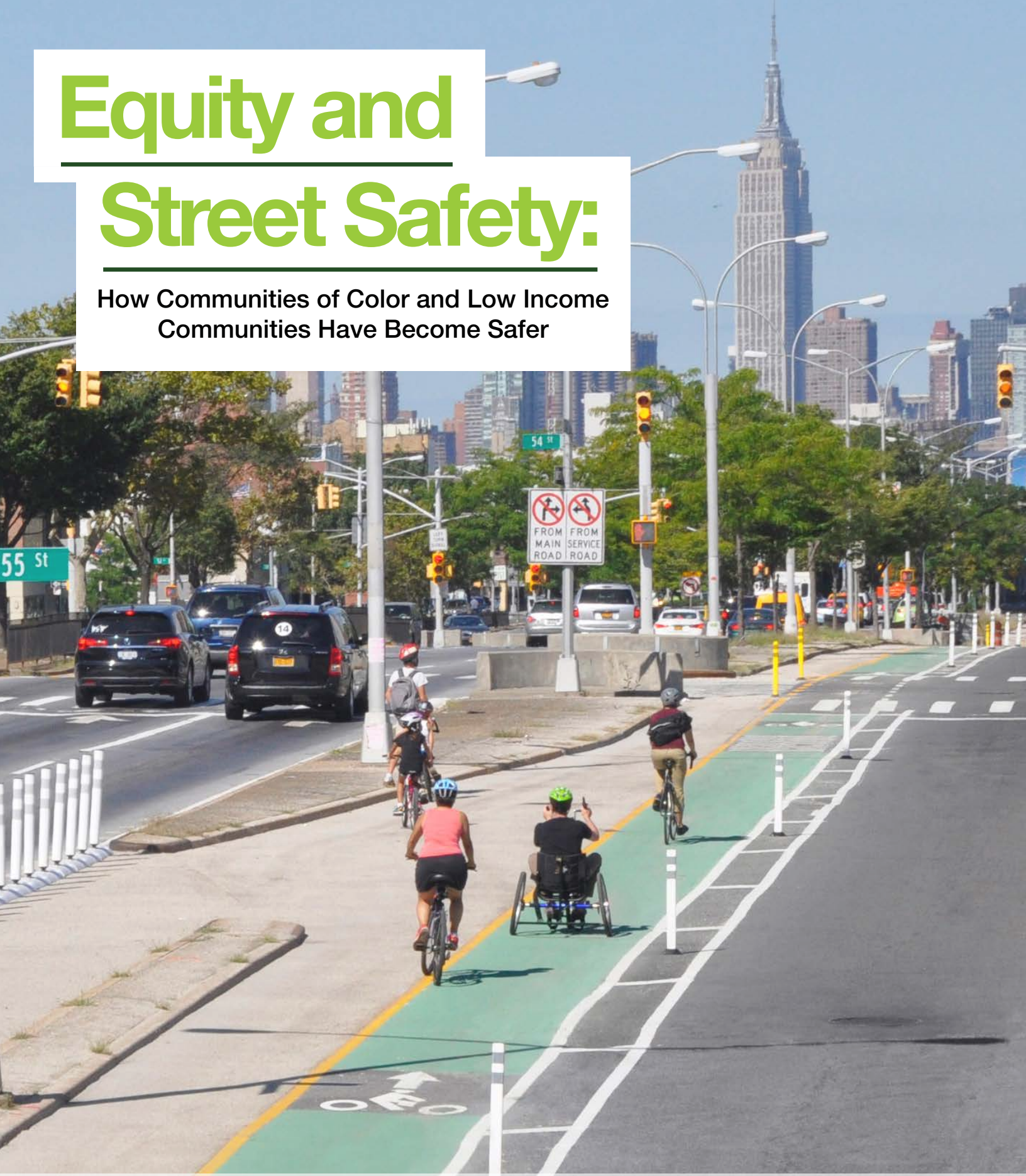
Equity and Street Safety:

How Communities of Color and Low Income Communities Have Become Safer



VISION ZERO
Building a Safer City

NEW YORK CITY DOT

NYC
Delivering for you.
Every day. Everywhere.

Ydanis Rodriguez
Commissioner

Letter from the Comissioner

New York City has made tremendous progress in enhancing road safety in recent years. Many varied elements of Vision Zero have contributed to these positive results, especially with respect to pedestrian fatalities. Pedestrian fatalities fell to record lows in New York City while the nation was at 40-year highs.

We believe transportation must meet the needs of communities of color and those of all incomes, abilities, ages, gender, and sexual orientation. We respect and embrace the diversity of our communities to meet the transportation needs of all New Yorkers.

Since the start of the Vision Zero initiative in 2014, the equitable distribution of street improvements has been at the center of our mission to bring road safety to every corner of the five boroughs. Traffic violence is a concern in every neighborhood. At the same time, DOT also brought over 4 million square feet of added pedestrian space to communities throughout the city.

Everyone should be able to travel safely and securely through the city via all available mode options.

This report helps to show how NYC DOT's work prioritizing street improvements in neighborhoods with the greatest safety needs has had a noticeable positive impact on safety for all New Yorkers, with the largest declines in fatalities being seen in neighborhoods which are over 80% Black, Asian, or Hispanic.

The Adams Administration has been proud to stand alongside advocates and elected officials to continue bringing safe street design to communities city-wide. In particular, we are proud that our lowest income communities have received a higher proportion of street redesign projects relative to their road network, compared to our richest communities.

