fear of cars hitting pedestrians. After some discussion, they reached a consensus that they thought the park by the river bank would be a better location. This would reduce visibility, but they felt it could be compensated by having signs.

Even though they did not shop there, six mentioned the market was too expensive. Most of them also mentioned driving to Hood River and or Portland to shop for their groceries – completely ignoring the price of gas.

Again, despite not shopping there, all of them indicated that there was not enough variety of produce. Some of them said they never saw any produce there and two said the produce they saw did not look as good as they would expect from a farmers' market, and several were upset about non-food items being sold, such as jewelry and flowers. They seemed to be searching for reasons not to shop there.

When asked about how to bring more people to the farmers' market, several indicated that they forgot about the market and needed some reminder: five suggest advertising, two suggested using the newspaper, two suggested signs because they felt it was difficult to see, three indicated they would like to see signs that announced that the market takes SNAP because they did not know about that. It is important to note that the only reason the Stevenson farmers' market has SNAP available is because of Gorge Grown. The process is too cumbersome for most rural markets in Washington state to qualify. Only two were unhappy with the time and wanted longer hours or more days. Three people would like to see more vendors, this followed from comments about 'not enough produce,' four specifically said they would like it to be 'one-stop' shopping, though it is unclear that they would be willing to pay for things like grass fed beef. Two participants would like recipes to know what to do with the produce.

It is not clear that any of these non-shopper recommendations would actually bring these participants to the market, given their perceptions about the market being expensive and elitist. Seeing the market, the farmers, and the people who shop there as part of their community seems to be the biggest hurdle. Outreach targeted to put a local face on the producers, shoppers, and market could help change these attitudes. Another hurdle is changing eating habits to eat more produce and less meat and processed foods. The latter may be due to habits and preferences but also may reflect lack of skills or knowledge about how to prepare produce. Food demonstrations and education may help and these are things that the shoppers also would like to see.

## **Conclusions**

These results pertain to a small sample and therefore cannot be generalized to the population. However, among this small group of participants there were significant differences between those who shop at the mobile farmers' market and those who do not in terms of eating habits and diet related health issues. Shoppers at the mobile farmers' market also bought from other vendors at the farmers' market. These shoppers ate nearly twice as many servings of fruits and vegetables per day and half the incidence of food related illnesses. Fruits and vegetables were a prominent part of their meals and buying locally was a key shopping strategy. In contrast, those who did not shop at the mobile market tended to travel farther to buy from national chains.

The shoppers had nothing but good things to say about the farmers' market, while the non-shoppers seemed to make a lot of negative assumptions about it. Both groups did perceive the farmers' market as being viewed as elitist and neither group distinguished between the mobile farmers' market and the other vendors. Most of the non-shoppers did not perceive the farmers or shoppers at the market to be part of their community. One strategy to address this might be an outreach campaign featuring vendors and customers as neighbors. Emphasizing the variety of produce and affordability, especially the acceptance of SNAP at the Gorge Grown Mobile Market, could help overcome some of the non-shoppers attitudes. A bigger hurdle is likely to be trying to change non-shoppers eating habits to encourage consumption of produce. Providing

recipes and cooking demonstrations, along with information about the health benefits of eating more produce may help, but it is notoriously difficult for people to change their eating habits. Again, personal stories featuring neighbors might be used to show how changing eating habits can yield health benefits. For example, a “Gorge Grown challenge” might be to ask people with food related health problems to eat local and tell their story. Many of the suggestions regarding improvements have to do with advertisement and greater variety of products. While the non-shoppers recommended moving the market, the downside of course is that it would be less visible, while it was not clear that moving the market would indeed cause them to go, given their other concerns.