

# The Effect of Better Trash Collection Methods on Public Health in the Upper East Side and Harlem

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## Introduction

As New York City is so densely populated, there are often difficulties with proper trash disposal, collection, and management. This can attract disease vectors such as rodents that can carry dangerous illnesses that pose a risk to public health. Furthermore, trash management and collection varies throughout the city; wealthier areas like the Upper East Side are typically less polluted than low-income neighborhoods such as Harlem. This brings forth the proposition that if better collection methods are implemented across the city, street pollution levels will decrease and public health will improve.

## Methods

1. Visit both neighborhoods at various times and days of the week to assess the amount of trash present on the street.
2. Interview residents in both neighborhoods and ask the following questions:
  - How many pests are present in their homes?
  - Has anyone in their community gotten sick from vector-borne diseases?
  - What are their thoughts on the cleanliness of their neighborhood?
3. Examine publicly-available data on trash collection and street cleaning schedules.

## Data

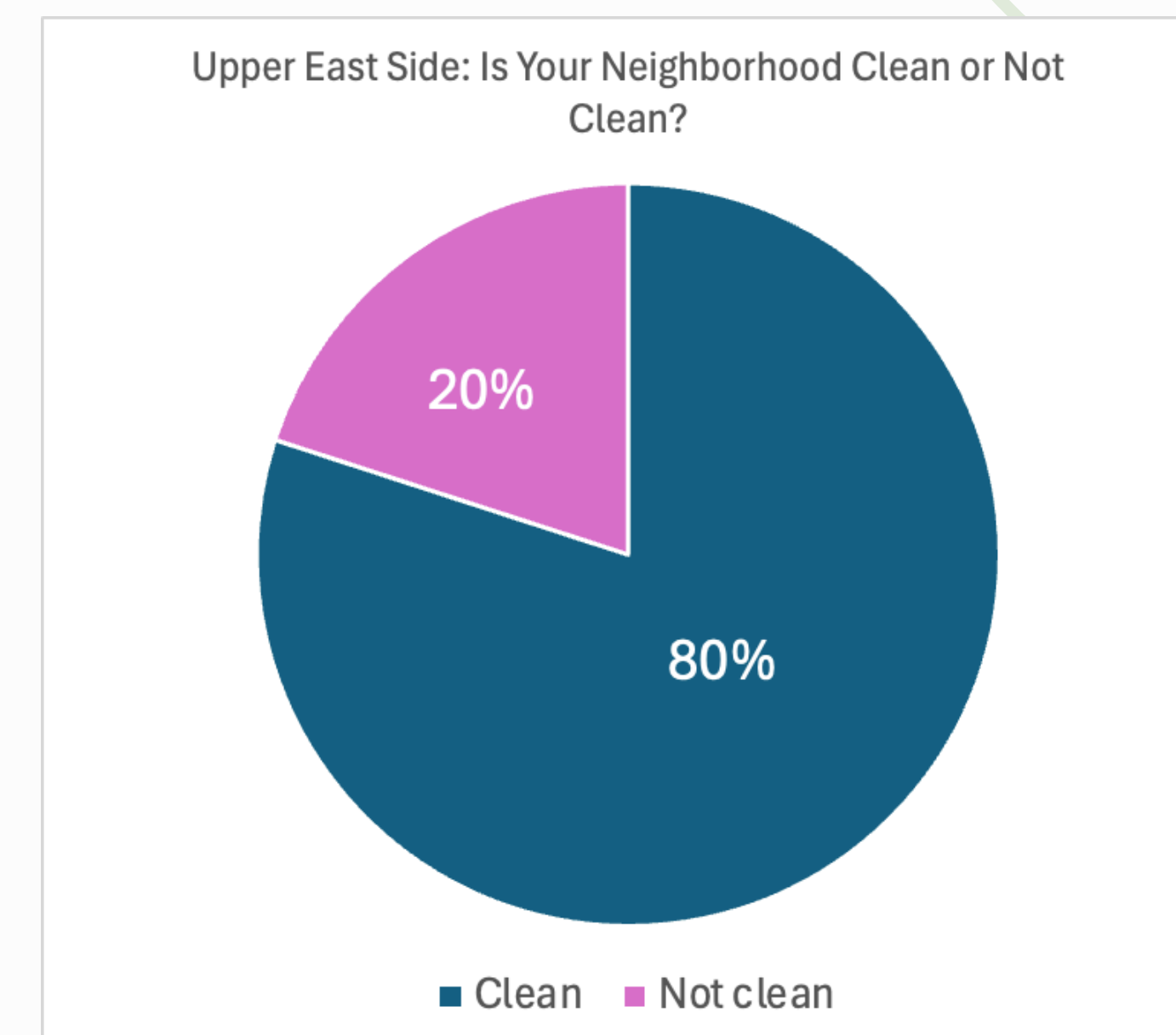


Figure 1. Pie graph displaying the responses from residents in the Upper East Side to the third survey question: do you think your neighborhood is clean? 80% of responders said yes, 20% said no.

