Introduction

GrowNYC’s Greenmarket program operates under a two-part mission: to promote regional agriculture by connecting local farmers directly with consumers, and to ensure access to fresh, locally grown produce for all residents of New York City. Now in its 36th year, Greenmarket operates 54 farmers markets around the city with over 230 participating farmers and fishermen in the Northeast region.

To increase the access of low-income New Yorkers to fresh, seasonal produce, Greenmarket accepts food stamps, also known as Electronic Benefits Transfer (EBT), at 90% of our markets. During peak season, the NYC Department of Health and Mental Hygiene also provide Health Bucks for use at Greenmarkets and other farmers markets. The Bucks are worth $2 each, and for every $5 customers spend in EBT at market they receive one Health Buck, which may be spent on fruits and vegetables at any farmers market in the city. This 40% increase in purchasing power for food stamp recipients has been critical to the success of Greenmarket’s EBT program and increases access to and consumption of fresh, local produce by lower income individuals. In addition to EBT and Health Bucks, other federal benefits such as Farmers Market Nutrition Program (FMNP) checks and Women Infants Children (WIC) Vegetable and Fruit Checks are accepted by many participating farmers. FMNP checks are $4 checks distributed annually at senior centers and WIC centers serving low-income populations. The checks may be used to purchase fruits and vegetables at farmers markets during peak season. WIC Vegetable and Fruit Checks come in $6, $10, and $15 increments and are part of a monthly supplement given to WIC participants to aid in the purchase of healthy foods by low-income women who are pregnant, nursing, or have children under five years of age.
Starting in the summer of 2009, WIC Vegetable and Fruit checks were accepted at farmers markets in New York State. However, although $33 million in WIC checks is distributed annually in the state, only a small fraction of them are redeemed at farmers markets. To this end, in 2010 Greenmarket partnered with the Wholesome Wave Foundation as part of their Double Value Coupon Program (DVCP), which provides incentives encouraging customers to use federal nutrition benefits at farmers markets. For the past two years, with funding from the DVCP, Greenmarket has implemented an incentive program at select markets focusing on increasing awareness of acceptance of WIC Vegetable and Fruits Checks at market. Wholesome Wave partners are asked to conduct at-market surveys to assess demographics and other customer characteristics. This is the second consecutive year that Greenmarket has performed this survey and, as in 2011, the survey was expanded to eight additional markets not participating in the incentive program to allow Greenmarket to learn more about its customers.

This report is mainly a summary of survey results from the eight additional markets that Greenmarket chose to survey. However, a brief comparison to data from markets implementing the WIC+ for Fruits and Vegetables incentive funded by Wholesome Wave is provided. For further information on Wholesome Wave’s findings from the Double Value Coupon Program, please visit http://wholesomewave.org/dvcp/.

Study Purpose and Objectives

The 2012 Greenmarket Customer Survey was based on Wholesome Wave’s survey used to assess farmers markets implementing DVCP incentive programs. Wholesome Wave’s mission involves improving access to and affordability of fresh, local produce to underserved neighborhoods. As such, markets targeted by the DVCP tend to serve customers of lower incomes with higher rates of federal nutrition benefit usage. Greenmarket’s 2012 WIC incentive, entitled WIC+ for Fruits and Vegetables, was implemented at six such markets. Greenmarket also expanded the Wholesome Wave survey and conducted it at a non-random sample of eight additional markets that were chosen to provide a more comprehensive picture of Greenmarket customers.

The purpose of this survey was to assess a range of Greenmarket customers regarding demographics; usage of federal and other benefits at markets; what customers value most about Greenmarkets; and perceived changes in fruit and vegetable consumption due to Greenmarkets. These questions allow Greenmarket to determine why customers shop at Greenmarket, how much and what they spend, and how Greenmarket might better tailor programming to market customers.

