

NJSEA | Meadowlands Action Plan for Safety (MAP4S)

Safety Task Force Meeting #3

September 25, 2024









Project Team





Project ManagementAnthony Durante, Senior Associate



Data Collection & Analysis

Matthew Maher, Senior Associate





Outreach & Engagement

Jessie Cohen, Outreach Lead

SAFETY TASK FORCE









Safety Task Force Members

THANK

Municipalities

- Carlstadt Hernan Lopez, OEM Director
- East Rutherford Francis Joseph Jr., OEM Director
- Jersey City Lyndsey Scofield, Senior Transport Planner
- Kearny **Stephen Marks**, Town Administrator
- Little Ferry Lisette M. Duffy, Borough Administrator
- Lyndhurst **Michael Carrino**, Police Captain
- Moonachie Richard Behrens, Chief of Police
- North Arlington Stephen Lolacono, Borough Administrator
- North Bergen **Janet Castro**, Town Administrator, and **Robert Farley**, Chief NBPD
- Ridgefield Borough Joe Greco, OEM Director, and Kenny Sheridan, Deputy Chief of Police
- Rutherford Robert Kakoleski, Borough Administrator, and Anthony Bachmann, Traffic Bureau Coordinator
- Secaucus Lieutenant Martin Moreda, Director of Traffic Bureau
- South Hackensack Michael J. Ward, OEM/Safety Coordinator, and Robert Chinchar, Police Chief
- Teterboro Nicholas Saros, Municipal Manager

Counties

- Bergen County Peter Kortright, Principal Planner
- Hudson County Francesca Giarratana, Dept. Deputy Director

Transportation Agencies

- EZ Ride Avnish Gupta, COO & General Counsel
- PANYNJ Kevin Walkes, Traffic Engineer
- NJSEA Christopher Stefanacci, Director of Public Safety
- NJ Turnpike Authority (NJTA) Janet Sharkey, Supervising Engineer, Traffic
- NJTPA Lois Goldman, Director of Long-Range Transportation Planning
- NJ TRANSIT Michael Viscardi, Director Programmatic Planning

Non-Profit Organizations & Businesses

- Bike North Bergen Johan Andrade, President
- Hackensack Meridian Health Elizabeth Koller, VP Administrator IHSC Operations
- Hartz Mountain Industries Grant Lewis, VP of Site Development and Engineering
- HRP Group Jeremy Grey, Executive VP of Industrial Development
- Kearny Public Schools **Mark Bruscino**, Director of Operations
- Meadowlands Chamber of Commerce James Kirkos, CEO, and Judy Ross, Senior Director of Operations
- NJ Bike Walk Coalition Debra Kagan, Executive Director









Agenda



- STF Role, Meetings
- Community Outreach Update
- Safety Assessment Tool
- High Injury Network Development
- Next Steps





Safety Task Force (STF)

Role:

- Participate in STF meetings and surveys
- Provide input on topics concerning the project
- Provide feedback on planned community engagement activities and assist in outreach facilitation
- Identify local stakeholders for additional input
- Provide feedback on project materials, safety recommendations, and SAT
- Provide feedback on final report

Meeting #1 - *March 27, 2024*

 Kickoff meeting to introduce project, desired outcomes, outreach activities

Meeting #2 – *June 20, 2024*

Outreach plan, Preliminary data findings

Meeting #3 – Today

Outreach findings, Safety Assessment Tool introduction, High Injury Network

Meeting #4 – December 2024 (in-person)

 List of preliminary safety projects and prioritization methodology

Meeting #5 – March 2025

Policy assessment

Meeting #6 – May 2025

Safety Assessment Tool

Meeting #7 – June/July 2025

Final presentation



















Summary of Outreach Efforts

- MAP4S website
- Online interactive map/survey
- 4 "pop-up" public events
- 1 mobile "pop-up" event
- 3 virtual Focus Group meetings
- 7 Safety Task Force meetings

















Pop-Up Events: Summary

3 of 5 pop-up events complete

Kearny Farmers Market: July 25

- Engaged with ~25 members of the public
- Surveys completed: 9 survey

Kearny National Night Out: August 13

- Engaged with ~60 members of the public
- Surveys completed: 28 surveys

Rutherford National Night Out: August 20

- Engaged with ~30 members of the public
- Surveys completed: 15 surveys

Next:

- North Arlington Fair: September 28, 12-3pm
- Final event TBD northern area of District?











