

Upper East Side Taxis, For-Hire-Vehicles and the Second Avenue Subway

**Sarah M. Kaufman and Ari L. Kaputkin
NYU Rudin Center for Transportation**

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Since the opening of the Second Avenue Subway's three new stations on January 1, 2017, pickups by taxis and for-hire-vehicles (FHV) in the immediate vicinity have declined overall, according to a new report by NYU's Rudin Center for Transportation.

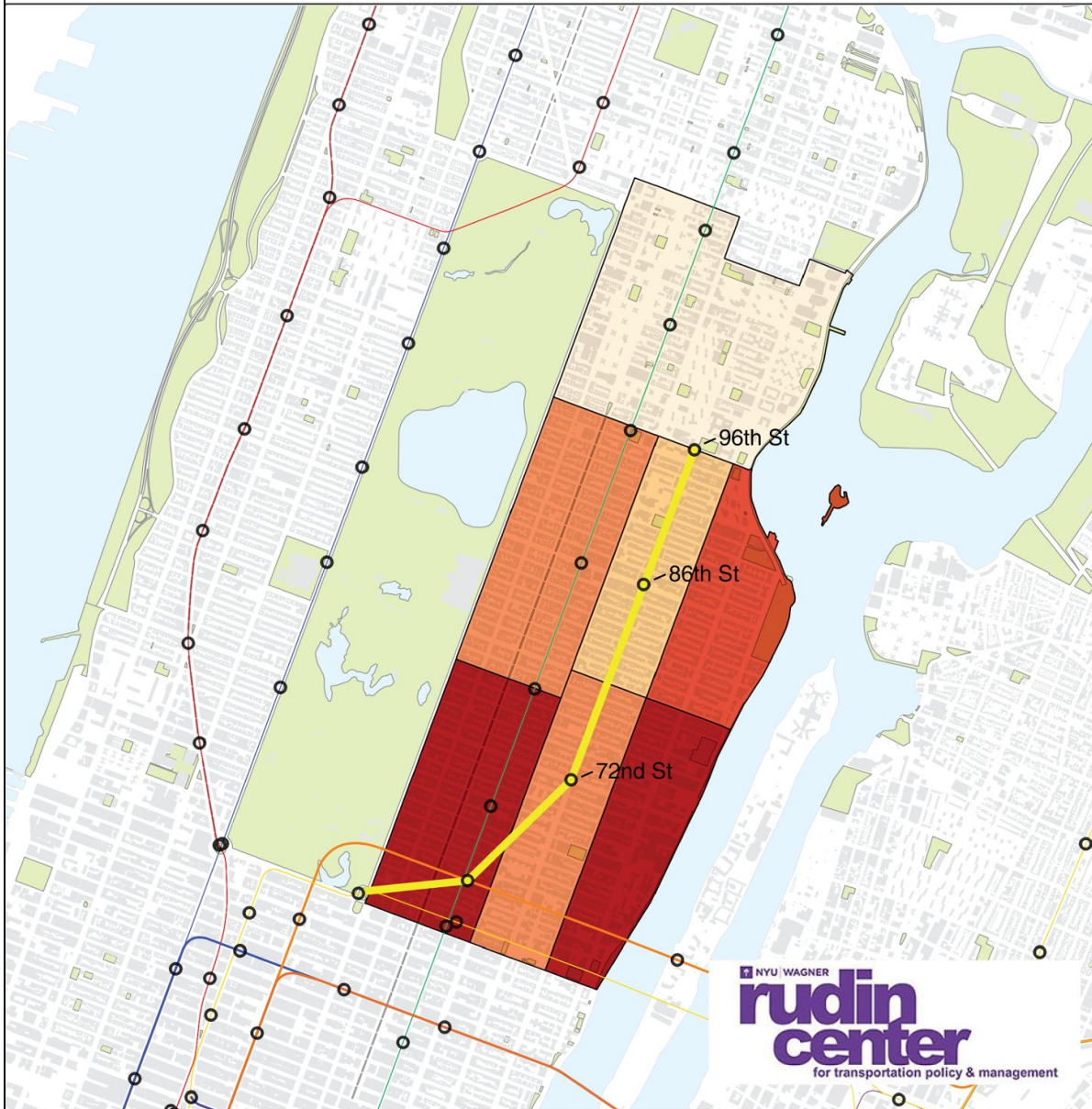
Along the Second Avenue Subway (SAS) corridor, taxi use has historically been higher than in other Upper East Side of Manhattan neighborhoods. In the Lenox Hill East neighborhood, 9% of residents reported using taxis for their commute to work, and in Yorkville East, which once boasted the residential address furthest from any subway station in Manhattan, 7.3% of residents commuted by taxi. In Manhattan as a whole, only 2.9% of commuters relied on taxis as their main mode of commuting¹.