We look forward to continuing our street improvement work, so all New Yorkers have unobstructed access to safe transportation and as a result, unobstructed access to opportunity.

Sincerely,

Ydanis Rodriguez
Commissioner
New York City Department of Transportation

The Goal, Definitions, + Methodology for this Study:

Goal:

Our goal for this study was to determine if neighborhoods with high shares of non-white residents and/or high poverty rates experienced disparate outcomes in terms of project delivery and traffic fatalities since the start of Vision Zero in New York City in 2014.

Definitions:

Vision Zero: Serious crashes are preventable, and no one should be killed or seriously injured on the city's roads. That is the fundamental belief behind Vision Zero, New York City's data-driven initiative to improve street safety. Since 2014, the City of New York has invested heavily in comprehensive engineering, enforcement, and education strategies to bring the city closer to the goal of zero deaths and serious injuries.

Street Improvement Projects (SIPs): Safety-oriented street redesign engineering improvements that use multiple treatments (traffic signals, road markings, concrete pedestrian islands, bike lanes, etc) on both corridors and intersections. Unlike capital-funded street reconstruction projects, SIPs are less expensive, built in a matter of months versus years, and do not involve heavy construction and utility replacement. NYC DOT typically installs over 100 SIPs per year.

Neighborhood Tabulation Areas (NTAs): Neighborhood comparisons are made using Neighborhood Tabulation Areas, a geographic neighborhood designation system developed by NYC Dept. of City Planning. NTAs are used by various City agencies as a common unit of analysis for providing public services.

Methodology:

This report compares the distribution of Street Improvement Project (SIP) miles to street miles based on the demographic profile of each of the city's neighborhoods. The Fatality analysis compares the change in fatalities since the start of Vision Zero by neighborhood demographic profile.

The Fatality analysis compares 2014-2023 "Post-Vision Zero" to 2004-2013 "Pre-Vision Zero". The street improvement project analysis uses 2014-2023 project data.

Executive Summary

Since the start of Vision Zero in 2014...

1. The lowest income neighborhoods in the city have received more Street Improvement Project installations per mile.

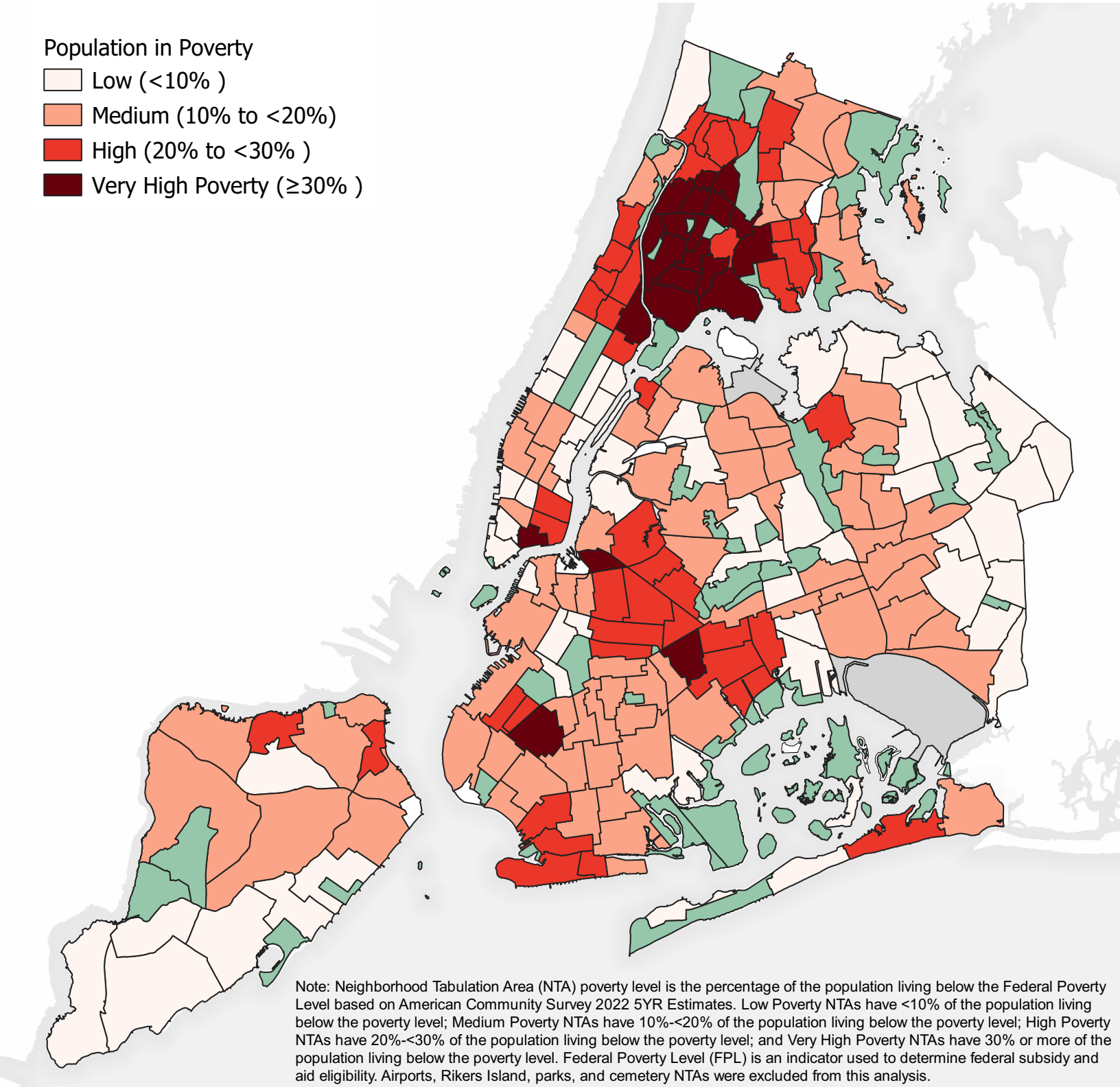
2. Neighborhoods of all incomes experienced declines in pedestrian fatalities and all traffic fatalities, with the lowest income neighborhoods experiencing the greatest decline in pedestrian fatalities on average: -34%.