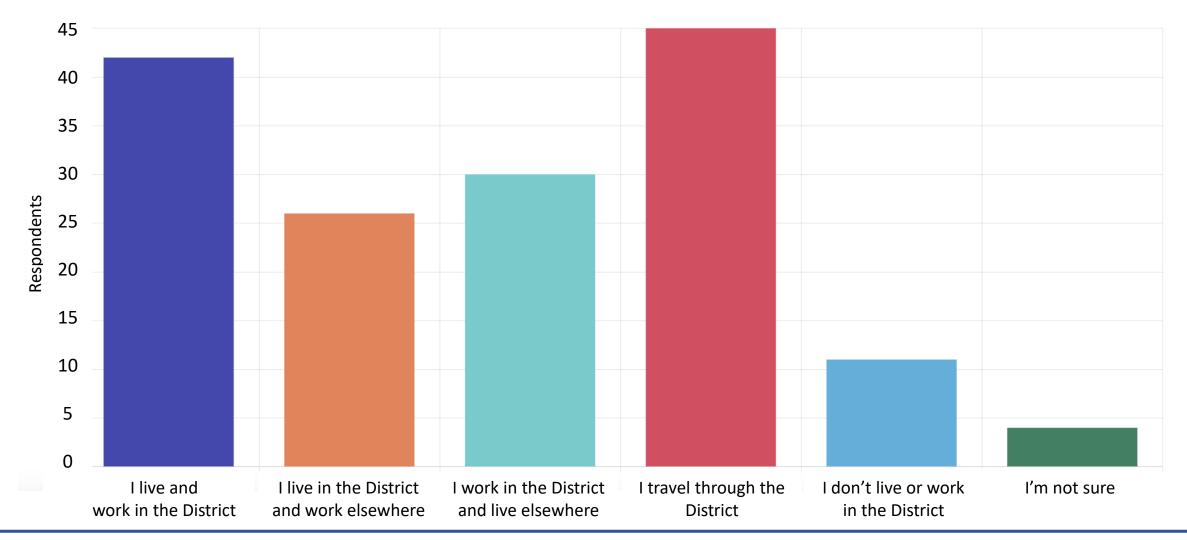






Pop-Up Events: What We Heard So Far

1. Do you live in, work in, and/or travel through the Hackensack Meadowlands District?







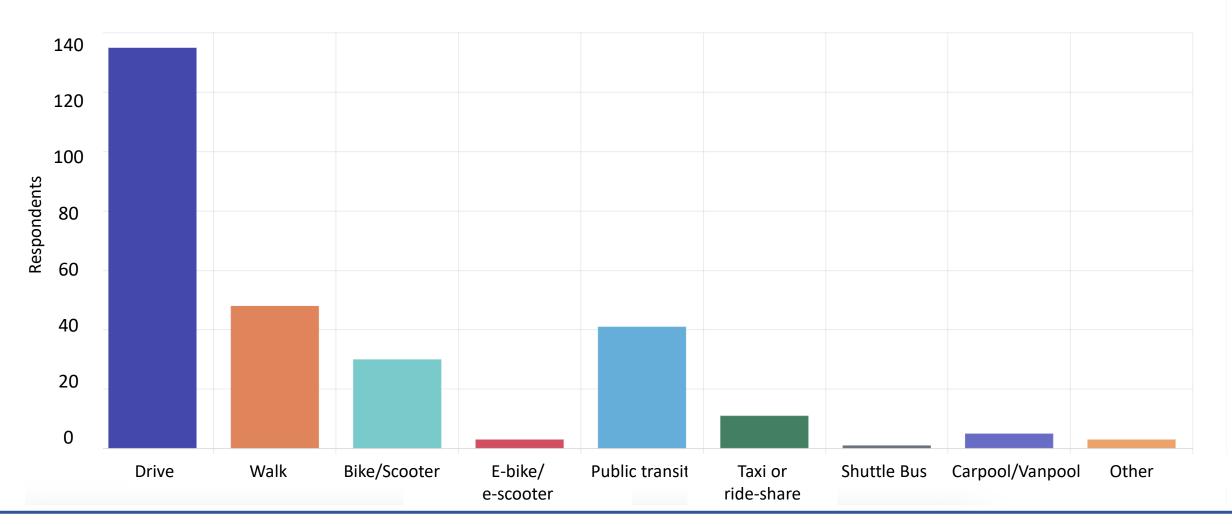






Pop-Up Events: What We Heard So Far











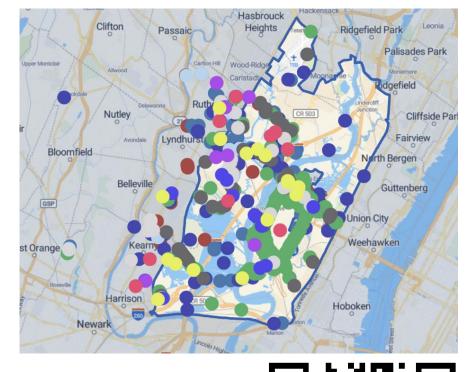


Online Mapping Tool/Survey: Feedback So Far

163 total respondents

Input types and number of responses for each:

- Bike paths and facilities do not exist, need improvement, or are disconnected (227)
- Aggressive driver behavior (75)
- Speeding (70)
- Sidewalks do not exist, need improvement, or are disconnected (54)
- Difficult pedestrian crossing (37)
- Red light or stop sign running (20)
- Limited driver visibility, due to roadway alignment and/or obstructions (15)
- Lighting/security at night (11)
- No bus shelter or amenities (9)
- Turning conflicts (8)



Share your input! (Map closing in November)











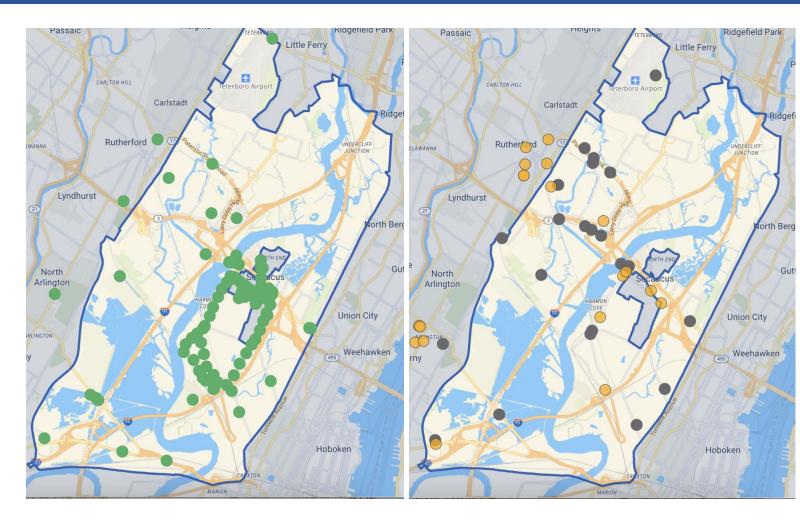




Feedback So Far: Bike Paths and Sidewalks

Pedestrian and Bike Access

- Add sidewalks and bike lanes
- Add yield to pedestrian signs
- Pedestrian signals don't work in some places
- Better marked crosswalks
- Provide walk/bike access to MetLife and American Dream
- Consider unused rail easements for ped/bike access



Lack of bike paths & facilities (95)

Lack of sidewalks (24)

Difficult pedestrian crossing (23)











Feedback So Far: Speeding, Security, Public Transit

Speeding

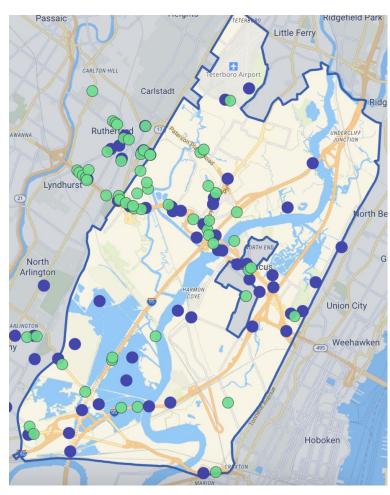
- Add speed humps near all schools and four-way stops
- Implement road diets and speed limit flashing signs

Security and Enforcement

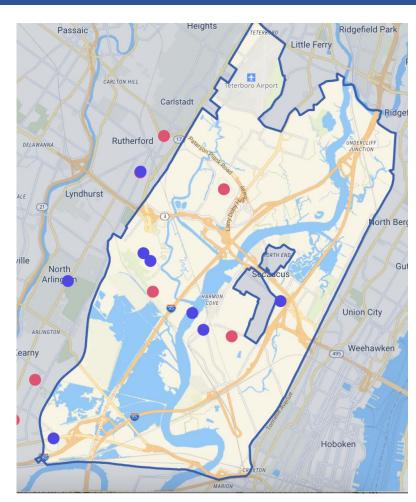
- Add cameras
- More physical security presence
- Enforce laws and speed limits
- Have an app where drivers can report speeding/aggressive behavior to the police

Public Transit

- Make buses faster and more frequent
- Add bus shelters



Aggressive driving behavior (64) Speeding (62) (specifically on Route 3, 17, Turnpike)



No bus shelter or amenities (7) Lighting/security at night (8)











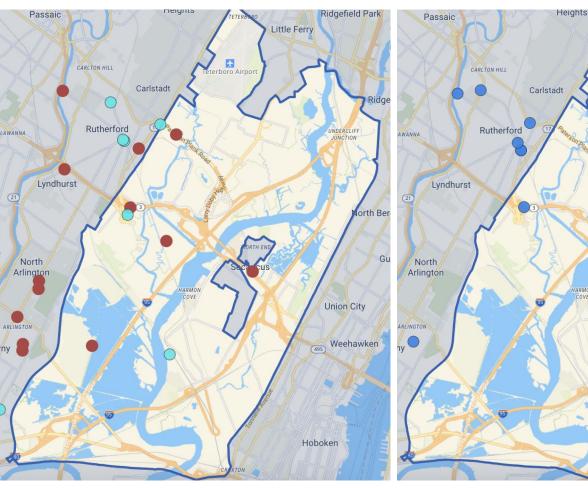
Feedback So Far: Driving Conflicts, Roadway Conditions, Visibility

