

From: Dokxok Phimmavongxay
To: dsnyfoil@dsny.nyc.gov
CC: rramos@dcccd.edu
Date: 6 May 2022

Subject: Technical Report: Request to Have Recycling Bins and the Recycling Program in Staten Island

Dear: Jessica S. Tisch, Commissioner of the Department of Sanitation,

I am writing to the Commissioner of the Department of Sanitation to request recycling bins and the New York Recycling Program to reduce trash pollution in Staten Island, as explained in my attached technical report.

I have observed Staten Island citizens and travelers throwing their waste everywhere. People do not prioritize recycling; they throw their garbage altogether. I noticed Staten Island is the most waste area than the big cities. I believe a garbage truck cannot separate plastic, glass, and metal materials from each other. So, the garbage truck throws the waste in a landfill instead of a recycling center. As a result, the wastes sit in landfills for more than one hundred years and cause global warming.

Therefore, I suggest that the commissioner of the Department of Sanitation promote recycling bins and spread more recycling bins in the Staten Island area in 2023 summer. It will be the primary step to encouraging people there to prioritize recycling.

I look forward to hearing from you soon, and thank you for your time.

Sincerely,
Dokxok Phimmavongxay

Title: Recycling Bin and the New York Recycling Program to Reduce Trash Pollution in Staten Island

Executive Summary / Abstract

A recycling bin is an effective way to help the city trucks throw away the waste at landfills or drop it off at recycling centers. The more waste is recycled and reused the less trash is thrown into the landfill. Unfortunately, most plastic and other reusable products are not recycled because people do not separate them and waste management cannot separate all of them, so that they go to landfills.

In New York City (NYC) waste is a big issue. New York City includes Manhattan, Brooklyn, Queens, the Bronx, and Staten Island, and they all have trash pollution. The first data shows Staten Island has the highest waste in tonnage compared to Manhattan. It is correlated to the higher-income area being cleaner because they have a better education. The second data shows that DSNY (the New York City Department of Sanitation) and the private waste sector dump more than fifty percent of the waste into landfills. However, the private sector throws less waste into landfills and more into recycling because they make money from recycling.

Both data show that the Department of Sanitation does not provide enough recycling bins around the city. The Manhattan area has lower waste because they can access recycling bins and receive education from the New York Recycling Program. However, Staten Island which is a rural area of New York has more waste because they do not have recycling bins and they do not have a New York Recycling Program in their area.

In the future, it is possible for The Department of Sanitation to prioritize providing recycling bins to Staten Island and support the New York Recycling Program over there. Overall,

New York City will be cleaner and better for sightseeing if Staten Island gets enough recycling bins and the people receive the same education as those in the big city.

Introduction

A recycling bin is a separate container that contains different types of waste, such as plastic bottles, paper, glass, aluminum cans, and food waste. Many recycling bins are colorful and marked with universal recycling symbols. In addition, they may have pictures of different types of materials to make it easier for users to distinguish into which container they will place the trash.

New York City is a diverse city as well as a tourist city. It includes Manhattan, Brooklyn, Queens, the Bronx, and Staten Island. However, According to the website Time Out, New York City is one of the top three dirtiest cities globally (Gleason). To help NYC offer better sightseeing, the people and the city need to start recycling and improve trash management.

According to the website World Population Review, Staten Island's population has only 474,893 people compared to Manhattan's population of 1,631,990 people (“Staten Island Population 2022”)(“Manhattan Population 2022”). However, Staten Island has more trash pollution than Manhattan because they do not have enough recycling bins and cannot access the New York Recycling Program.

My intention is to ask the Department of Sanitation to provide the recycling bins and support the New York Recycling Program to Staten Island.

Methods

The Open Trash Lab pulls the DSNY refuse collection map from the NYC Open data regarding tonnage collection by the New York City of Sanitation. This map was only data from November 2011. The Open Trash Lab aimed to analyze the correlation between waste and income in New York City. The income factors in this analysis also include peoples' education ("DSNY Refuse Collection").