3. Neighborhoods with the highest shares of Asian, Black and/or Hispanic residents have received more Street Improvement Project installations per mile.

4. Neighborhoods of all races experienced declines in total and pedestrian fatalities on average, but neighborhoods where Asian, Black and/or Hispanic residents made up ~80% of the population saw the sharpest declines: -26% for all fatalities and -32% for pedestrian fatalities.

Under Vision Zero, the lowest income neighborhoods have seen the most street safety projects per mile of street.

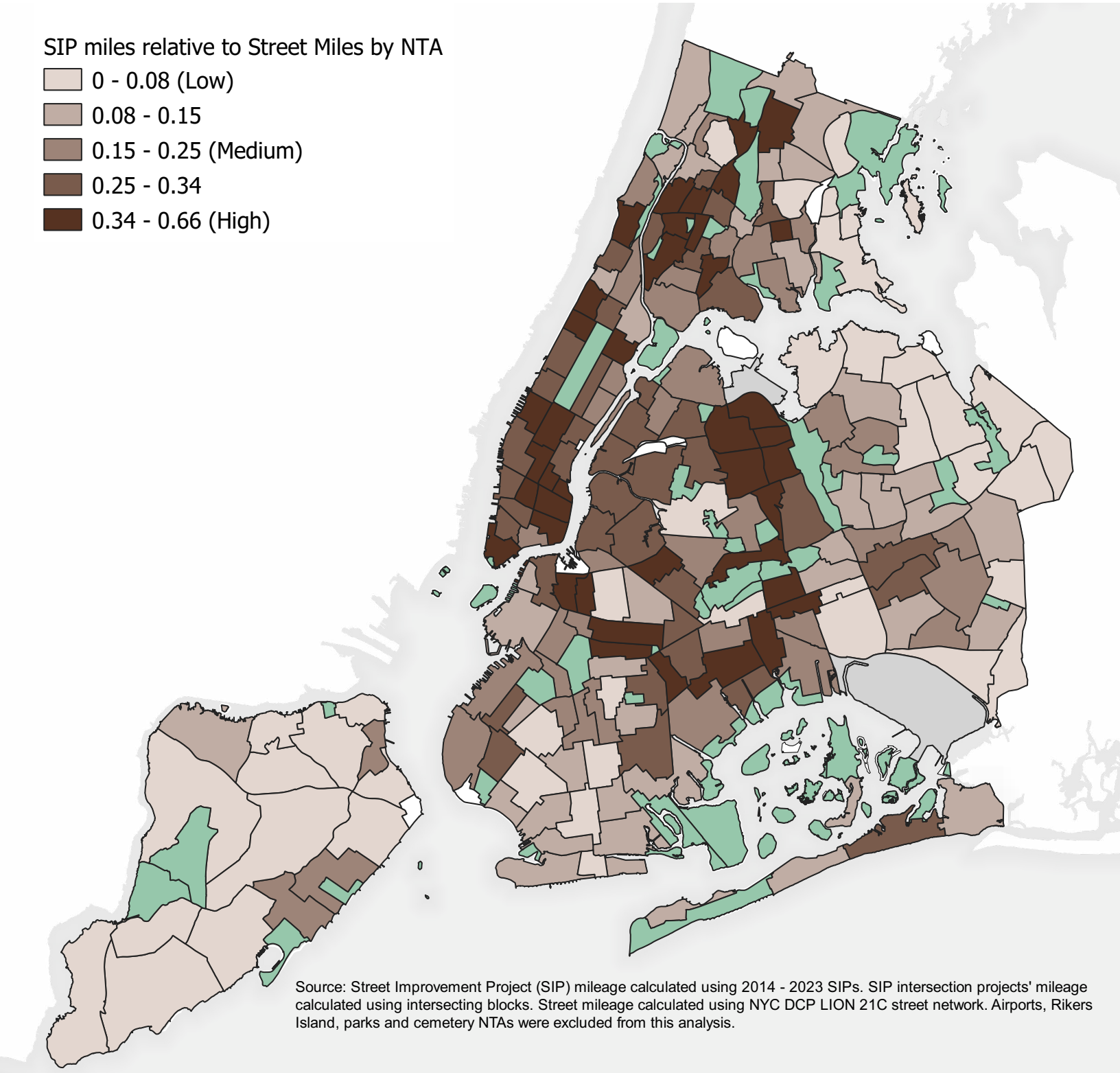
New York City Change in Crash Fatalities by NTA



Note: Neighborhood Tabulation Area (NTA) poverty level is the percentage of the population living below the Federal Poverty Level based on American Community Survey 2022 5YR Estimates. Low Poverty NTAs have <10% of the population living below the poverty level; Medium Poverty NTAs have 10%-<20% of the population living below the poverty level; High Poverty NTAs have 20%-<30% of the population living below the poverty level; and Very High Poverty NTAs have 30% or more of the population living below the poverty level. Federal Poverty Level (FPL) is an indicator used to determine federal subsidy and aid eligibility. Airports, Rikers Island, parks, and cemetery NTAs were excluded from this analysis.