¹ 2015 American Community Survey 5-Year Estimate

Percent of Commuters using Taxis

2015 ACS 5-Year Estimates

1% - 2.5%v 2.5% - 4% 4% - 5.5% 5.5% - 7% 7% +



Since the SAS opened, taxi and for-hire-vehicle pickups decreased overall in all taxi zones but East Harlem South, as compared to the previous year. The extent of these changes varies by neighborhood.

Percent Change in Pickups: January 2016 vs. January 2017

Taxi Zone	FHV Pickups 2016	FHV Pickups 2017	FHV Change in Pickups	Taxi Pickups 2016	Taxi Pickups 2017	Taxi Change in Pickups	Overall Change in Pickups
East Harlem South	1,170	1,997	70.68%	2,933	2,924	-2.31%	18.21%
Yorkville East	4,812	5,262	9.35%	7,491	6,785	-9.42%	-2.08%
Yorkville West	4,154	4,271	2.82%	8,014	6,544	-18.34%	-11.12%
Lenox Hill East	3,713	4,896	31.86%	11,253	9,009	-19.94%	-7.09%
Lenox Hill West	5,154	5,642	9.47%	12,211	9,944	-18.57%	-10.24%
Upper East Side North	5,455	6,199	13.64%	3,221	2,987	-7.26%	5.88%
Upper East Side South	3,717	4,363	17.38%	3,119	2,522	-19.14%	0.72%
Total	28,175	32,630	15.81%	48,302	40,715	-15.71%	-4.10%

Accounting for the net change in FHV and taxi pickups, the SAS corridor experienced a 4.1% decrease in net total pickups despite total FHV pickups increasing in every zone over the same period of time. In Manhattan as a whole, taxi pickups decreased by 1.1 million (June 2015 - June 2016), while Uber pickups increased by 1.2 million². However,

² <http://toddwschneider.com/posts/analyzing-1-1-billion-nyc-taxi-and-uber-trips-with-a-vengeance/>

the decrease in taxi pickups along the SAS has outpaced the increase in FHV pickups. In other words, **although FHV pickups are increasing quickly, they have not matched the rate of decrease in taxi pickups since the SAS opening.** There has been a decrease in pickups overall.

Increases in overall pickups occurred in East Harlem South, Upper East Side North and Upper East Side South. East Harlem South is an outlier in the SAS corridor: it was the only zone with an increase in pickups, and with a relatively large increase at 18.21%. This increase is almost entirely due to an increase in for-hire-vehicle service rather than a substantial decrease in taxi pickups. Taxi pickups decreased by only 2.31% during this period of time, the smallest decrease among the SAS corridor taxi zones. Because many East Harlem residents still live more than half a mile from the nearest SAS station entrance, the opening of the SAS had little impact on taxi and FHV pick ups in that location. The data suggests app-based FHV services are creating a new demand for pickups with residents of East Harlem South, and they may be serving a last-mile need in this area.

Upper East side North and Upper East Side South were the only taxi zones where FHV pickups already outpaced taxi pickups in 2016.