According to the websit CBC, The CBC collected the data of New York City garbage disposed by sector and destination in the year 2012. The CBC separates two types of waste systems: the New York City Department of Sanitation and the private sector. Waste management has two stages: collection and disposal. The waste that trucks collect is disposed of in three ways: recycled, waste to energy, and landfill. Recycling is the process that separates paper, plastic, metal, and glass to reuse. The waste taken to the landfill is buried or burned. The waste energy is used as fuel to make electricity ("12 Things New Yorkers").

Findings / Data Analysis

The first data is the Collection of Tonnages by the New York City Department of Sanitation in November 2011. The map uses a variety of colors to denote the waste collection in tonnage throughout New York City. The darker red is the greater tonnage of garbage collected.

This map points out interesting information. The most noticeable is the lightest areas are in big cities like Manhattan, which means there is lower waste in Manhattan. The darkest red area is on Staten Island. The data seems surprising because one would expect the higher population to have higher garbage waste, but they do not. Staten Island has the most waste in tonnage. This information leads to the correlation that the higher income areas are cleaner

because they have a good education as well as more recycling programs and more recycling bins in the big cities.

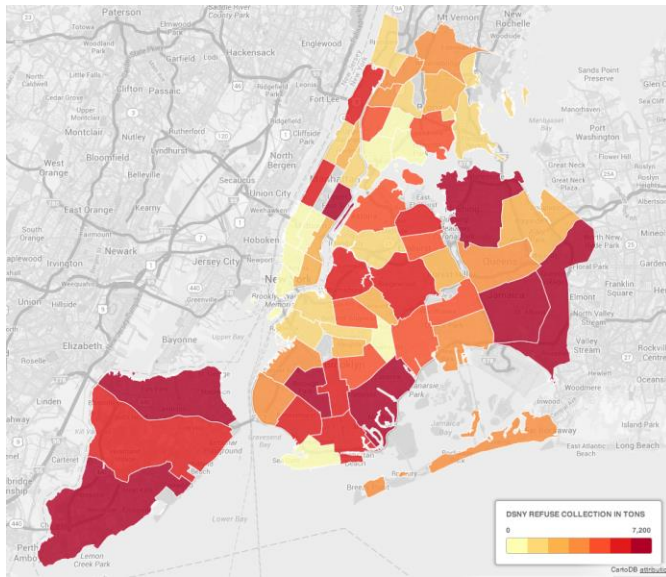


Figure 1 Collection Tonnages by the New York City Department of Sanitation

(<http://www.opentrashlab.com/research/dsny-refuse>)

According to the website CBC, the second bar chart demonstrates the New York City Garbage Disposed by Sector and by Destination Fiscal Year 2012. The waste of 38 billion tons that DSNY collected recycled only 14 percent or 547 tons. 76 percent or 2,894 tons are sent to landfills. The 10 percent or 372 tons was burned. The waste collected by the private sector was 39 billion tons. It is about 63 percent or 2,481 tons are recycled. The 37 percent or 1,475 went to landfills (“12 Things New Yorkers”).

It shows in the data that the most significant waste collected by DSNY or the government sector went to landfills. It seems this is because they cannot separate the material; they send most waste to landfills. According to the website Roadrunner, “When it fails to get recycled (the case 68% of the time), it often heads to be covered over in the landfill”(Deer). Compared to the

Private sector, recycled waste is more than half of all waste because they can earn money from recycling.