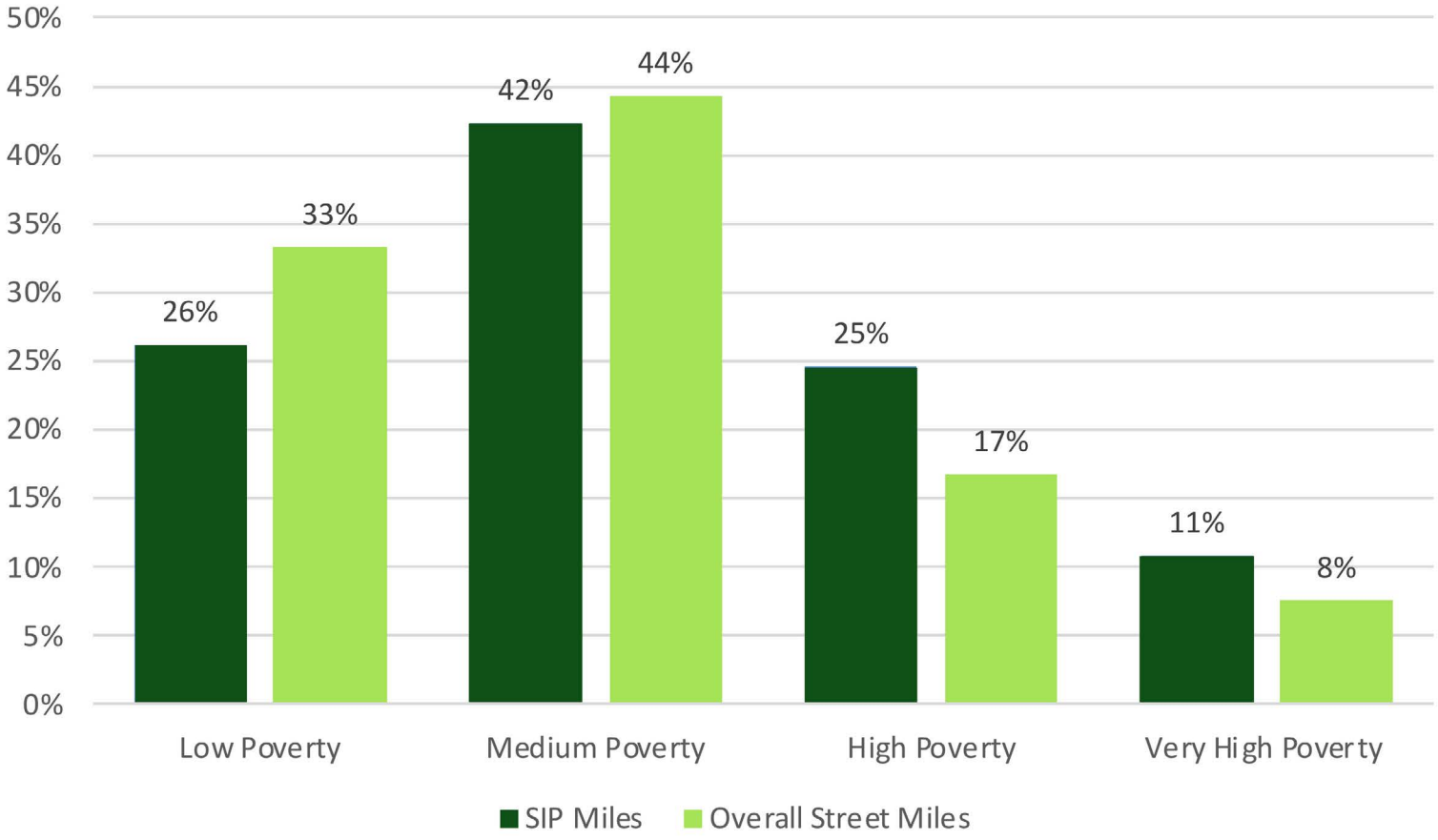
Total Street Improvement Projects by Street Mile