Signage and Visibility

- More signage
- Improved street conditions
- Cut back trees along 120 so you can see the signs

Traffic and Driving

- 495 has too much traffic, hard to merge
- Most people drive very slowly, this forces faster drivers to make unsafe maneuvers around them and leads to congestion



Red light or stop sign running (13)

Turning conflicts (7)

Limited driver visibility (13)









Hoboken

Union City

Weehawken

Little Ferry

Coming Up: Focus Groups

October 2024

Three invitation-only virtual meetings with breakout rooms to facilitate targeted discussions with:

- 1. Mayors
- 2. Engineers, planners, agencies, businesses, nonprofit organizations
- 3. Schools, emergency responders, police

Discussion topics:

- Current safety issues
- Potential strategies to address roadway safety
- Effective community-led initiatives
- Collaboration opportunities across disciplines/municipalities













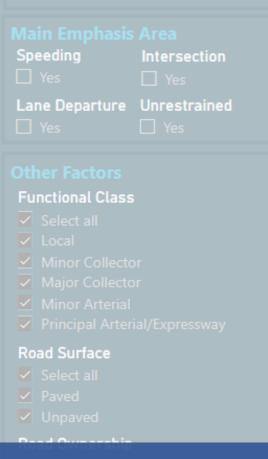


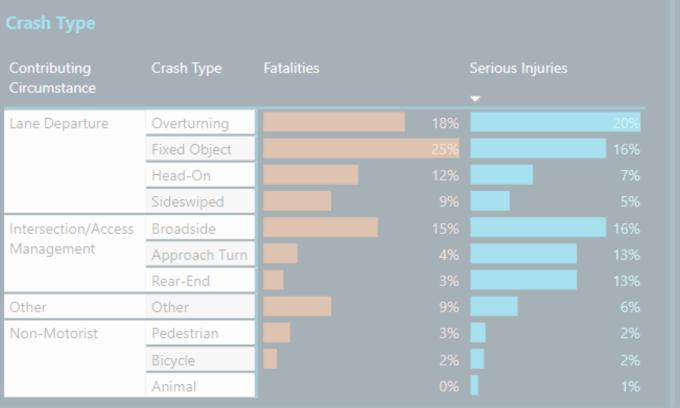


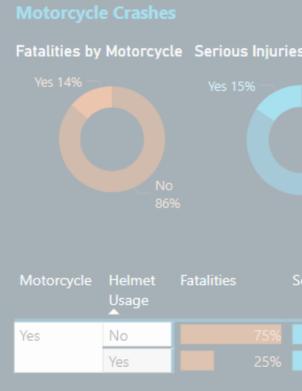












Safety Assessment Tool

Impaired

Year
All

27.23% Serious Iniuri 52.68% Eatalitie

20.14% Serious 33.04% ies Fatalitie 48.48% Serious Injuries

64.35% Injuries Fatalitie

Unrestrained

32.53% Serious In

Serious Injuries

/es

67.47%

Serious Inju

6 72.8 s Injuries Fata







35.65%





Purpose of Safety Assessment Tool (SAT)

- Create a tool for NJSEA and municipal staff and decision makers to assess the impact of projects
- Identify potential countermeasures and calculate benefits
- Track strategies and actions from MAP4S
- Provide a repository to review and upload safety data
- Map relevant priority locations, focus areas, and related data









SAT Development Schedule

- Draft design document
- Draft SAT development
- Review, updates
- Final SAT deployment
- Virtual training session for STF members

October 2024

November 2024-January 2025

February-April 2025

May 2025

May/June 2025









Discussion

- Are there other specific datasets that should be included?
 - Beyond crashes, roadway inventory, traffic volumes, CMFs?
- What is the easiest way for users to upload data (Excel, GIS, etc.)?
- Are there other outputs besides before/after assessments of priority locations that would be useful?
 - High-risk locations, benefit-cost for countermeasures, crash statistics, equity priority area overlap?
- Are there preferred interfaces that would be easier to maintain and update?



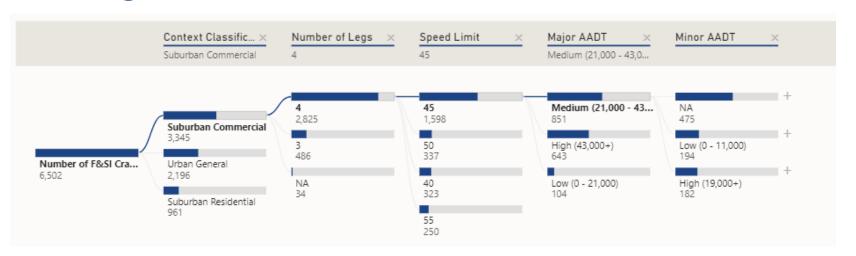






SAT Next Steps

- Circulate questions for further input
- Develop design document with options & recommendations
- Draft preliminary framework
- Review and test with STF members
- Virtual training































Overview

Use historic crash data to evaluate safety along the District roadway network and identify:

- Geometric and operational features ("risk factors")
 associated with an increased risk of crashes resulting in
 injuries and fatalities
- Candidate locations for targeted safety treatments
 - High Injury Network (HIN)









Approach

Score roadway network by crash frequencies & severities
Equivalent Possible Injury (EPI)
Scoring



Identify high-risk roadway features of top scoring segments



Categorize roadway network by functional classes and use top scoring segments by category to **define HIN**











Approach

Score roadway network by crash frequencies & severities
Equivalent Possible Injury (EPI)
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Identify high-risk roadway features of top scoring segments



Categorize roadway network by functional classes and use top scoring segments by category to define HIN







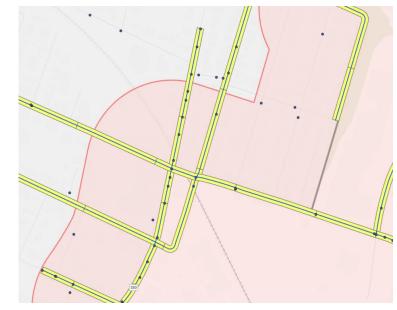


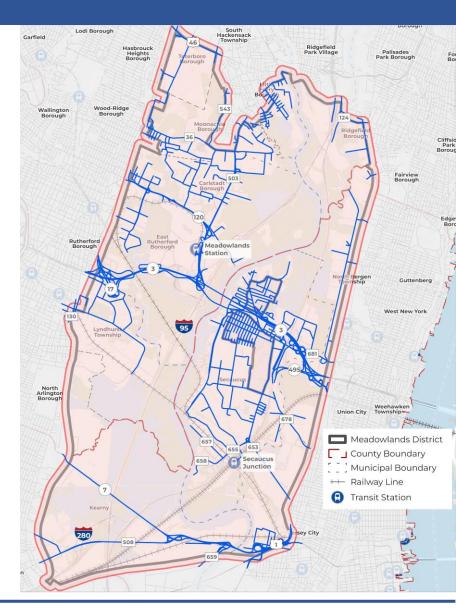


Data Inputs and Extents

- Crash data, 2017-2021
 - Sources: Safety Voyager & Numetric
 - KABC crashes: fatal, severe, moderate, and possible injury crashes
- NJ road centerlines (GIS)
 - Crashes within 20 ft buffer from centerlines
- District + buffer roadways (except Interstates)

