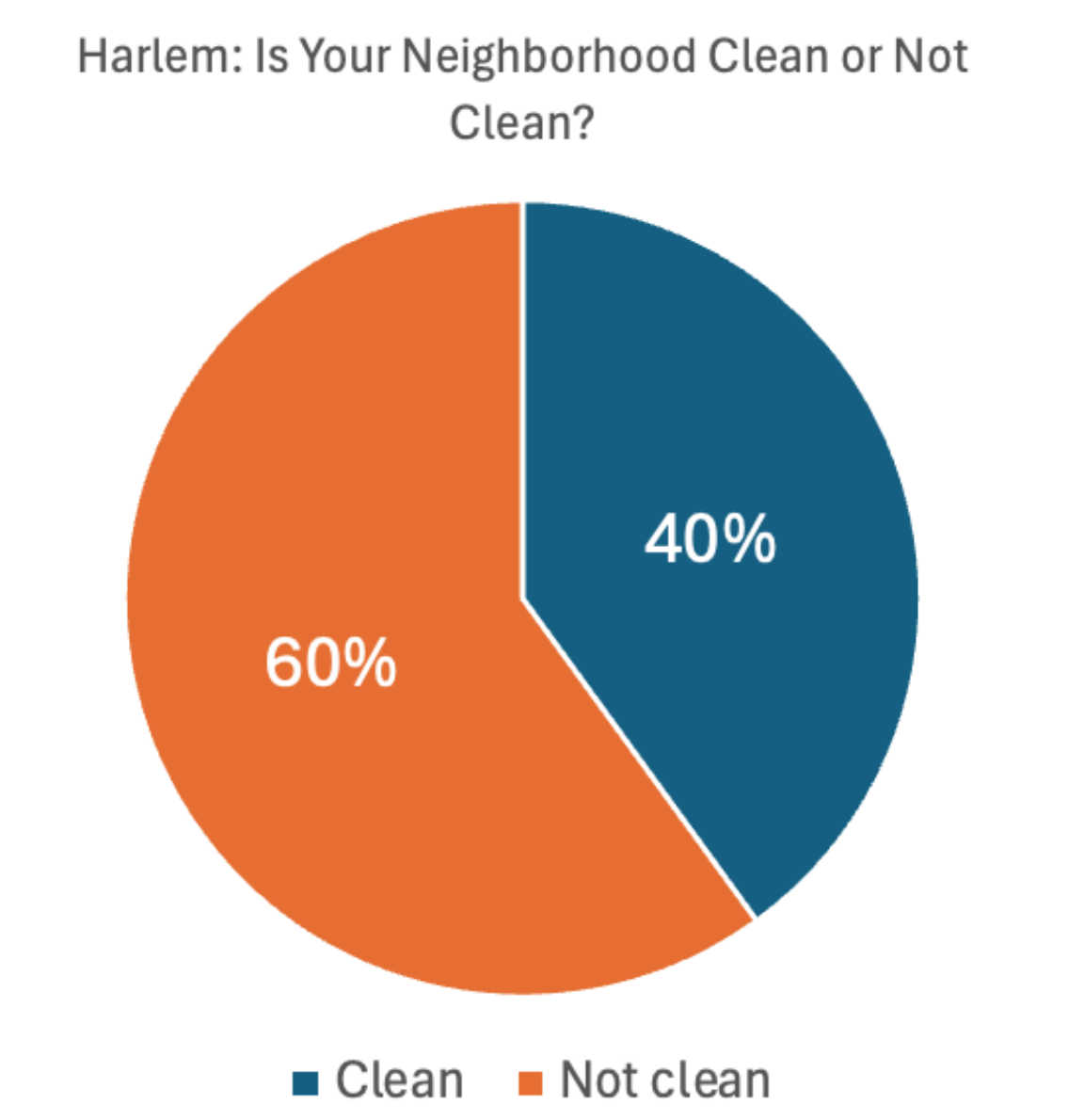


Figure 2. Pie graph displaying the responses from residents in Harlem to the third survey question: do you think your neighborhood is clean? 40% said yes, 60% said no.