By NYC Dept. of City Planning Neighborhood Tabulation Area



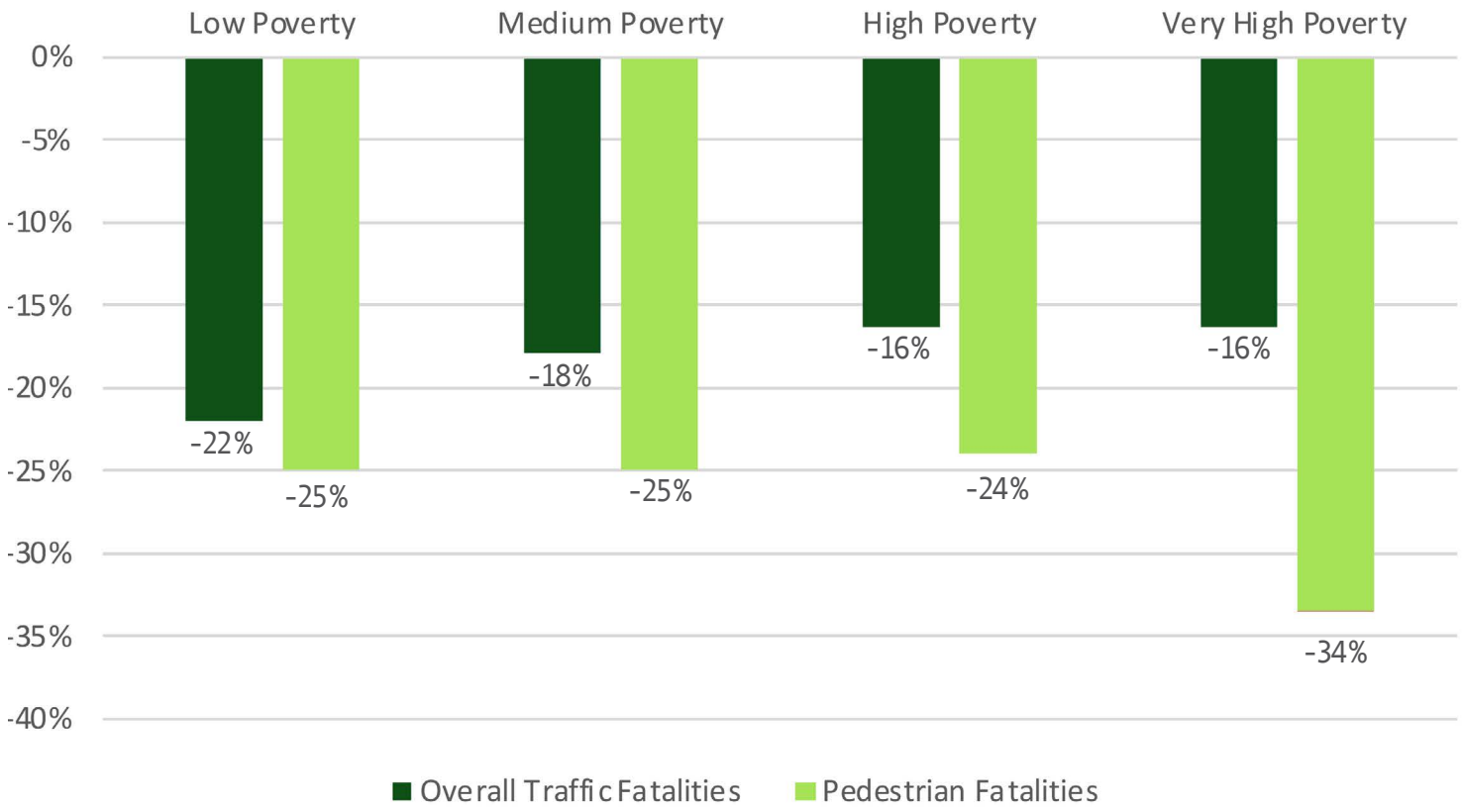
Source: Street Improvement Project (SIP) mileage calculated using 2014 - 2023 SIPs. SIP intersection projects' mileage calculated using intersecting blocks. Street mileage calculated using NYC DCP LION 21C street network. Airports, Rikers Island, parks and cemetery NTAs were excluded from this analysis.

Percentage of SIP and Street Miles by Poverty Level



From 2014 to 2023, SIP construction has generally been concentrated in the subway-accessible areas of the city with the highest population density. Overall, neighborhoods with the highest poverty levels contain 11% of citywide SIP miles and 8% of citywide street mileage. In contrast, the wealthiest neighborhoods contain 26% of citywide SIP miles and 33% of citywide street mileage.

Change in Fatalities by Poverty Level



On average, very high poverty neighborhoods experienced a reduction of 34% in pedestrian fatalities, while low poverty neighborhoods experienced a decline of 25%. However, the pattern was far from consistent; as can be seen from the map on page 8, fatalities both rose and fell in neighborhoods of all income types.

Poverty Summary + Detailed Analysis

Poverty Summary

	NTAs	% of NTAs	Total Population	% of Polulation	Poverty Polulation	% of Population in Poverty	Square Miles	% Square Miles	Street Miles	% Street Miles
Low Poverty	53	26.9%	2,009,025	23.7%	150,133	10%	83	33%	2,331.7	33%
Medium Poverty	79	40.1%	2,528,305	41.6%	494,863	34%	113	45.1%	2,108.2	44.3%
High Poverty	44	22.3%	2,004,465	23.6%	477,845	33%	39	15.6%	1,170.9	16.7%
Very High Poverty	21	10.7%	941,106	11.1%	335,024	23%	16	6.2%	528.9	7.5%

Poverty & SIP Mileage

	SIP Miles	% of Citywide SIP Miles	Street Miles	% of Citywide Street Miles	SIP Mileage/ Street Mileage	% of Population
Low Poverty	322.0	26%	2,331.7	33%	0.1	24%
Medium Poverty	520.2	42%	3,108.2	44%	0.2	42%
High Poverty	302.8	25%	1,170.9	17%	0.3	24%
Very High Poverty	133.6	11%	528.9	8%	0.3	11%

Poverty & Change in Fatalities (2004-2013 vs. 2014-2023)