Crash Totals, 2017-2021

Crash Severity	Severity Code	Number
No Apparent Injury	0	6,644
Possible Injury	С	1,154
Suspected Minor Injury	В	430
Suspected Serious Injury	Α	71
Fatal Injury	K	18
Total		8,317







Equivalent Possible Injury (EPI) Scoring

- 1-mile segments comprised of 0.1-mile sub-segments
- Each 0.1 mile sub-segment gets scored using Equivalent Possible Injury (EPI) Methodology
- 1-mile segments cannot overlap









Equivalent Possible Injury (EPI) Scoring

Scoring

- KABC crashes: fatal, severe, moderate, and possible injury crashes
- Excludes PDO crashes
- Weights crashes based on severity
 - Crash values established by NJDOT
- Each 0.1-mile sub-segment scored based on total number of crashes

To determine the EPI score of an individual location, the following equation is used:

$$EPI_{Total} = (K * EPI_K) + (A * EPI_A) + (B * EPI_B) + (C * EPI_C)$$

Where:

K = the number of fatal crashes at a location EPI_K = EPI weight for fatal crashes A = the number of serious injury crashes at a location EPI_A = EPI weight for serious injury crashes B = the number of minor injury crashes at a location EPI_B = EPI weight for minor injury crashes C = the number of possible injury crashes at a location EPI_C = EPI weight for possible injury crashes

Equivalent Possible Injury (EPI) Score Weights						
Crash Severity	KABCO Scale	Comprehensive Crash Cost - 2024 Dollars*	EPI Value (K=A)			
Fatal	K	\$15,031,135	5.3			
Suspected Serious Injury	Α	\$869,407	5.3			
Suspected Minor Injury	В	\$262,449	1.6			
Possible Injury	С	\$165,401	1.0			
No Apparent Injury	0	\$15,115	-			

*Source: NJDOT Bureau of Safety, Bicycle, and Pedestrian Programs



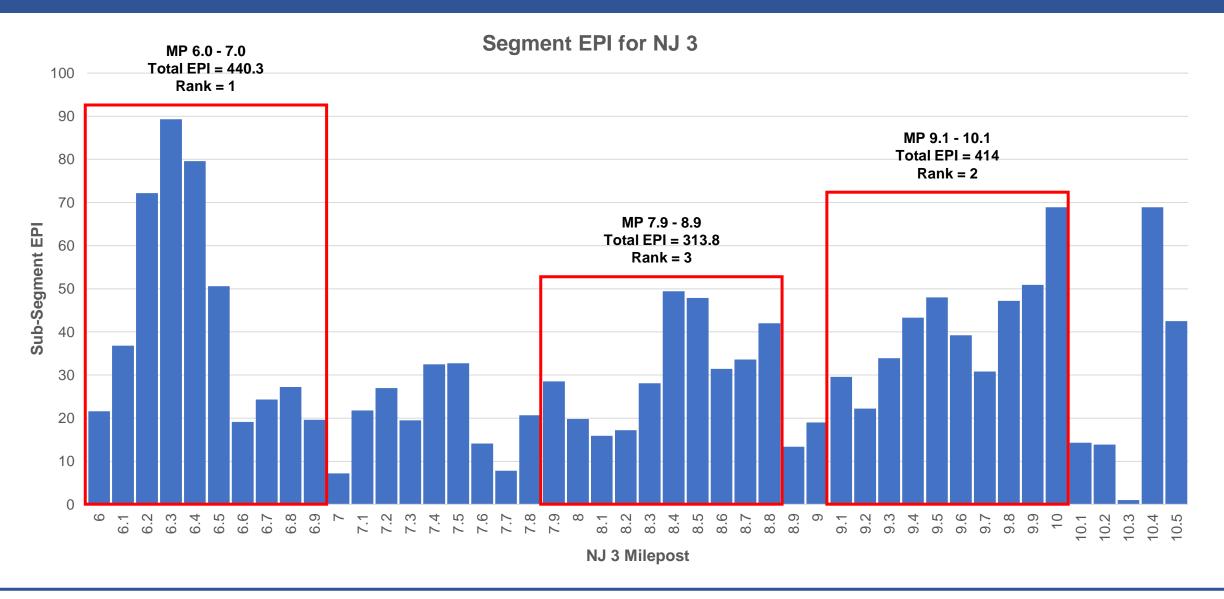








Sliding Window Methodology – Example





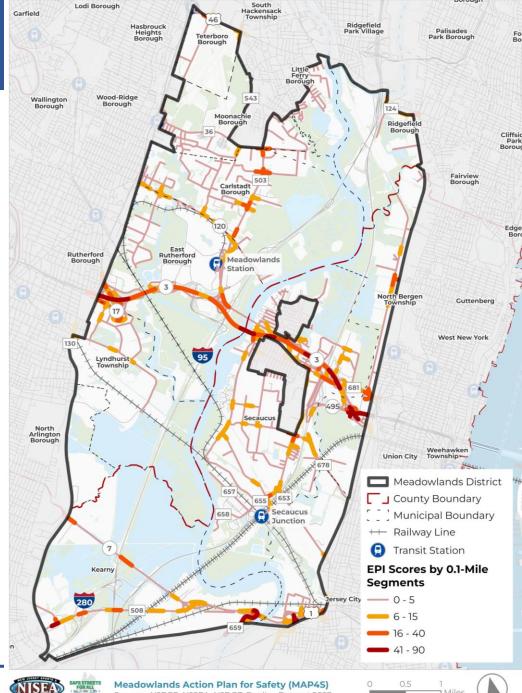






EPI Scoring Summary

Functional Class	Study Network			
	Mileage	EPI Score	Percentage	
7 – Local Roads	39.1%	500.4	10.1%	
6 – Minor Collector	5.4%	140.3	2.8%	
5 – Major Collector	9.7%	376.7	7.6%	
4 – Minor Arterial	15.1%	989	20.0%	
3 – Other Principal Arterial	11.3%	884.2	17.9%	
2 – Other Freeway/Expressway	8.7%	1986.5	40.1%	
Blank	10.5%	71	1.4%	
Total	-	4948.1	-	













Approach

Score roadway network by crash frequencies & severities Equivalent Possible Injury (EPI) Scoring



Identify high-risk roadway features of top scoring segments



Categorize roadway network by functional classes and use top scoring segments by category to define HIN











Highest Scoring Segments

- 99th percentile EPI score for subsegments = 46.5
 - 22 segments
 - Rounded up to 25 segments
- Top 25 segments identified to identify highest-risk roadway features
- Combined length of Top 25 = 17% of the study network (22.7 miles)
- Top 25 EPI score = 59% total network score