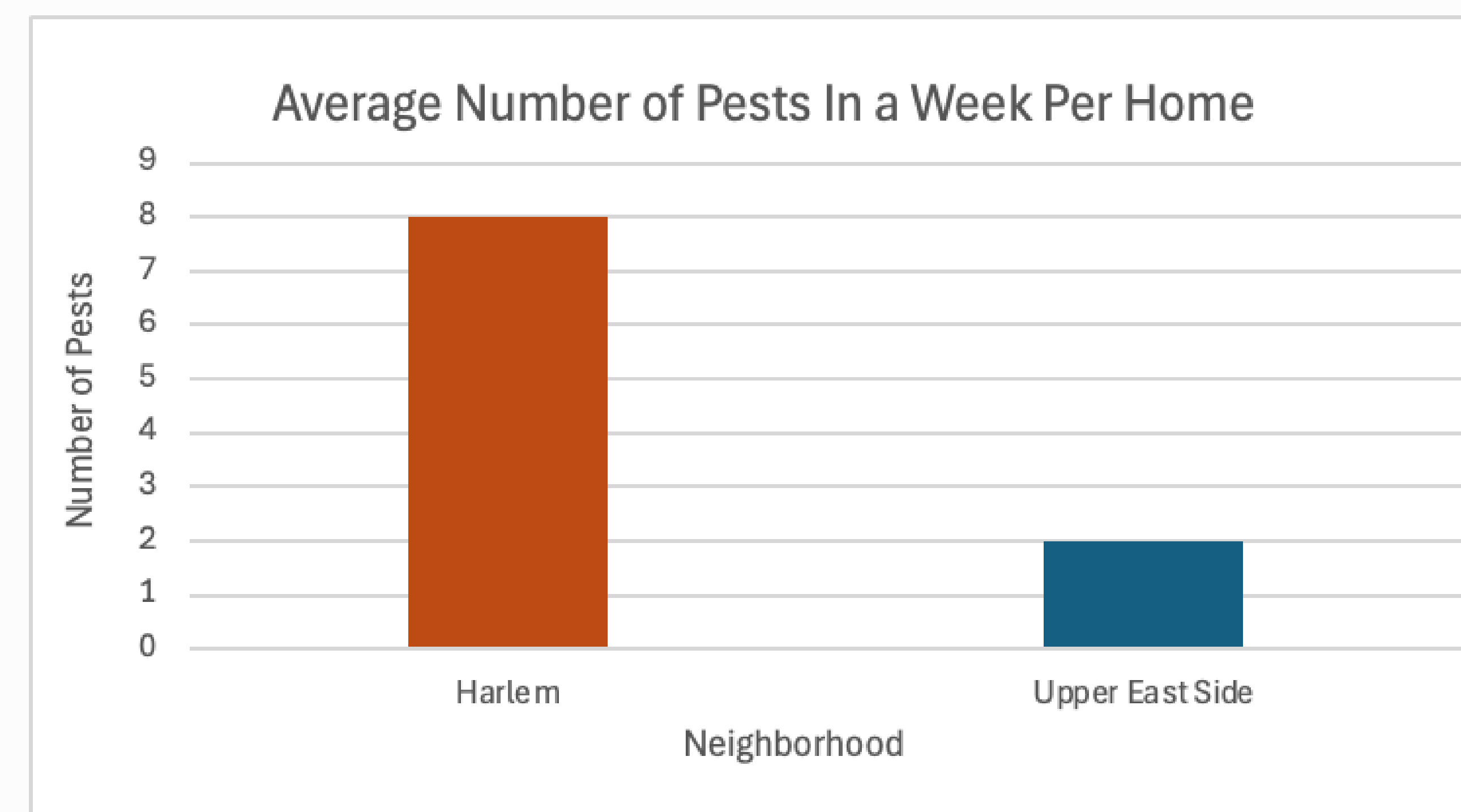


Figure 3. Bar graph showcasing the average number of pests survey respondents reported appeared in their homes per week. Residents in Harlem reported a much greater number than those in the Upper East Side.