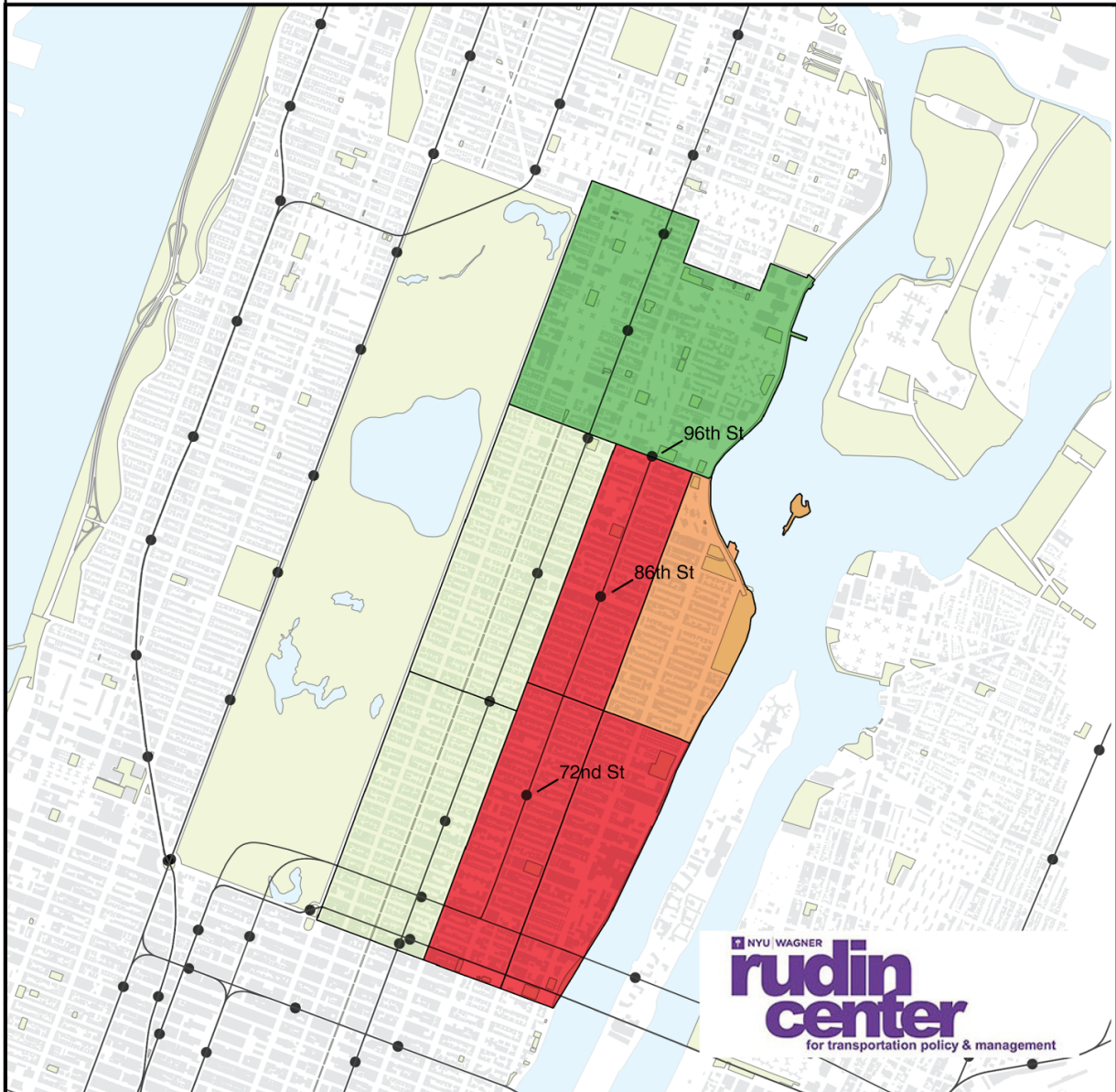
Overall Change in Pickups: January 2016 - January 2017