Rank	Road Name	MP Beg	MP End	EPI
1	NJ 3	6	7	440.3
2	NJ 3	9.1	10.1	414
	NJ 3	7.9	8.9	313.8
4	HUDSON COUNTY 681	3.8	4.8	193.7
5	US 1 TRUCK	0.3	1.3	143.2
6	NJ 495	0	0.9	116.4
7	NJ 17	3.2	4.2	113.3
8	NJ 120	0	1	104.6
9	ROUTE 508	13.8	14.8	104.5
10	ROUTE 503	0.6	1.6	100.3
11	US 46	68.1	69.1	80.1
12	HUDSON COUNTY 653	1.2	2.2	71.3
13	NJ 7	0	1	71
14	HUDSON COUNTY 678	0.8	1.74	65.2
15	HUDSON COUNTY 681	4.9	5.9	65
16	FR US 1 TRUCK EB TO NJ 7 NB	0	0.3	59.2
17	NJ 7	1.7	2.7	55.9
18	BERGEN COUNTY 124 I	0	0.8	55.8
19	MEADOWLANDS PKWY	0	1	55
20	HUDSON COUNTY 659	0	0.2	49.7
21	WESTSIDE AVE	0	1	48.6
22	SECAUCUS RD	0	1	48.4
23	NJ 7	2.8	3.8	45.1
24	BERGEN AVE	1	1.57	43.2
25	ROUTE 508	15	16	42.1