### Breakdown of surveys by market

<table>
<thead>
<tr>
<th>Market Name</th>
<th>Survey Count</th>
<th>Survey Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brooklyn Borough Hall</td>
<td>92</td>
<td>18%</td>
</tr>
<tr>
<td>Bowling Green</td>
<td>58</td>
<td>12%</td>
</tr>
<tr>
<td>Dag Hammarskjold Plaza</td>
<td>76</td>
<td>15%</td>
</tr>
<tr>
<td>Mount Sinai</td>
<td>120</td>
<td>24%</td>
</tr>
<tr>
<td>Parkchester</td>
<td>30</td>
<td>6%</td>
</tr>
<tr>
<td>PATH</td>
<td>34</td>
<td>7%</td>
</tr>
<tr>
<td>Sunnyside</td>
<td>45</td>
<td>9%</td>
</tr>
<tr>
<td>Tribeca</td>
<td>40</td>
<td>8%</td>
</tr>
</tbody>
</table>

Total: 495 (100%)

### Markets With WIC+ Incentive
- Bronx Borough Hall, The Bronx
- Sunset Park Brooklyn
- Bronx Borough Hall, The Bronx
- Astoria, Queens
- Corona, Queens
- Elmhurst, Queens

### Markets Without WIC+ Incentive
- Brooklyn Boro Hall, Brooklyn
- Bowling Green, Manhattan
- Dag Hammarskjold, Manhattan
- PATH, Manhattan
- Tribeca, Manhattan
- Mount Sinai, Manhattan
- Parkchester, The Bronx
- Sunnyside, Queens
Study Design and Methodology

The 18-question customer survey was administered at eight markets during peak hours throughout the month of August 2012. Greenmarket interns conducting the surveys attempted to select customers at random to participate in the survey. No incentive was given, and no customer took the survey more than once. Those participating had the option of filling out the survey themselves or having it read to them. A total of 495 surveys were conducted with options in English, Spanish and Chinese. Data from the survey was then entered into Excel and analyzed.

Summary of Survey Results

Results presented below are for the eight Greenmarkets not involved in the WIC+ for Fruits and Vegetables program. However, for comparison, a brief section on notable differences between WIC+ and non-WIC+ markets is provided at the end of the analysis.

Frequency of Market Visits
Over half (55%) of Greenmarket shoppers surveyed reported shopping three times or more per month at their market, while 14% reported shopping at market for the first time on the day of the survey. Twenty-five percent of those surveyed reported coming 1-2 times per month, while only 6% of shoppers came less than once per month.

Federal Benefits
Overall, 57% of shoppers surveyed in the eight markets recognized that their markets accept food stamps, while 43% did not know this. A majority of respondents (62%) realized this by passing by the market or living nearby, while most others were notified by WIC centers (10%) or word of mouth (10%).

How important is the quality of fresh fruits and vegetables in your decision to come to this farmers market?

- Very Important: 95%
- Moderately Important: 4%
- Slightly Important or Not At All Important: 1%

Very Important 95%
Moderately Important 4%
Slightly Important or Not At All Important 1%
Seventeen percent of those surveyed received some kind of federal benefit. Of those, 50% received food stamps, 14% received Farmers Market Nutrition Program checks, and 36% received WIC Vegetable and Fruit checks. Markets with the most respondents receiving federal benefits included Parkchester (67% of respondents), Sunnyside (24%), Brooklyn Borough Hall (22%), and Mount Sinai (18%), with the other five markets reporting less than 10% of respondents receiving federal benefits.

Economic Influence
Among those surveyed, 422 shoppers reported spending an average of $22.46 on a typical day at market using cash, debit, or credit; 14 shoppers reported spending an average of $16.27 using Health Bucks on a typical day; and 54 shoppers reported spending an average of $20.13 using food stamps, WIC checks or FMNP checks on a typical day. When asked if they had plans to spend money elsewhere in the neighborhood that same day, 53% of shoppers said “yes” and indicated that they planned to spend an average of $33.47 in the area. In this way, it is likely that Greenmarkets provide an economic stimulus to local communities.

Food Access
In the eight markets surveyed, 23% of respondents found it difficult or very difficult to buy quality produce in their neighborhoods outside of Greenmarket, while 58% found it easy or very easy. Specific markets reporting higher rates of difficulty accessing fruits and vegetables outside of Greenmarket included three Manhattan markets: Bowling Green (41% finding it difficult or very difficult), Dag Hammarskjold Plaza (38% finding it difficult or very difficult), and Tribeca (32% finding it difficult or very difficult).