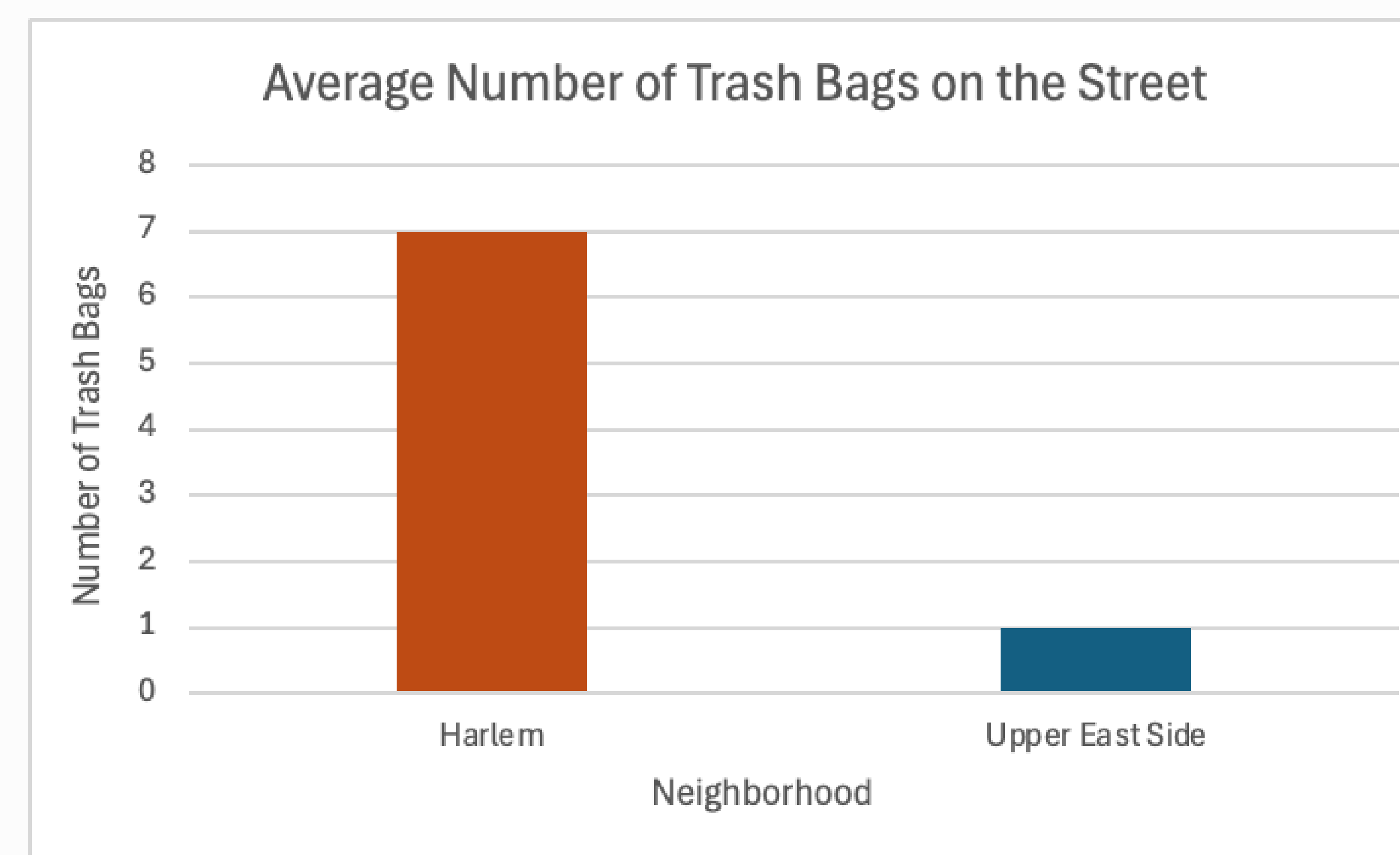


Figure 4. Bar graph showcasing the average number of trash bags visible on the sidewalks in both neighborhoods. Harlem has a much higher number of trash bags kept on the street than the Upper East Side.