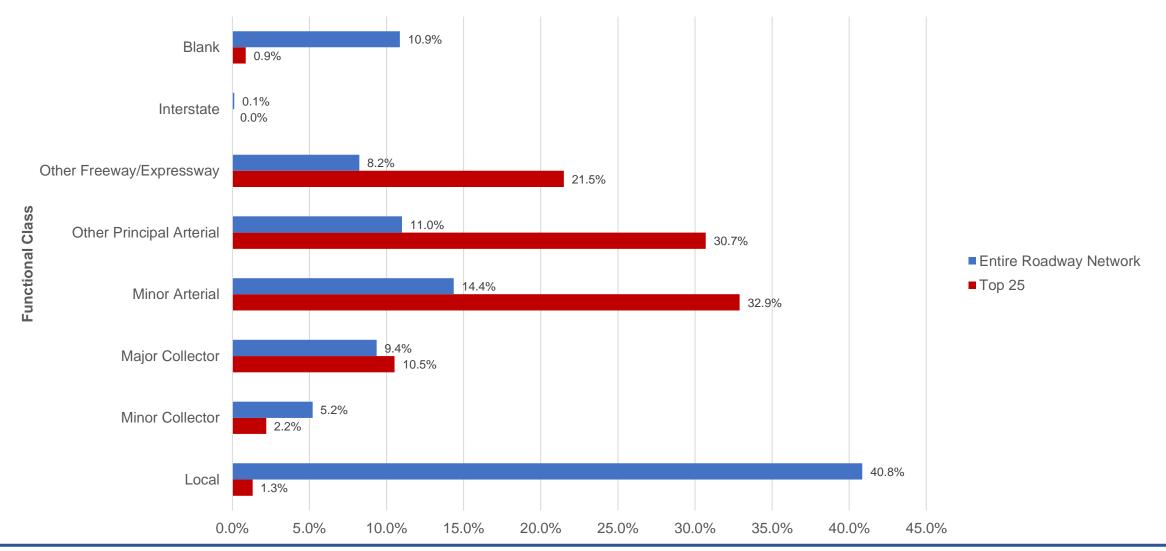






Comparison: Functional Classification







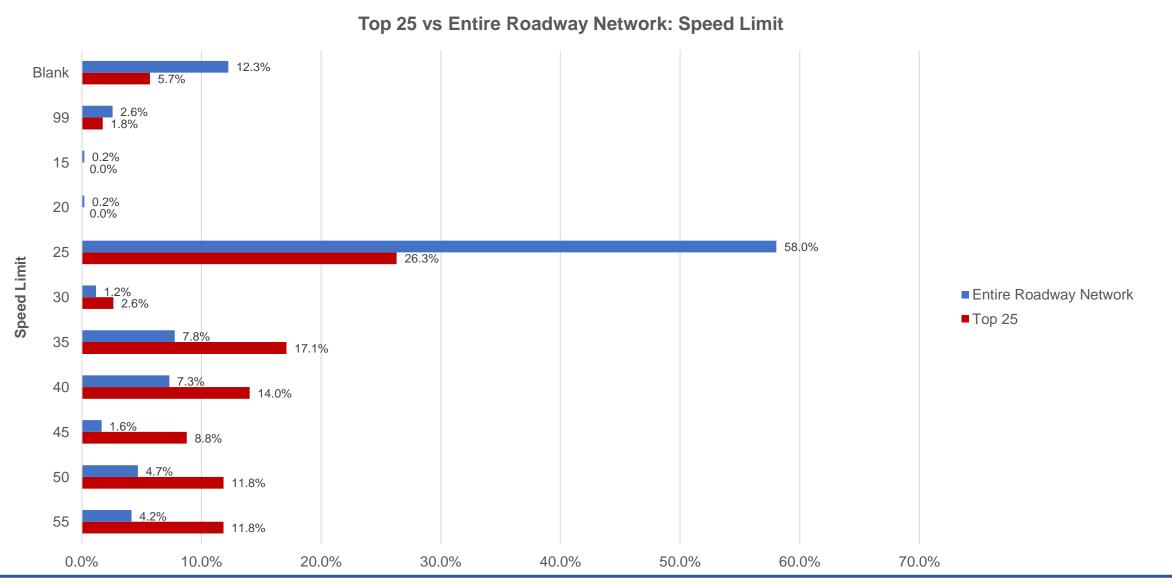








Comparison: Posted Speed Limit







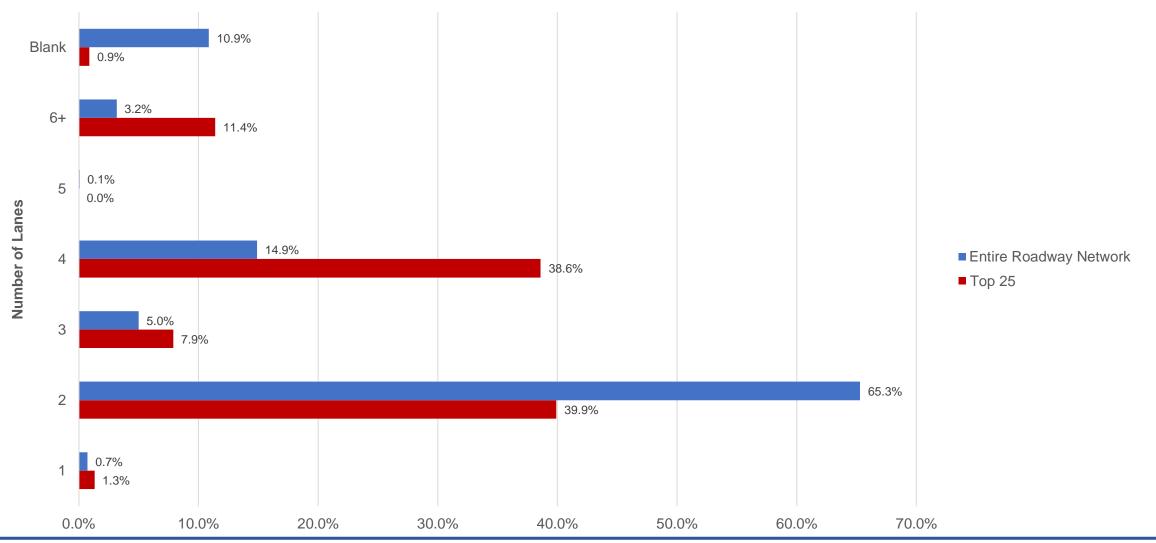






Comparison: Number of Lanes







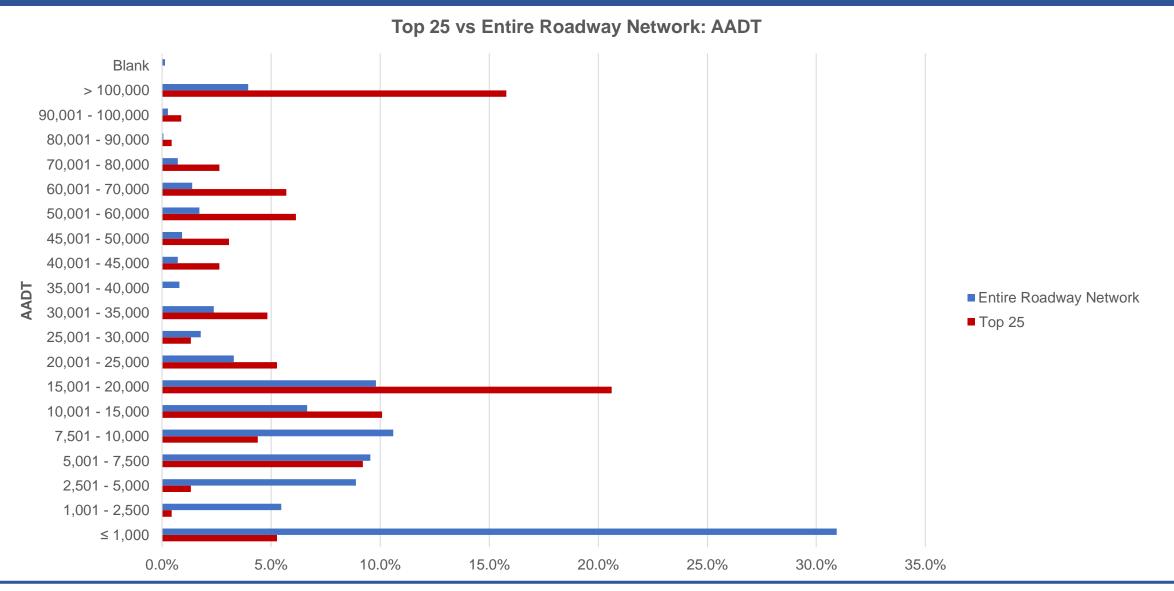








Comparison: Traffic Volume





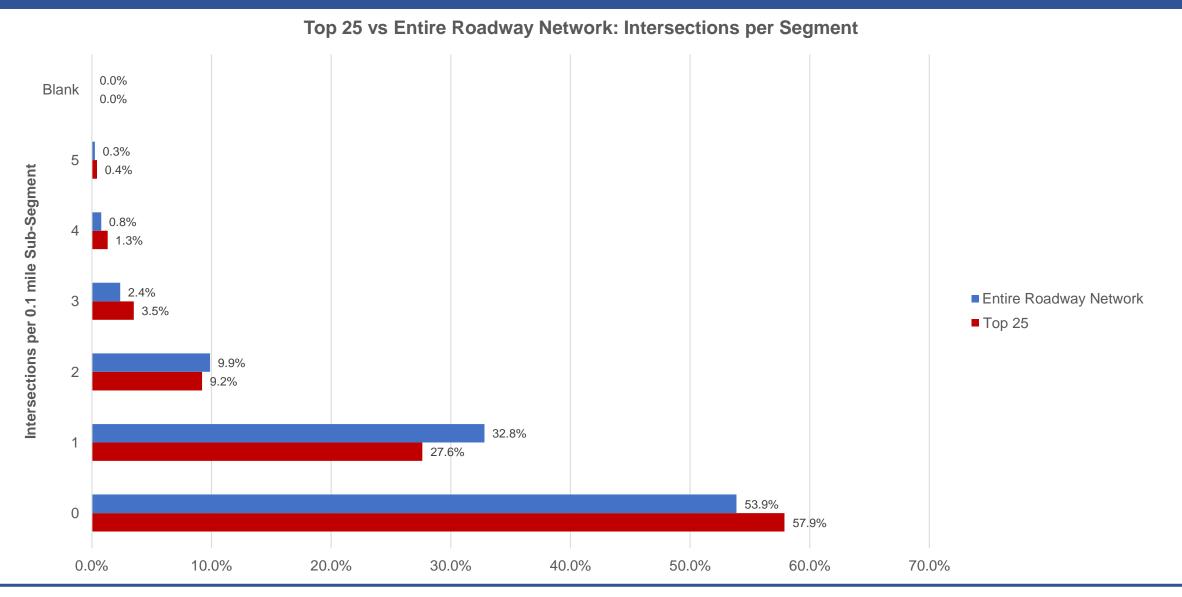








Comparison: Intersections per Sub-Segment





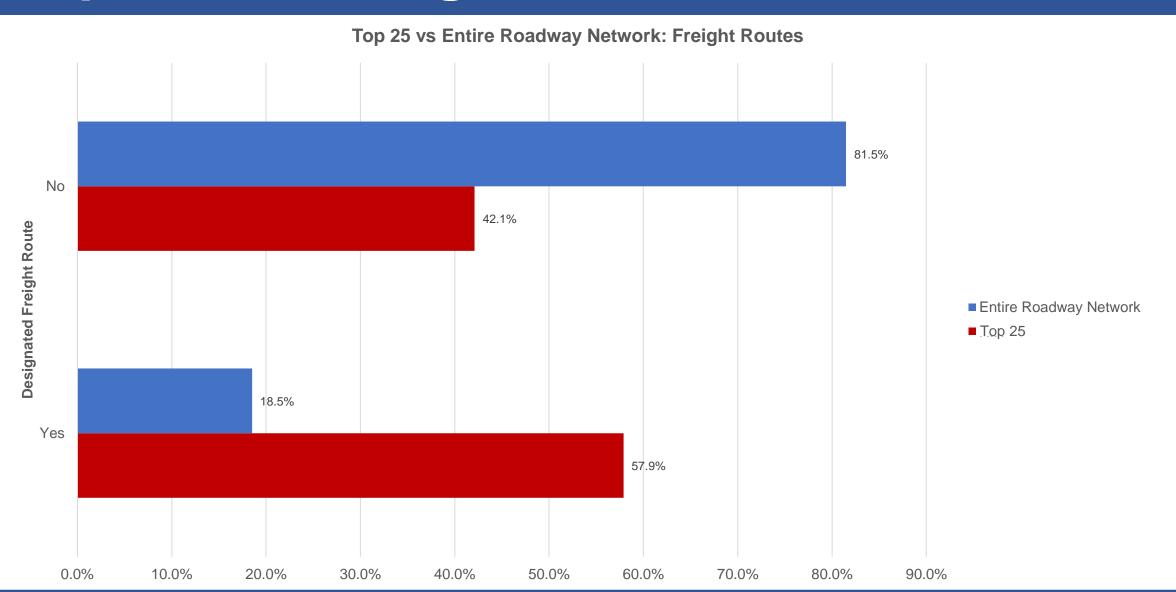








Comparison: Freight Routes













Summary of High-Risk Roadway Features

Highest Risk Roadway Features

- Posted speeds at/above 35 mph
- 3+ travel lanes
- Higher volumes (>10K)
- Truck route