When asked whether, as a result of shopping at the farmers market, it was easier to buy fruits and vegetables, an overwhelming majority of respondents, 88%, either agreed or strongly agreed. This is an indicator of Greenmarket’s effectiveness in improving food access in all neighborhoods.

Perceived Changes in Fruit/Vegetable Consumption
Thirty-four percent of those surveyed reported buying most or almost all of their produce at market in peak season, with the rest of participants purchasing half or less of their produce at market. Twenty-nine percent and 32% of participants said the amount and variety of produce consumed increased greatly this past season as a result of shopping at their Greenmarket.

Importance of Greenmarket
A series of questions was asked in order to assess what Greenmarket customers value most about markets. Nearly all respondents (95%) reported that the quality of produce is very important in their decision to come to market. A majority (82%) also reported that the selection of produce was very important. When asked how important it is that markets accept food stamps and FMNP checks, 32% of participants stated this was very important in their decision. And while 55% of those surveyed reported that it is not at all important that markets accept food stamps and FMNP, many wrote in clarification on the survey that, while markets accepting food stamps and FMNP had no personal bearing, they still appreciated the fact that markets do accept these benefits.
A majority of customers (75%) noted that supporting local farmers and businesses is a very important factor in their decision to come to market, while 60% noted that taking part in the community is very important to them. Thirty-four percent found market activities and events very important while 44% reported price as being very important in their decision to come to market. Of the eight markets surveyed, three had response rates of 50% or greater when customers were asked whether price was “very important” in their decision to shop at the market. These markets were PATH (50%), Mt. Sinai (57%), and Parkchester (68%).

Demographics
Of those surveyed in the eight markets, 71% were female and 29% were male. The average age of respondents was 45 years old, though average age varied by market with four markets showing average ages in the 30’s and four showing average ages in the 40’s. Sunnyside had the lowest average age at 33 years, while Dag Hammarskjold Plaza market had the highest average age at 48 years. On average, households had 1.9 children ages 18 or younger and 2 adults greater than 18 years of age. A majority of respondents (47%) identified as white or Caucasian, with 18% identifying as Hispanic or Latino and 17% identifying as black. Seventy-eight percent of respondents reported speaking English at home, 15% speak Spanish, 3% speak Mandarin or Cantonese, and 3% speak Russian. Regarding language choice for the survey, 86% of respondents took the surveys in English, while 14% took the surveys in Spanish.

Most respondents reported either walking (73%) or taking the subway (16%) to market. Survey participants were from a total of 164 zipcodes with concentrations in 10013 (Tribeca, Manhattan), 10017 (Midtown East, Manhattan), 10022 (Upper East Side, Manhattan), 11104 (Sunnyside, Queens), 11201 (Downtown Brooklyn, Brooklyn) and a majority of participants, greater than 8%, in 10029 (East Harlem, Manhattan). Thirty-eight percent of respondents read The New York Times, followed by The Metro (14%) and Daily News (13%).

Comparison to Markets Implementing WIC+ For Fruits and Vegetables
Surveys collected at markets implementing WIC+ for Fruits and Vegetables were analyzed by Wholesome Wave as part of their Double Value Coupon Program. Surveys were only administered to customers participating in the WIC+ program and no one could take the surveys more than once. One hundred surveys were collected at these markets. Overall, findings were similar to Greenmarket’s results from the general customer survey, with some notable differences. Relevant finding are summarized here, with the six markets in the incentive program referred to as “WIC+ markets,” and the eight general markets referred to as “non-WIC+ markets.”

Survey participants at the WIC+ markets were more aware that markets accept food stamps, with 87% reporting that they had knowledge of this. Rates of participants receiving specific types of federal benefits were similar to the non-WIC+ markets, with 54% receiving food stamps, and 11% receiving FMNP. A far larger portion of those at WIC+ markets, 54%, received WIC Vegetable and Fruit Checks.
Regarding potential economic influence, only 35% of those participating at WIC+ markets reported planning to spend additional money in the area that day, as opposed to 53% at non-WIC+ markets. However, the amount participants planned to spend was similar at $30.75.