-11% - -5%

-5% - 0%

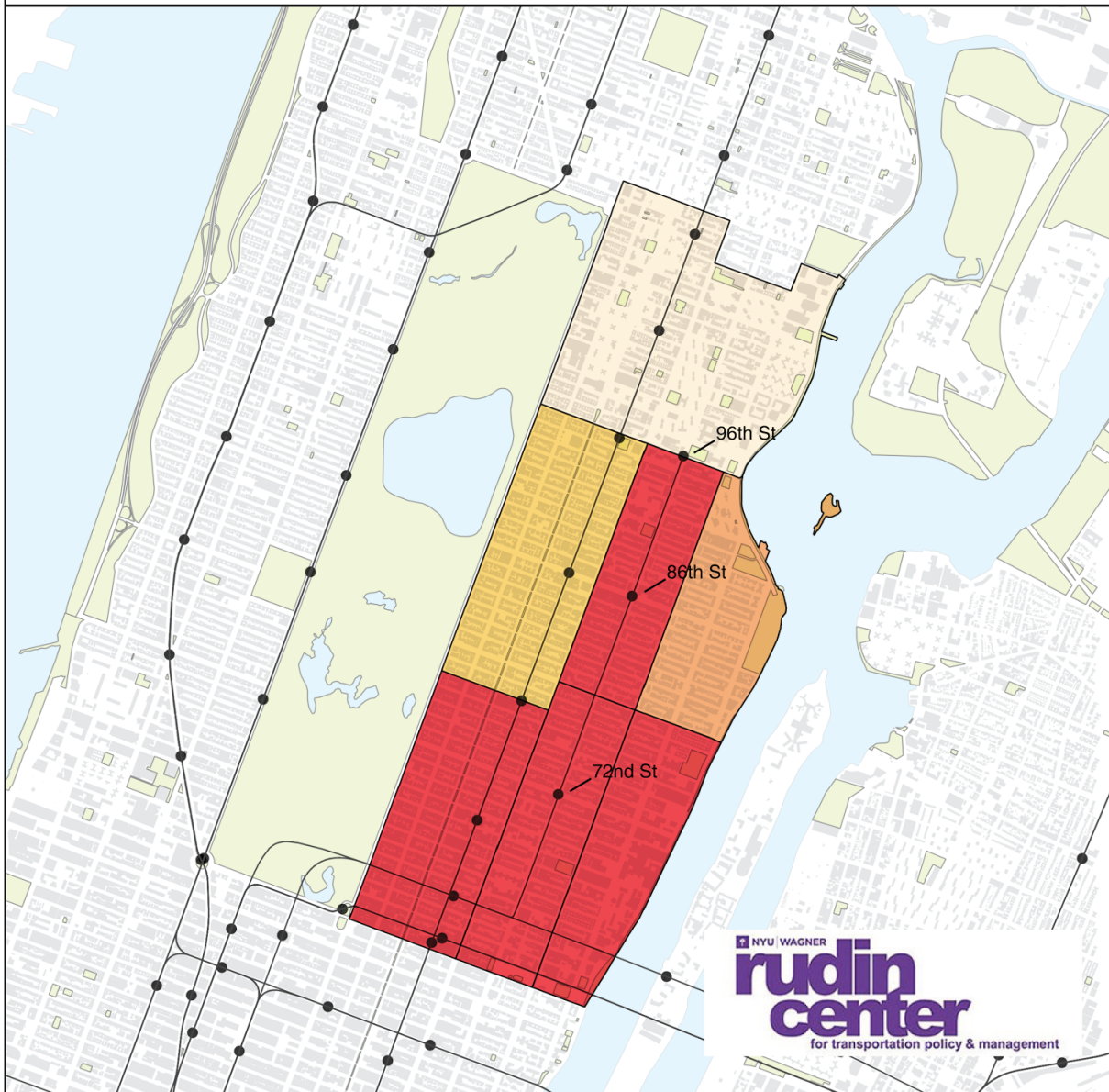
0% - 5%

15% - 20%