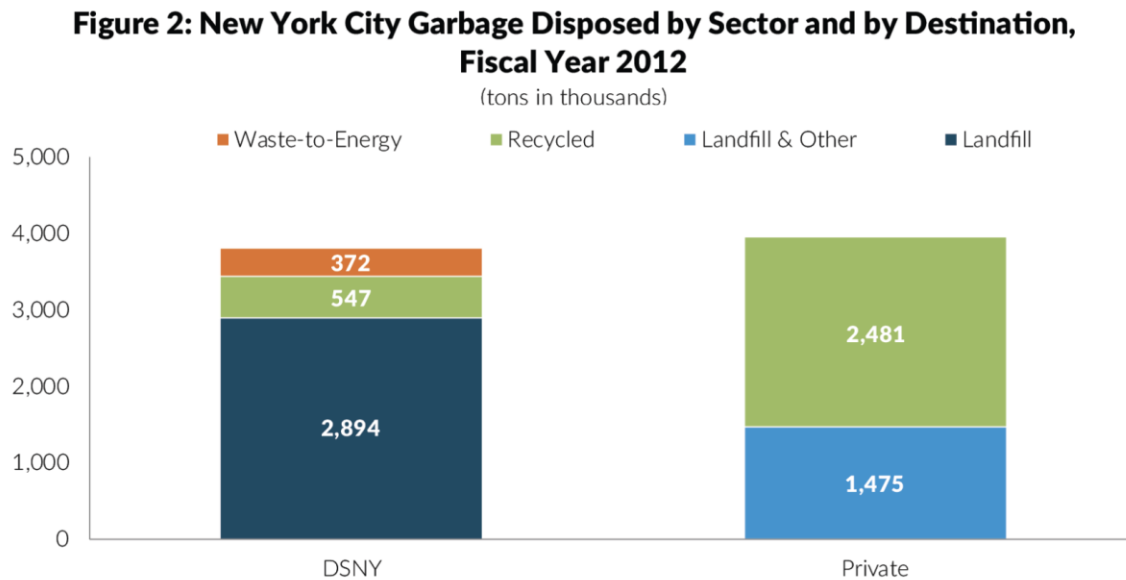


Figure 2: New York City Garbage Disposed by Sector and by Destination, Fiscal Year 2012

(<https://cbcny.org/research/12-things-new-yorkers-should-know-about-their-garbage>)

Conclusion and Recommendations

As we see from the data, New York City dumps most of its waste in landfills. The Department of Sanitation fails to provide enough recycling bins around the city. So, the waste organization cannot separate different types of material from recycling and ends up of throw most waste away in the landfills. The data shows that rural areas like Staten Island have the most waste than the big cities. This is because people do not receive education from the New York Recycling Program and do not have enough recycling bins. Suppose the Department of Sanitation spreads enough recycling bins and supports the New York Recycling Program in Staten Island. In that case, they will help to reduce the waste there. The recycling bins in public will be the primary step to interest citizens in recycling waste in their homes. People will

prioritize recycling more because they see the Department of Sanitation seriously paying attention to trash pollution. People in Staten Island who join recycling programs will see how recycling is essential.

References

- “A Brief History of New York City Recycling.” *Weill Cornell Medicine, Sustainability*,
<https://sustainability.weill.cornell.edu/recycling/brief-history-new-york-city-recycling#:~:text=Recycling%20began%20in%20New%20York,were%20recycling%20the%20same%20materials>.
- Deer, Ryan. “Landfills: We're Running out of Space.” *RoadRunner Smarter Recycling*,
RoadRunner, 4 Mar. 2021, <https://www.roadrunnerwm.com/blog/landfills-were-running-out-of-space>.
- “DSNY Refuse Collection.” *Open Trash Lab*, Open Trash Lab,
<http://www.opentrashlab.com/research/dsny-refuse>.
- Gleason, Will. “NYC Was Voted One of the Top Three Dirtiest Cities in the World.” *Time Out*,
Time Out, 13 Sept. 2021, <https://www.timeout.com/newyork/news/nyc-was-voted-one-of-the-top-three-dirtiest-cities-in-the-world-091321>.
- “How to Put Recycling in NYC on the Right Track.” *New York League of Conservation Voters*,
9 Jan. 2020, <https://nylcv.org/news/how-to-put-recycling-in-nyc-on-the-right-track/>.
- “Manhattan Population 2022.” *World Population Review*, World Population Review,
<https://worldpopulationreview.com/boroughs/manhattan-population>.

“NYC Wants You to Recycle, so Where Are All the Recycling Bins?” *CBS News*, CBS News, 11 July 2019, <https://www.cbsnews.com/newyork/news/nyc-recycle-where-are-trash-bins/>.

“Staten Island Population 2022.” *World Population Review*, World Population Review, <https://worldpopulationreview.com/boroughs/staten-island-population>.

“12 Things New Yorkers Should Know about Their Garbage.” *Citizens Budget Commission*, Citizens Budget Commission, 21 May 2014, <https://cbcny.org/research/12-things-new-yorkers-should-know-about-their-garbage>.