Ease or difficulty in accessing fruits and vegetables outside Greenmarket were similar in WIC+ and non-WIC+ markets, with 18% of participants in WIC+ markets reporting it difficult or very difficult, and 67% reporting it easy or very easy. When asked whether, as a result of shopping at the farmers market, it was easier to buy fruits and vegetables, an overwhelming majority of respondents, 99% of WIC+ participants, either agreed or strongly agreed.

Greenmarket’s effect on food access is especially apparent when comparing the percentage of customers who buy most or almost all of their fruits and vegetables from the market during peak season. Sixty-eight percent of participants at WIC+ markets—double the number of those in non-WIC+ markets—bought most or almost all of their produce at market during peak season in 2012. There is also a striking difference when comparing perceived changes in the amount and variety of produce consumed due to shopping at Greenmarket. Numbers at WIC+ markets were 57% and 68% for these measures, respectively—again, essentially double the rates reported at non-WIC+ markets. This speaks to the importance of Greenmarkets in providing an outlet to increase accessibility and consumption of fresh produce in lower-income neighborhoods where many people rely on federal nutrition benefits.

Overall, customer values as to why Greenmarket is important were similar across all markets surveyed. For WIC+ markets, quality and selection of produce were deemed “very important” by 99% and 95% of participants, respectively. Eighty-nine percent cited both supporting local farmers and businesses and taking part in the community as very important to them, while 80% and 69%, respectively, noted that market activities and price were very important in making the decision to come to market. One area in which there was a notable difference was the importance of Greenmarket accepting food stamps and FMNP checks at market, which 94% of those at WIC+ markets noted as “very important.”

As opposed to less than half of the non-WIC+ markets, all six of the WIC+ markets had response rates greater than 50% for the option stating that price was “very important” in their decision to come to market: Boro Park (50%), Elmhurst (52%), Sunset Park (66%), Corona (74%), Astoria (89%), and Bronx Boro Hall (100%). It is significant that at many markets—especially those serving lower-income populations—customers found price to be important in their decision to shop at market, as it is often cited that fresh, local produce is too expensive to afford and therefore inaccessible to people at all income levels. However, according to both surveys, many Greenmarket customers find prices reasonable and an incentive to shop at market.

Lastly, demographics of those participating at WIC+ markets were different compared to non-WIC+ markets. All respondents who identified their gender in the WIC+ surveys reported being female. Average age of participants was 33 years. Households had more children under 18 years of age, 2.6 on average, than the non-WIC+ markets, and a similar
number of adults, 2.3 on average, greater than 18 years of age. In contrast to the eight non-WIC+ markets surveyed, 80% of those at WIC+ markets identified as Hispanic, while 7% and 3% identified as White or Caucasian and black, respectively. These demographics closely represent those of WIC participants in New York City.

Limitations

Due to constraints of time and resources, surveys were conducted at only eight Greenmarkets, and these markets were not randomly chosen. As a result, the data presented from this survey is not representative of all Greenmarkets. In addition, market-specific data that was presented is also likely not representative, due to the small sample sizes of surveys taken at each market.

Survey administrators were encouraged to select people at random to take the survey, however, selection bias is unavoidable in these situations. As such, the method of selecting customers makes it difficult to generalize results to all market-goers.

There were also issues inherent in conducting the survey. Due to the survey’s length, some customers chose not to finish the surveys, and other skipped questions completely. The language spoken by survey administrators also likely affected responses. Similarly, while surveys were available in English, Spanish and Chinese, customers speaking other languages were unable to take the survey and are not represented by the resultant data.

Conclusion

Overall, results from the 2012 survey indicate that these eight Greenmarkets are regularly attended and provide an important arena for the purchase of fresh fruits and vegetables. Most customers buy much of their produce at market during peak season, and also report that markets make buying these foods easier. A vast majority of customers are satisfied with both the quality and selection of produce and report that their consumption of fruits and vegetables increases as a result of the availability of Greenmarkets.

Many shoppers surveyed were aware that markets accept food stamps, and many customers spent not only cash at markets but also federal and state benefits. In addition, many shoppers reported planning to spend additional money in the area immediately surrounding their market, indicating that supporting local farmers and businesses was important in making their decision to come to market. These last two points speak to the fact that even in its 36th year of operation, the Greenmarket program has remained true to its original mission.