

2015 Final Report The Foundation for Sustainability and Innovation Submitted by City Growers

City Growers is a non-profit organization that provides education programs for children and young adults on 2.5 acres of rooftop farmland run by the nationally acclaimed Brooklyn Grange in Queens and Brooklyn. To many young people in New York City, "the environment" is not an urban phenomenon, but rather one that exists outside city limits and is not related to their lives whatsoever. Too few young residents understand where resources like water, electricity, and food come from, or where they go once discarded, as modern life's conveniences obscure the origins and endpoints of each. City Growers use urban agriculture to teach young people about where their food comes from and why it matters. Our programs allow students to experience the beauty and complexity of the natural world and to explore innovative solutions to modern problems affecting our city and its inhabitants such as green roof systems and urban beekeeping. Our inquiry-based, hands-on programs give young people a new perspective on what is possible in their neighborhoods and provides an exciting alternative to what they might have imaged for themselves and their city.

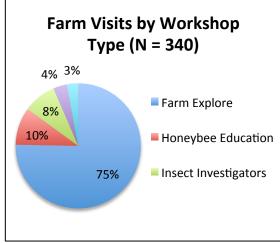
The \$4,000 grant from the Foundation for Sustainability and Innovation subsidized workshops for students in Title 1 schools ages 4 through 18 from all five boroughs of New York City. From April through November 2015, 7,873 young people participated in 340 workshops; this represents a 20% increase in total participants and a 21% increase of total workshops delivered compared to the 2014 season. Because we offer multi-visit workshops, our total number of participants includes individuals who visit the farm multiple times. Of our total visitors, 7,233 of them are considered "unique visitors;" a 53% increase from the 2014 season.

Program Overview

During New York City's growing season from April through November, City Growers offered two principal types of programming. First, our three distinct 90-minute workshops, Farm Explore, Insect

Investigators and Honeybee Education, teach about urban agriculture, nutrition, ecology, green infrastructure, and life cycles through inquiry-based educational activities. Second, our two, four-week, multi-visit programs, Growing Urban Farmers and Rainbow on Your Plate, allow students to witness the natural cycles that occur over time, care for plants from seed to harvest, and develop a relationship with the farm and its diverse team of urban farmers.

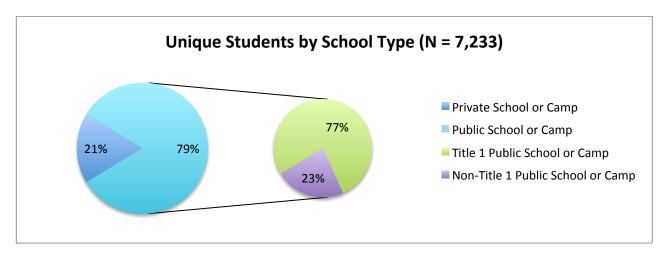
Farm Explore is by far our most popular workshop representing 75% of all workshops delivered in 2015. The graph to the right shows the percentage of total workshops completed for each of our educational offerings.



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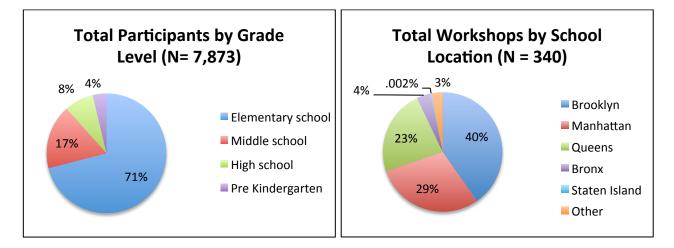


Since City Growers' inception in 2011, the majority of students who participate in our workshops have been students from Title 1 schools (schools were at least 60% of the children qualify for free or reduced price lunch); 2015 was no different. Seventy-nine percent of all the children who attended our 2015 workshops were enrolled in public schools or public summer camp programs. Of the 5,679 public school children, 77% come from Title 1 schools or summer camps.



Participants were split amongst four different age groups, pre-kindergarten, elementary, middle, and high school students. As in previous years, the majority of City Growers participants are elementary school children. In 2015, 71% of all participants were elementary school children.

The majority of City Growers' participants come from Brooklyn (40%) with Manhattan and Queens not far behind. We also had numerous school groups from other parts of the country and world partake in our workshops including groups from Vermont, California, Arizona and France. The graphs below show the breakdown of participants by grade level and the breakdown of workshops by school location.



Impacts

2015 was the first year that City Growers systematically collected data from students and teachers. In this first year, we were able to collect data from 54% of all students who participated in our one-time



and multi-visit workshops (n = 3,913). A third of all educators (33%) who brought groups to the farms responded to our online survey (n = 102).