Approach

Score roadway network by crash frequencies & severities Equivalent Possible Injury (EPI) Scoring



Identify high-risk roadway features of top scoring segments



Categorize roadway network by functional classes and use top scoring segments by category to **define HIN**











Roadway segments categorized by Functional Classification

Freeways/ Expressways



Principal & Minor Arterials



Collectors & Local Roads



Categorization allows multiple functional classes to be included in HIN











Roadway segments categorized by Functional Classification

Freeways/ Expressways



Principal & Minor Arterials



Collectors & Local Roads



- Does not include interstates
- Directional travel lanes
- Usually separated by physical barrier
- Access/egress mainly limited to ramps
- · Abutting land uses not directly served











Roadway segments categorized by Functional Classification

Freeways/ Expressways



Principal & Minor Arterials



Collectors & Local Roads



- Serve major centers of metropolitan areas
- Offer more local connectivity than freeways/expressways
- Abutting land uses can be served directly by driveways, at-grade intersections
- May carry bus routes











Roadway segments categorized by Functional Classification

Freeways/ Expressways



Principal & Minor Arterials



Collectors & Local Roads



- Connect local traffic to arterials
- Serve both land access and traffic circulation
- May pass through residential neighborhoods
- Typically not intended for long distance travel











EPI Scores by Functional Classification

Functional Classification	Entire Network			
	EPI Score	Percentage		
7 – Local Roads	500.4	10.1%		
6 – Minor Collector	140.3	2.8%		
5 – Major Collector	376.7	7.6%		
4 – Minor Arterial	989	20.0%		
3 – Other Principal Arterial	884.2	17.9%		
2 – Other Freeway/Expressway	1986.5	40.1%		
1 - Interstate	0	0.0%		
Blank	71	1.4%		
Total	4948.1	-		



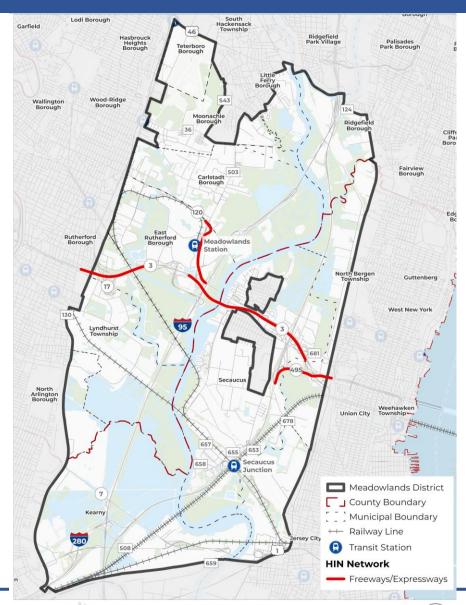






District HIN: Freeways/Expressways

- 99th percentile EPI score: 72.7
- Segments above threshold: 5



District HIN: Freeways/Expressways

Rank	Road Name	MP Beg	MP End	EPI	Included in HIN?
1	NJ 3	6	7	440.3	Yes
2	NJ 3	9.1	10.1	414	Yes
3	NJ 3	7.9	8.9	313.8	Yes
4	NJ 495	0	0.9	116.4	Yes
5	NJ 120	0	1	104.6	Yes
6	FR NJ 3 EB to RT 495 EB	0	0.17	40.5	No
7	FR NJ 3 EB to UNKNOWN	0	0.1	36.2	No
8	FR NJ 3 EB to PATTERSON PLANK RD	0	0.1	29.8	No
9	FR RAMP A105730 to NJ 495 NB	0	0.1	24.2	No
10	NJ 495 SECONDARY	0	1	24.2	No
11	FR US 1 TRUCK SB to US 1 NB	0	0.05	15.8	No
12	US 1 TRUCK SECONDARY	2.9	3.9	13	No
13	FR RT 17 NB to NJ 3 EB	0.1	0.3	12.4	No
14	NJ 17 SECONDARY	3.6	4	10.6	No
15	FR NJ 3 EB to NJ 3 EB Ramp	0	0.02	9.4	No
16	US 1 SECONDARY	56.3	57.3	7.6	No
17	NJ 3 EXPRESS	9.2	10.2	6.3	No
18	FR US 1 NB to RT 3 WB EXPRESS	0	0.57	6	No
19	FR NJ 3 EB to MEADOWLANDS PKWY SB	0	0.1	5.3	No
20	FR NJ 3 WB to MEADOWLANDS PKWY NB	0	0.1	5.3	No



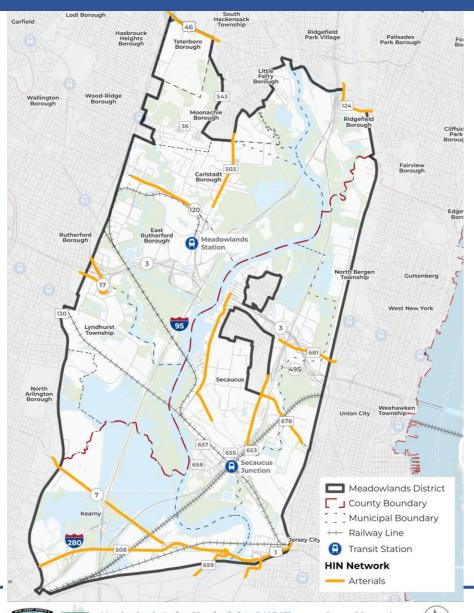






District HIN: Arterials

- 99th percentile EPI score: 35.4
- Segments above threshold: 17











District HIN: Arterials

Rank	Road Name	MP Beg	MP End	EPI	Included in HIN?
1	HUDSON COUNTY 681	3.8	4.8	193.7	Yes
2	US 1 TRUCK	0.3	1.3	143.2	Yes
3	NJ 17	3.2	4.2	113.3	Yes
4	ROUTE 508	13.8	14.8	104.5	Yes
5	ROUTE 503	0.6	1.6	100.3	Yes
6	US 46	68.2	69.1	80.1	Yes
7	HUDSON COUNTY 653	1.2	2.2	71.3	Yes
8	NJ 7	0	1	71	Yes
9	HUDSON COUNTY 678	0.8	1.74	65.2	Yes
10	NJ 7	1.7	2.7	55.9	Yes
11	BERGEN COUNTY 124 I	0	0.8	55.8	Yes
12	MEADOWLANDS PKWY	0	1	55	Yes
13	HUDSON COUNTY 659	0	0.2	49.7	Yes
14	NJ 7	2.8	3.8	45.1	Yes
15	ROUTE 508	15	16	42.1	Yes
16	NJ 120	1.3	2.3	39.6	Yes
17	MEADOWLANDS PKWY	1.1	2.1	35.9	Yes
18	HUDSON COUNTY 655	0	0.4	32.1	No
19	BERGEN COUNTY 130	2	2.4	28.2	No
20	BERGEN COUNTY 36	0.9	1.87	26.4	No





