New Study Finds NYC Green Carts Expanding Access to Fresh Produce in Low-Income Neighborhoods and Influencing Customer Behavior

Columbia SIPA researchers also find Green Carts are creating economically viable small business opportunities for immigrant entrepreneurs, recognize important role of philanthropy in promoting and supporting innovative public policy.

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NEW YORK, June 11, 2014—New York City’s Green Cart initiative (Green Carts) has increased access to healthy food in otherwise underserved high-density and low-income neighborhoods, influenced customers’ consumption of fruits and vegetables, and created jobs for immigrant entrepreneurs, according to researchers at Columbia University’s School of International and Public Affairs (SIPA). The researchers suggest the program can and should be replicated in urban areas across the country.

The NYC Green Cart initiative is a street-vending strategy that aims to change the NYC food landscape, expand economic opportunity, and promote healthy behavior by increasing the availability of fresh produce in areas where access is limited. The initiative was introduced in 2008 by the Mayor’s Office of Food Policy and the New York City Department of Health and Mental Hygiene (DOHMH) in partnership with the Laurie M. Tisch Illumination Fund. Green Carts is part of a broader City strategy to confront the epidemic levels of diet-related disease in New York City’s low-income communities.

The study—led by Ester R. Fuchs, a professor of international and public affairs and political science at Columbia SIPA, and Sarah Holloway, a lecturer in international and public affairs at Columbia SIPA—was conducted to analyze the effectiveness of Green Carts in improving access to fresh fruits and vegetables for low-income New Yorkers, to assess the economic viability of Green Carts as small businesses, and to consider the role of philanthropy in promoting and supporting innovative public policy. Key findings of the report indicate that the NYC Green Cart initiative is:

• **Increasing access to fresh produce in targeted neighborhoods** with a reported 166 Green Carts operating across four boroughs during peak vending season (July-October 2013)

• **Reaching the low-income populations in neighborhoods exhibiting characteristics associated with “food deserts”**
  o Green Carts are all located in neighborhoods with high rates of diet-related diseases and high rates of poverty.
  o According to a spatial analysis, most Green Carts are located in areas with relatively low produce store density, indicating that Green Carts is achieving its goal of reaching communities with unmet needs.
  o Regardless of where the cart is located, in the core or periphery of the designated area, Green Carts is reaching a low-income population.
    ▪ 68 percent of customers earn less than approximately 200 percent of the federal poverty level.
- 50 percent of customers are “always” or “sometimes” worried about having enough money to buy fresh fruits and vegetables.
- 92 percent said that location and prices are two main reasons for shopping at a Green Cart.

- **Changing customer behavior**, with customers reporting regular visits and increased consumption of fresh fruits and vegetables
  - 71 percent of customers surveyed reported increased consumption of fresh fruits and vegetables since shopping at a Green Cart.
  - 63 percent of customers are “regulars” (at least once a week).

- **Providing entrepreneurial opportunities** to vendors and is economically viable in the long-term
  - 80 percent of vendors consider themselves “very profitable” or “somewhat profitable.”
  - 50 percent of vendors have been vending more than two years.
  - 75 percent of vendors believe their experience running a Green Cart will help them open a larger business.
  - At least 88 percent of the vendors are foreign-born, with Bangladesh, the Dominican Republic and Mexico being the most frequent countries of origin.

“This evaluation represents the first comprehensive review of the Green Carts program after six years in operation,” Fuchs said. “This innovative program is a success for both the vendors and the customers. It’s a net gain for public health and a model program for densely populated urban areas elsewhere in the United States.”

The report also identifies elements of the Green Carts policy implementation model that are key to the program’s success, including:

- public-private partnership
- philanthropy that promotes and supports policy innovation
- support for innovation from City Hall
- involvement of a city agency with the sustained interest and capacity to implement an innovative program
- technical assistance for vendors
- program promotion, including a Green Carts branding campaign

“In addition to its direct benefit to New Yorkers, Green Carts demonstrates how philanthropic organizations can play a constructive role in promoting and supporting innovative public policy,” said Laurie M. Tisch, president and founder of the Illumination Fund. “As a program model and as a partnership, Green Carts can serve as a model for other cities that face similar issues.”