Overall, educators were very satisfied with their visit to the farm; 83% reported that they were "totally satisfied" with their experience and the same percentage reported that their trip was "totally

enjoyable." In fact, 95% of all the educators surveyed said they would recommend a City Growers farm visit to colleagues and 85% said they would book another visit to City Growers next season or school year. Three quarters of respondents (74%) agreed that they would build on what they learned at the farm by creating a related classroom lesson. These lesson extensions greatly increase City Growers' reach and depth of impact.



During our workshops, students planted 2,060 fruit, vegetable, and flower seeds, increasing the number of oxygen producing plants across the city and increasing the number of pollinator pathways for honeybees, which are instrumental in sustaining a healthy ecosystem, and vital for the production of food.

Impacts on youth

Nearly all of the educators who responded to the survey (97%) reported that their students learned something new during their visit. More specifically, educators highlighted the value of City Growers' workshops for our unique location, our high quality and timely content, and our engaging approach to teaching and learning. The teacher quotes below exemplify some of the feedback we received.

"City Growers provided excellent instruction for students of all academic levels on what grows, and how it grows on the Brooklyn Grange. Each station the students attended kept them interested and active. The hands on activities such as tasting and smelling the different crops provided maximum sensory stimulation for students who are cognitively impaired."—District 75 (special education) high school teacher, Queens



"We were very satisfied with the workshop. Students had an opportunity to ask questions, touch the worms, pet and feed the chickens, and taste the vegetables. My class was so excited that they were talking about the field-trip all the way back to school." -2^{nd} grade charter school teacher, Queens

"It was a great experience. Most of my students come from Mexico, Yemen, Ukraine and Bangladesh so this opportunity was really exciting for them. Most never leave the city and have never been to a farm." -3^{rd} grade Title 1 school teacher, Brooklyn

"The information students receive from the workshop is totally educational and beneficial for their future environmental decisions and contributions."—Summer camp counselor, Manhattan

Students surveyed also had positive experiences on the farm as they engaged in new activities, tried new foods, and learned about urban agriculture. Among students who were asked the question, 20%



said that it was their first time visiting a farm (though this number would likely be higher had data been collected from all single-visit workshop students) (n = 703). Nearly two thirds of the students asked (63%), said that, while on the farm, they tried a new fruit or vegetable (n = 1,913).

Students also shared that they would engage in various new behaviors as a result of visiting the farm. Among students who were asked, 28% said that since participating in a City Growers workshop, they would be more likely to try a new fruit or vegetable (n = 696). Among the students who participated in a multi-visit summer workshop series sponsored by the New York City Department of Youth and Community Development (DYCD) there was an increase of students who reported being interested in growing plants and composting at home. After participating in City Growers workshops, 74% said they were interested in growing plants at home and 53% said they were interested in composting at home, an increase of 12 percentage points on both items from the pre-survey. In their own words, students wrote, "I can make a plant box at home and plant flowers and veggies and fruits," and "I have a garden at home and maybe now I will make a compost pile." Similarly, half of the 4th grade students who participated in a Growing Urban Farmers multi-visit workshop (10 out of 20) indicated that after participating in City Growers programming, they were going to start composting.



Our honeybees were also very popular among visiting students. A third of students who were asked said that during their visit they saw a beehive for the first time (35%). When asked to write down one thing



learned during the farm workshops, 50% of multi-visit workshop participants wrote something about bees, honey, or pollination. Of participants who were asked to indicate what they liked most about their visit, 34% wrote down something about bees or honey. Among the students who participated in the DYCD sponsored multi-visit summer workshops, 87% agreed or strongly agreed that they know why bees are important for growing food, an increase of 15 percentage points from before the workshops. When asked what they would do differently as a result of doing the program, 27% of DYCD participants wrote about bees, such as, "I'm not going to be afraid of bees anymore. They help out the environment," and "Keep bees alive to make honey."

These data show that City Growers' programming is providing new and exciting hands-on, educational experiences for urban youth. Though

we currently do not have the capacity to track participants' behavior once they leave the farms, these data and quotations from educators indicate that City Growers' programming is not only impacting New York City student's current attitudes and beliefs about food, farming, and the environment, but that our programs have the capacity to influence children's choices around food consumption, waste management, and environmental stewardship in the future. It is because of support from organizations like the Foundation for Sustainability and Innovation that City Growers is able to continue to provide our high-quality educational programs to deserving youth from in New York City.