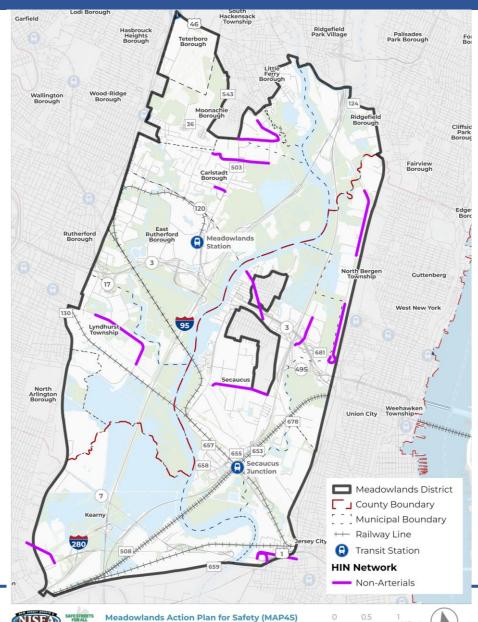






District HIN: Collectors & Local Roads

- 99th percentile EPI score: 20.2
- Segments above threshold: 13













District HIN: Collectors & Local Roads

Rank	Road Name	MP Beg	MP End	EPI	Included in HIN?
1	FR US 1 TRUCK EB TO NJ 7 NB	0	0.1	57.2	Yes
2	WESTSIDE AVE	0	1	48.6	Yes
3	SECAUCUS RD	0	1	48.4	Yes
4	BERGEN AVE	1	1.57	43.2	Yes
5	HUDSON COUNTY 681	5.4	6.1	30.2	Yes
6	WESTSIDE AVE	0.3	1.25	29.6	Yes
7	STATE ST	0	1	27	Yes
8	ST PAULS AVE	0	0.7	26.5	Yes
9	VALLEY BROOK AVE	0.3	1.3	26.5	Yes
10	VETERANS BLVD	0	0.17	25.7	Yes
11	HARMON MEADOW BLVD	0	0.51	22.8	Yes
12	COMMERCE BLVD	0	0.46	22	Yes
13	COMMERCE BLVD	0	0.48	22	Yes
14	69TH ST	0.1	0.26	19.5	No
15	CENTER AVE	0	0.86	19.4	No
16	MURRAY HILL PKWY	0.2	1.12	18.8	No
17	INDUSTRIAL AVE	0.8	1.77	18.7	No
18	PARK PL	0	1	17.8	No
19	POLITO AVE	0	0.55	15.7	No
20	NNP	0	0.28	15.6	No



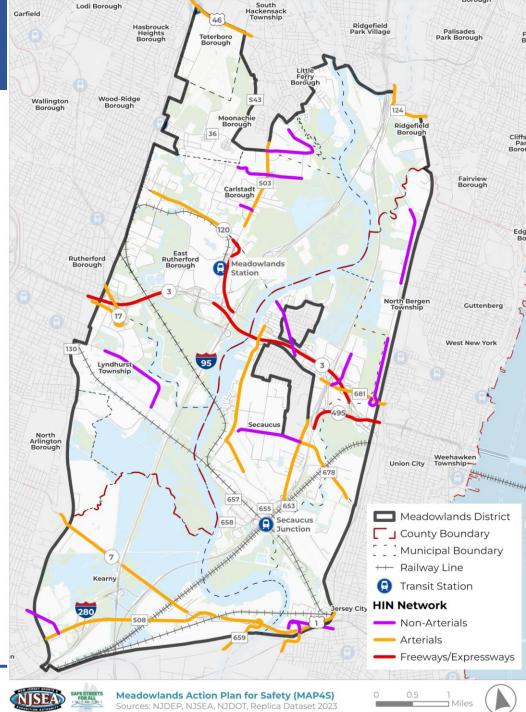






HIN Summary

Summary	# of Segments	Length
Freeways/Expressways	5	4.9
Arterials	17	15.84
Collectors & Local Roads	13	8.64
TOTAL	35	29.38



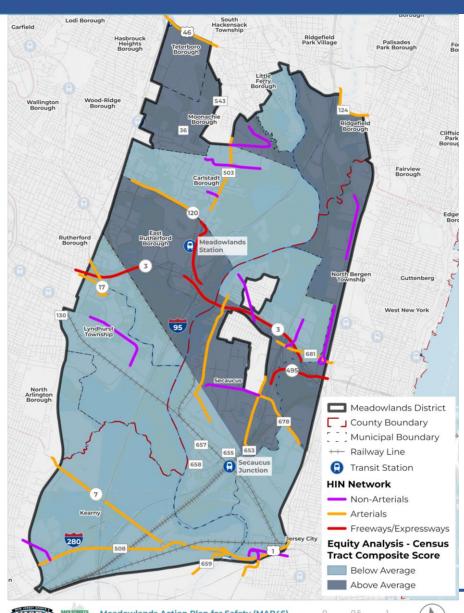




Comparison to Underserved Communities

Roadway segments at/intersecting with underserved communities*

- NJ 3
- NJ 495
- West Side Ave (North Bergen)
- County Ave (CR 653)
- Secaucus Road (CR 678)
- Paterson Plank Rd (CR 681 and NJ 120)
- Meadowlands Parkway (Secaucus)
- Route 46 (Teterboro)
- State St / Empire Blvd (Moonachie)
- Hendricks Causeway (Rt 124) (Ridgefield Boro)







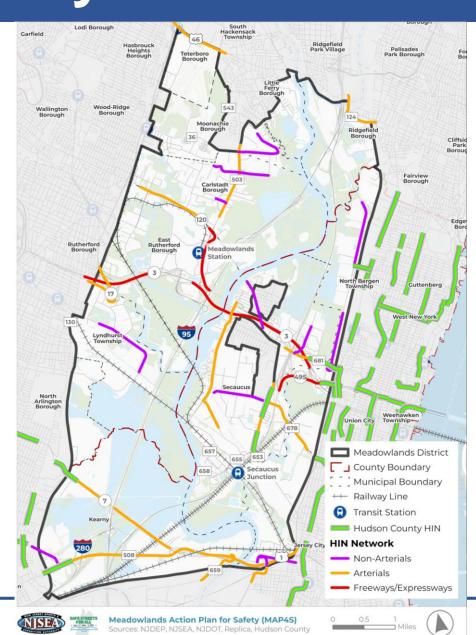


^{*}Identified using NJTPA Equity Analysis composite scores

Comparison to Hudson County HIN

Roadway segments in MAP4S & **Hudson County Vision Zero**

- NJ 7 (Kearny)
- Harrison Ave (CR 508)
- County Ave (CR 653)
- NJ 495
- Paterson Plank Rd (CR 681)

















Next Steps

- Focus Group meetings October 2024
- Complete public engagement activities and close survey/map
- Begin developing prioritization methodology for HIN
- Draft NJSEA Safe System policy
- Begin development of Safety Assessment Tool
- Next STF meeting: December 2024 (date TBD)