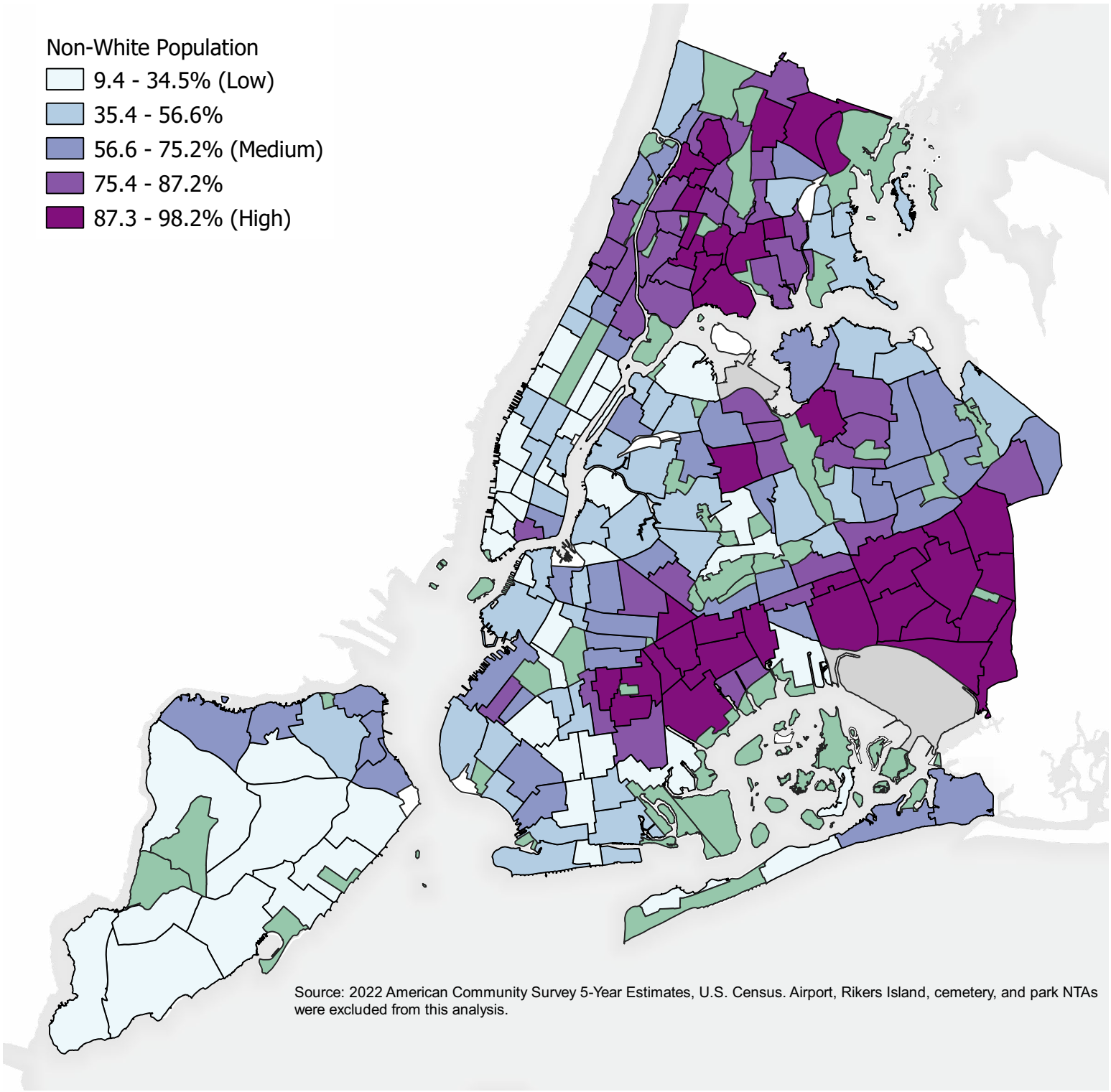
	Avg. Change in Traffic Fatalities	% Change in Traffic Fatalities	Avg. Change in Pedestrian Fatalities	% Change in Pedestrian Fatalities	Post-Vision Zero Pedestrian Fatalities	% of Post-Vision Zero Pedestrian Fatalities	Pre-Vision Zero Pedestrian Fatalities	% of Pre-Vision Zero Pedestrian Fatalities
Low Poverty	-2.6	-22%	-1.5	-25%	254	23%	338	24%
Medium Poverty	-3.1	-18%	-2.6	-25%	530	49%	704	49%
High Poverty	-2.8	-16%	-2.5	-24%	283	26%	372	26%
Very High Poverty	-2.5	-16%	-3.3	-34%	117	12%	176	12%

SIP Miles & Street Miles by Non-White Population

Neighborhoods with the highest concentration of non-white residents have seen more street redesign work per mile of street.