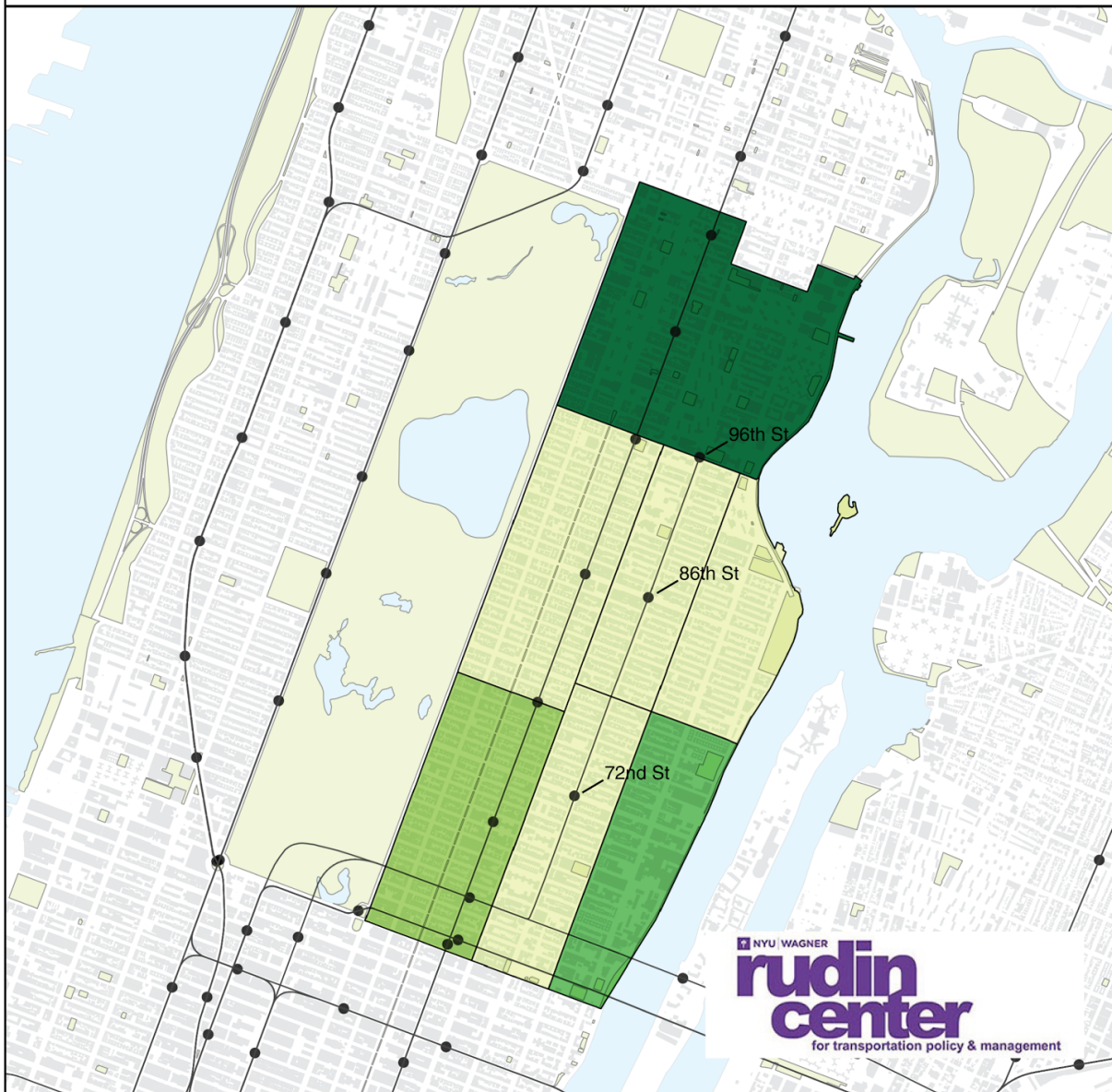
Change in Taxi Pickups: January 2016 - January 2017