Commissioner of the Department of Health and Mental Hygiene Mary Bassett said, “To improve the health of New Yorkers, we need to increase the availability of healthier foods while reducing the barrage of unhealthy foods. In neighborhoods where fresh produce is scarce, Green Carts help to ensure that fruits and vegetables are available and affordable for residents. I thank the Laurie M. Tisch Illumination Fund for its commitment to finding innovative ways to bring healthier options to New Yorkers, including underserved neighborhoods.”
The NYC Green Cart initiative has achieved unprecedented success, but the report also identifies several opportunities to enhance the program:

- Green Carts are not distributed evenly throughout all high-need targeted areas. Some neighborhoods have an abundance of carts, while some have none. The market-based approach, allowing vendors to locate anywhere within the designated zone, does not evenly distribute vendors across the designated high-need areas.
- Green Carts are located close to public housing in only one borough. This suggests that there may be more opportunities to reach high-need populations.
- There is an inadequate tracking system for operational Green Carts; there is no way to identify exact vendor locations or which vendors are actually operating their carts. A significant number of permits that are considered “active” are not being used. This has major consequences because the City Council law enabling Green Carts “caps” the number of permits per borough, and new permits are not available for boroughs exceeding those caps.

To address these and other issues, the report makes a number of policy and operational recommendations that would ensure the long-term success of the program. Among other things, it calls for additional market analysis, efforts to ensure utilization of permits, economic incentives for vendors to locate in the heart of “food deserts,” targeted technical assistance for vendor needs, and enhanced vendor product offerings to include other healthy food items.

**About the NYC Green Cart Initiative**

The NYC Green Cart Initiative was introduced in 2008 by the Mayor’s Office of Food Policy and the New York City Department of Health and Mental Hygiene in partnership with the Laurie M. Tisch Illumination Fund. Green Carts is part of a broader citywide food access strategy developed to improve public health outcomes for low-income New Yorkers by increasing the availability of fresh produce in so-called “food deserts”—areas where access to fresh food outlets is limited and where consumption of fruits and vegetables is particularly low.

Green Carts was developed based on research that has consistently shown a significant relationship between the retail food environment, individual consumption of fruits and vegetables in a particular geographic area, and rates of obesity and diet-related diseases. The goal of placing Green Carts in these neighborhoods was to increase the number of points of purchase for fruits and vegetables and, in turn, increase individual consumption.

**About the Study**

In mid-2013, the Laurie M. Tisch Illumination Fund engaged faculty at Columbia SIPA to independently analyze the effectiveness of Green Carts in improving access to fresh fruits and vegetables for low-income New Yorkers; assess the economic viability of Green Carts as small businesses; and consider the role of philanthropy in promoting and supporting innovative public policy.

Led by Professors Fuchs and Holloway, the research team developed a conceptual model and research plan to determine whether Green Carts was meeting its goals. The research team developed its own evaluation model and research design and collected extensive primary data on neighborhood characteristics, vendor locations and business practices, and customer behavior. An 11-person team of students spent three months locating and interviewing Green Carts vendors (July-September 2013).
Interviews were conducted in English, Spanish, and Bengali. A sample of customers was interviewed in November 2013. The customer sample survey was designed to capture any differences among Green Cart customers based on location in the core or periphery of the designated areas. Elite interviews were also conducted with key stakeholders.


About the School of International and Public Affairs (SIPA)

For more than 60 years, SIPA has been educating professionals who work in public, private, and nonprofit organizations to make a difference in the world. Through rigorous social science research and hands-on practice, SIPA’s graduates and faculty strive to improve social services, advocate for human rights, strengthen markets, protect the environment, and secure peace in their home communities and around the world. SIPA students interested in contemporary city issues can focus their studies through a special Urban Policy Program. Based in New York City, with a student body that is 50 percent international and educational partners in cities around the world, SIPA is the most global of public policy schools. For more information, please visit sipa.columbia.edu.

About Columbia University

A leading academic and research university, Columbia continually seeks to advance the frontiers of knowledge and to foster a campus community deeply engaged in understanding and addressing the complex global issues of our time. Columbia’s extensive public service initiatives, cultural collaborations, and community partnerships help define the University’s underlying values and mission to educate students to be both leading scholars and informed, engaged citizens. Founded in 1754 as King’s College, Columbia University in the City of New York is the fifth oldest institution of higher learning in the United States.

About the Laurie M. Tisch Illumination Fund

The Laurie M. Tisch Illumination Fund is a New York City-based foundation that strives to improve access and opportunity for all New Yorkers. Founded in 2007 by philanthropist Laurie M. Tisch, the Illumination Fund plays an active role in supporting innovative approaches to education, the arts, healthy food and civic service in order to illuminate strategies that transform our urban landscape. For more information about the Illumination Fund, visit: http://www.lmtilluminationfund.org/

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