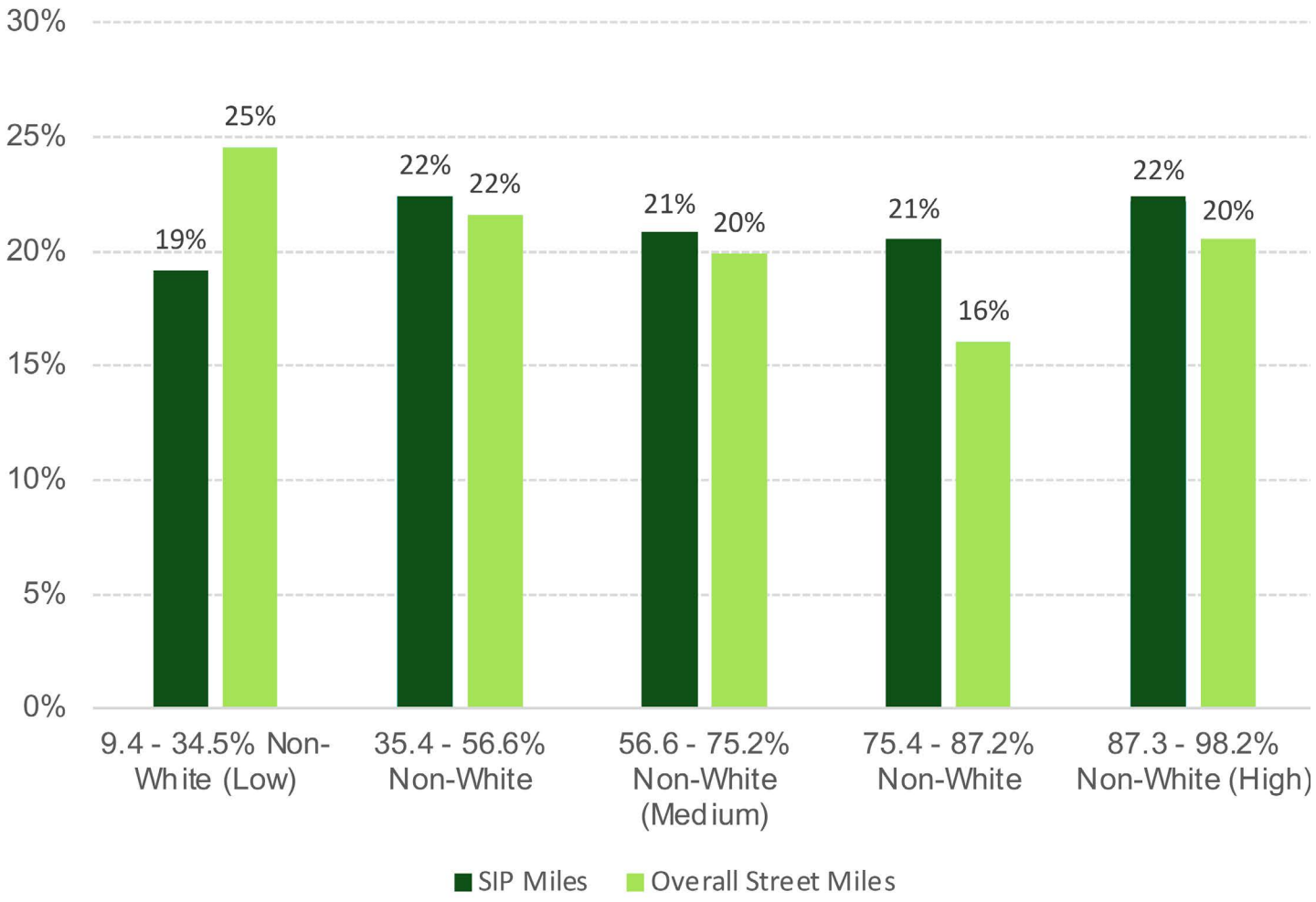
New York City Non-White Population

By NYC Dept. of City Planning Neighborhood Tabulation Area



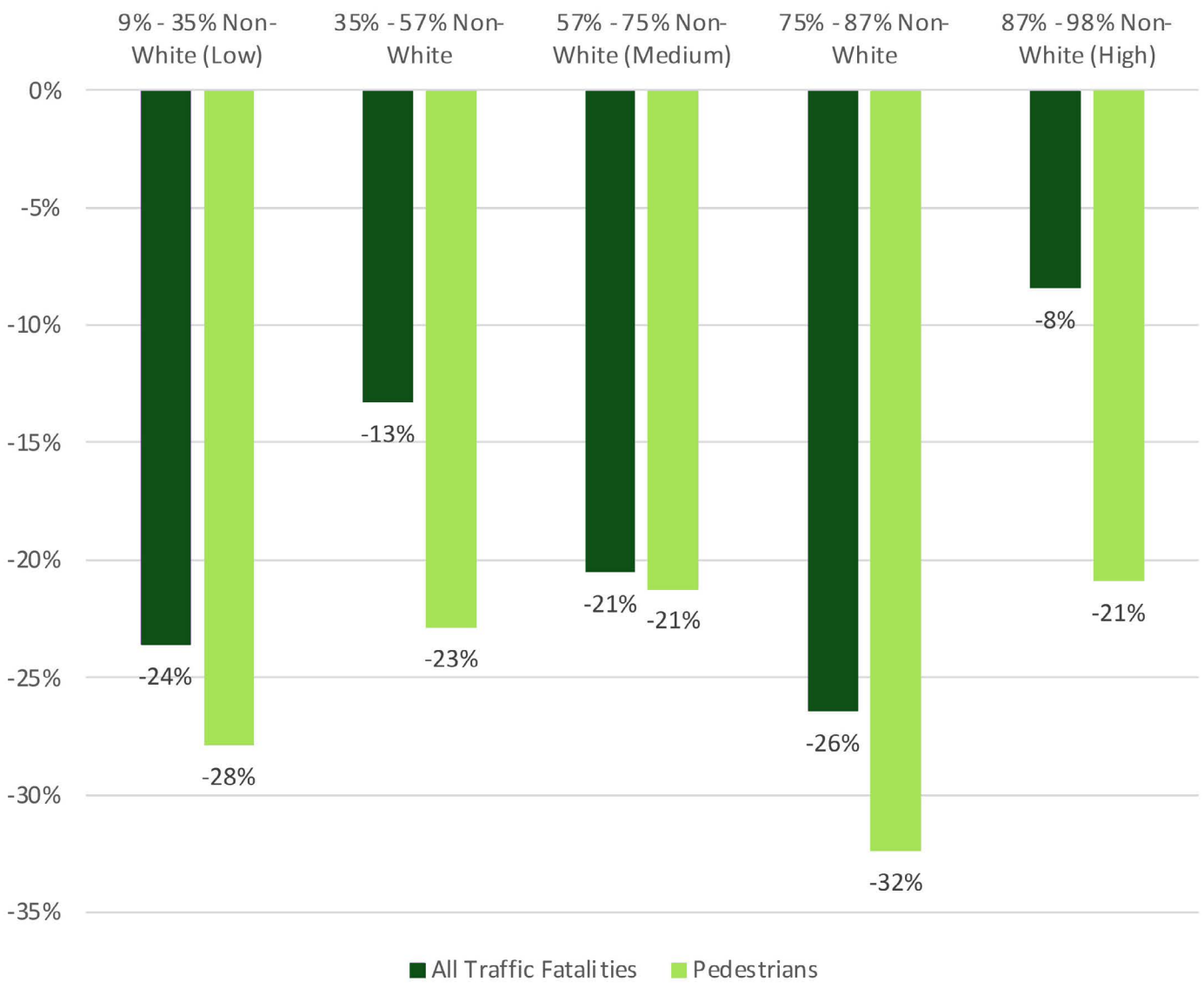
Source: 2022 American Community Survey 5-Year Estimates, U.S. Census. Airport, Rikers Island, cemetery, and park NTAs were excluded from this analysis.