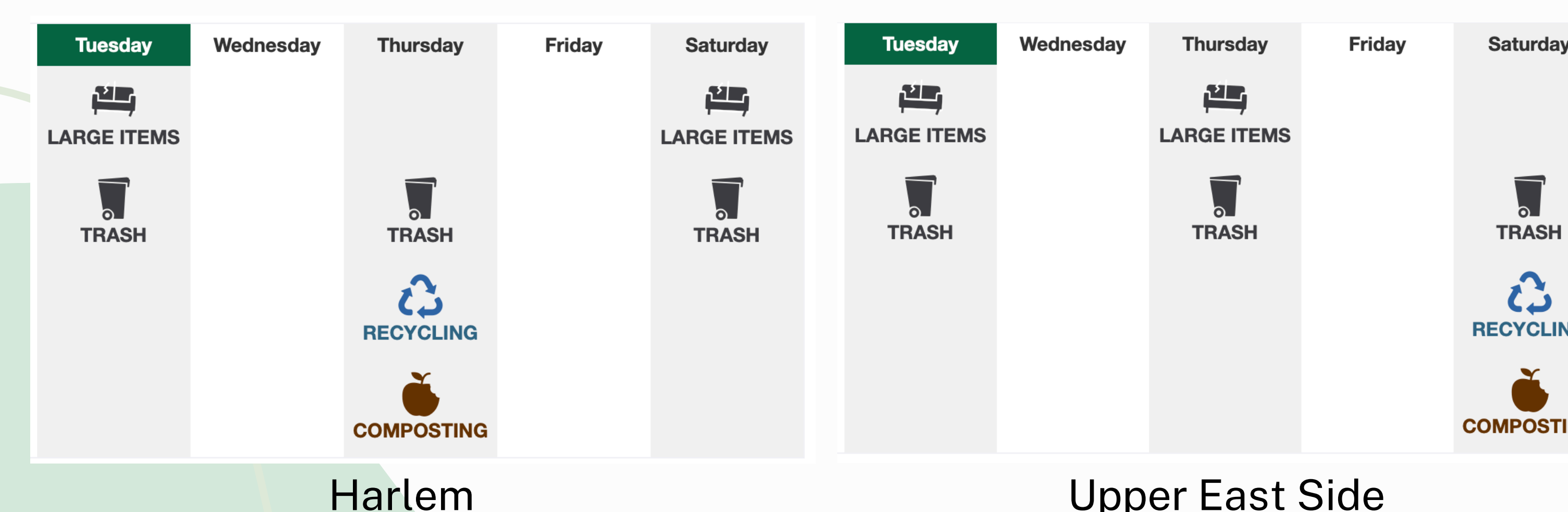


Figure 5. Images of trash collection schedules for a neighborhood in Harlem and a neighborhood in the Upper East Side. Source: <https://www.nyc.gov/assets/dsny/forms/collection-schedule>

## Results/Discussion

- The public health in Harlem is significantly worse than that of the Upper East Side, as shown by the higher amount of trash bags and pests observed in the community.
- Public opinion of pollution and health is worse in Harlem as well, suggesting residents want a cleaner neighborhood.
- Although both communities have similar trash collection schedules, it is clear that Harlem requires more service from the Department of Sanitation.
- Harlem is known to be a larger area and as such, it should be cleaned more frequently. This would likely lead to decreased amounts of pests and less pollution.
- Though it was difficult to quantify the number of vector-borne diseases, respondents in Harlem indicated that people in their homes have gotten sick more frequently than those in the Upper East Side.

## Future Directions and Limitations

1. Analyze business-generated trash and how it correlates to street pollution
2. Work with communities to develop more awareness of the dangers of improper trash disposal
3. Campaigning for better policies that support the improvement of trash management, particularly in low-income areas.
4. Visit a greater variety of neighborhoods, both wealthy and low-income in NYC.
5. Conduct a longitudinal study on vector-borne diseases in NYC communities.