0% - -4% -4% - -8% -8% - -12% -12% - -16% -16% - -20%

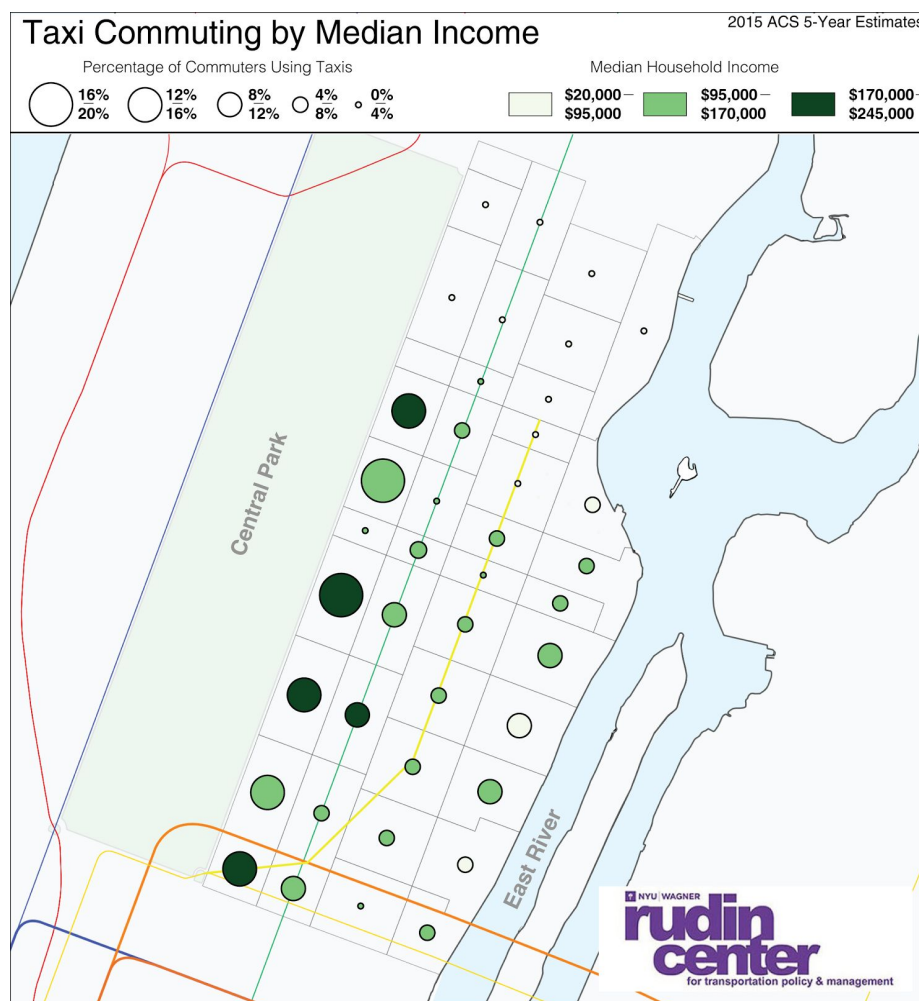


Change in FHV Pickups: January 2016 - January 2017

3% - 16% 16% - 30% 30% - 43% 43% - 57% 57% - 71%



When comparing taxi reliance among Census Tracts, the importance of the Second Avenue Subway is more evident. Given the high cost of taxis and FHV as a primary commute mode, taxi reliance correlates with higher-income populations. In Upper East Side North and Upper East Side South where median incomes are the highest, the percentage of commuters relying on taxis is highest. Conversely, in East Harlem South, where taxi demand is consistently low, median incomes are the lowest in our study area. The SAS has supplied an essential, affordable transportation mode on the Upper East Side for residents, reducing the neighborhood's reliance on taxis. The extension of the SAS line north to 106th, 116th and 126th streets as planned would provide greater access to transit in a neighborhood that is presently far from subway access and relatively low-income.



This study is limited to Yellow Taxi and For-Hire-Vehicle data for a specific timeframe. Further research should look at the longer-term net impact of the new SAS.

Methodology

Taxi pickup and dropoff data was acquired from the New York City Taxi and Limousine Commission. Since 2014, the TLC published all pickup and dropoff locations of their fares. Previously, these locations were reported as exact geographic coordinates, but due to privacy concerns, have recently been aggregated to taxi zones, which are essentially neighborhood zones made up of five to six census tracts. TLC also obtained data from the three major application-based vehicle hailing services operating in New York City: Uber, Lyft and Via for the same geographic and temporal range. This report focuses on taxi and FHV pickups in the taxi zones that encompass the new Second Avenue Subway stations and the taxi zones that directly border them. In total, seven taxi zones encompass the designated Second Avenue Subway corridor in this study: East Harlem South, Lenox Hill East, Lenox Hill West, Upper East Side North, Upper East Side South, Yorkville East, and Yorkville West.

The NYU Rudin Center for Transportation compared total pickups during AM peak hours (7:00am to 11:00am) in these zones for one week in January 2016 (January 11-15) and January 2017 (January 9-13). We calculated the percent change in the number of pickups and dropoffs for each taxi zone between the two time periods. In mapping these percent changes, we categorized the data into five equal numerical ranges. In addition, we analyzed commuting mode share in the census tracts that make up the taxi zones. Using the 2015 American Community Survey 5-year estimates, we calculated the percent mode share for commuters using taxis and public transportation in each census tract.

Median income data is by Census Tract and derived from 2015 American Community Survey 5-year Estimates.