SIPS and Street Miles By Asian, Black, Hispanic Population



On average, neighborhoods with the highest shares of Asian, Black and/or Hispanic residents contain 22% of citywide SIP miles and 20% of citywide street mileage. In contrast, neighborhoods with the highest shares of White residents contain 19% of citywide SIP miles and 25% of citywide street mileage.

Change in Fatalities by Share of Non-White Population



On average, neighborhoods of all races experienced declines in total and pedestrian fatalities. Neighborhoods where non-white residents made up ~80% of the population saw the sharpest declines. All fatalities were down 26%, while pedestrian fatalities were down 32%.

Non-White Population Overview + Detailed Analysis

Non-White Population Overview

	NTAs	% of NTAs	Total Population	% of Population	Poverty Polulation	% of Population in Poverty	Square Miles	% Square Miles	Street Miles	% Street Miles
9%-35% Non-White (Low)	40	20%	1,702,298	20%	440,671	8%	70	28%	1,724	25%
35%-57% Non-White	40	20%	1,712,072	20%	776,246	14%	51	20%	1,513	22%
57%-75% Non-White (Medium)	39	20%	1,702,560	20%	1,128,851	21%	48	19%	1,395	20%
75%-87% Non-White	39	20%	1,753,280	20%	1,433,655	27%	35	14%	1,125	16%
87%-98% Non-White (High)	39	20%	1,742,854	20%	1,606,689	30%	48	19%	1,434	20%

Non-White Population and SIP Mileage

	SIP Miles	% of SIP Citywide Miles	Street Miles	% of Citywide Street Miles	SIP Miles / Street Miles
9%-35% Non-White (Low)	235.9	19%	1,723.9	25%	0.1
35%-57% Non-White	275.6	22%	1,513.2	22%	0.2
57%-75% Non-White (Medium)	254.7	21%	1,394.6	20%	0.2
75%-87% Non-White	252.2	21%	1,125.4	16%	0.2
87%-98% Non-White (High)	272.6	22%	1,433.8	20%	0.2

Non-White Population and Change in Fatalities

	Avg Change All Modes	% Change All Modes	Avg Change Pedestrian Fatalities	% Change Pedestrian Fatalities	Post-Vision Zero Pedestrian Fatalities	% of Post-Vision Zero Fatalities	Pre-Vision Zero Pedestrians Fatalities	% of Pre-Vision Zero Pedestrian Fatalities
9%-35% Non-White (Low)	-4	-24%	-2.8	-28%	248	23%	344	24%
35%-57% Non-White	-2.2	-13%	-2.2	-23%	280	26%	363	25%
57%-75% Non-White (Medium)	-2.8	-21%	-1.9	-21%	253	23%	321	22%
75%-87% Non-White	-3.5	-26%	-2.9	-32%	209	19%	309	22%
87%-98% Non-White (High)	-1.6	-8%	-1.9	-21%	231	21%	292	20%

Appendix: Methodology

This report was prepared using demographic data from 2022 5-year US Census ACS data (Table S1701: Poverty Status in the Past 12 Months; Table B0200: Race; Table B03003: Hispanic or Latino Origin). Census tract data is aggregated into Neighborhood Tabulation Areas ("NTAs"). With the exception of Population in Poverty, NTAs are grouped into quintiles by percentage of demographic (i.e. to study the range of low to high concentration neighborhoods for each demographic group). Population in Poverty is categorized based on NYCDOHMH's 2013 report, "Selecting and Applying a Standard Area-based Socioeconomic Status Measure for Public Health Data: Analysis for New York City."

The Street Improvement Projects ("SIP") analyses determine the percentage of all SIP mileage from 2014 – 2023 implemented in neighborhoods in each demographic category as compared to the percentage of street mileage in that category. The change in fatalities analyses compare the percent change of pedestrian and all modes fatalities from 2004 – 2013 ("Pre-Vision Zero") to 2014 – 2023 ("Post-Vision Zero") for each demographic category.