WAREHOUSE BOOM PLACES UNEQUAL HEALTH BURDEN ON NEW YORK COMMUNITIES

Just-in-time delivery has fueled an explosion of warehouses and truck trips in the United States. While this infrastructure has long existed in certain parts of the country — specifically port communities — more warehouses are now located near homes, schools and community centers than ever before. A single warehouse may generate hundreds, if not thousands, of truck trips every day.

While trucks perform an essential role in the goods supply chain, most also contribute to harmful air pollution, noise pollution and traffic and safety concerns. Goods transport is the fastest-growing driver of greenhouse gas emissions and the largest absolute contributor to emissions in many regions.[1]

Due to legacies of redlining and other discriminatory policies, new and existing distribution facilities and the roads that serve them are disproportionately located near communities of color and low-income communities. Many residents living near warehouses have been sounding the alarm for some time.[2]

To better understand the disproportionate burden associated with warehouses in New York State, EDF deployed a peer-reviewed framework called Proximity Mapping. Across New York we identified:

- **2,421 leased warehouses** that are at least 50,000 square feet.
- **4.8 million people** living within a half mile of a warehouse. 315,000 are under age five and 649,000 are over age 64.
- **Black, Hispanic/Latino and low-income populations** live near warehouses at rates that are more than 59%, 48% and 42% higher, respectively, than would be expected based on statewide statistics.
- **At least 171,000 truck trips per day** service warehouses of at least 100,000 square feet.

The results from the New York analysis mirror findings in the 10 states where EDF conducted Proximity Mapping.[3] In those states, some 15 million people live within a half mile of a leased warehouse of at least 100,000 square feet. More than 1 million of those are children under age five. No state distributed the risk from warehouses evenly. Black, Hispanic/Latino, Asian, American Indian and low-income people bear the brunt of the risk from living close to warehouses. In some states like Illinois, Massachusetts and Colorado, the concentration of Black and Hispanic/Latino residents around warehouses is double what would be expected given the state population.

A PUBLIC HEALTH THREAT FROM COAST TO COAST

EDF's warehouse analyses reflect a broader national trend. One in six U.S. residents lives within 300 feet of a major road, airport or railroad.[4] Some 17,000 schools across the U.S. are located within approximately 800 feet of a heavily traveled road.[5] A growing body of peer-reviewed research published within the last five years indicates that exposure to traffic-related air pollution (measured by

nitrogen dioxide [NO_2] exposures) increases the risk of childhood asthma. Asthma is a leading cause of missed school days and has been linked to diminished school performance.[6]

While the pollution burden may be variable, the resulting health disparities are clear and consistent – the result of decades of racist land use policies. Across the country, Black children are five times more likely to be hospitalized for asthma and eight times more likely to die from asthma, compared to non-Hispanic white children.[7]

In New York, where state regulators have referred to asthma as an epidemic, the asthma emergency department visit rate had the second highest racial disparity of all major public health issues.[8,9] Air pollution from trucks is also associated with increased health risks at other stages of life. It raises the risk of preterm birth, low birth weight, dementia, heart disease and stroke.[10,11,12]

Diesel-fueled freight trucks and buses make up around 10% of the vehicles on U.S. roads, but they are responsible for 50% of the transportation sector's nitrogen oxide emissions.[13] Diesel trucks also emit a series of other health-harming pollutants, including 57% of direct fine particulate matter ($PM_{2.5}$) from on-road vehicles, as well as volatile organic compounds, carbon monoxide and sulfur dioxide.[14] Diesel trucks emit serious pollution at start-up, while idling and while traveling at low speeds.[15] Air pollution levels vary by proximity to truck traffic, and impacts for the same level of pollution exposure vary greatly by race and age. This is due to the unequal distribution of other health-harming factors from built, natural and social environments.

METHODOLOGY

EDF's Proximity Mapping framework provides a new way to understand more about the communities living near various types of infrastructure to determine how the pollution-related risks are distributed.

This methodology uses the U.S. Census Bureau's American Community Survey five-year estimates at the census tract level and leased "Warehouse" facilities from a private real estate database compiled by the information firm, CoStar.

The inequities visualized through this tool make it clear that the burdens associated with increased truck traffic are far from equally distributed.

NEW YORK WAREHOUSES AND THEIR IMPACTS

Across New York state, we identified 2,421 leased warehouses that are at least 50,000 square feet in size, covering a collective 304 million square feet – a number that's grown 6% in the last decade (Figure 1). At least 171,000 daily truck trips service warehouses equal to or greater than 100,000 square feet.

AN UNEQUAL BURDEN

The recent e-commerce boom only exacerbated the pollution burden faced by many communities of color and low-income communities. At all levels, warehouses tend to be disproportionately located in Black, Hispanic/Latino and low-income communities.

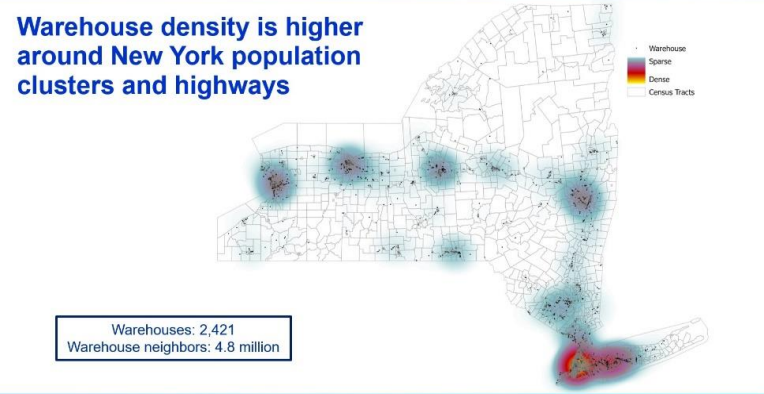

Figure 1

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

EDF research shows that NO_2 pollution – one of the main pollutants released by diesel-burning trucks – contributes to more than 21,000 new childhood asthma cases every year in the New York City metropolitan region alone (Figure 2).[16] In areas with worse pollution, NO_2 contributes to more than 30% of new asthma diagnoses.

Developing asthma changes a child's life, impacting physical, emotional and academic growth. Asthma is the leading cause of missed school days each year and has been linked to diminished school performance.[17] Nearly one in two children with asthma miss at least one day of school each year because of their asthma. In New York, approximately 10% of adults and slightly less than 10% of children have asthma, resulting in an average of 299 deaths per year from 2009 to 2019.[18]

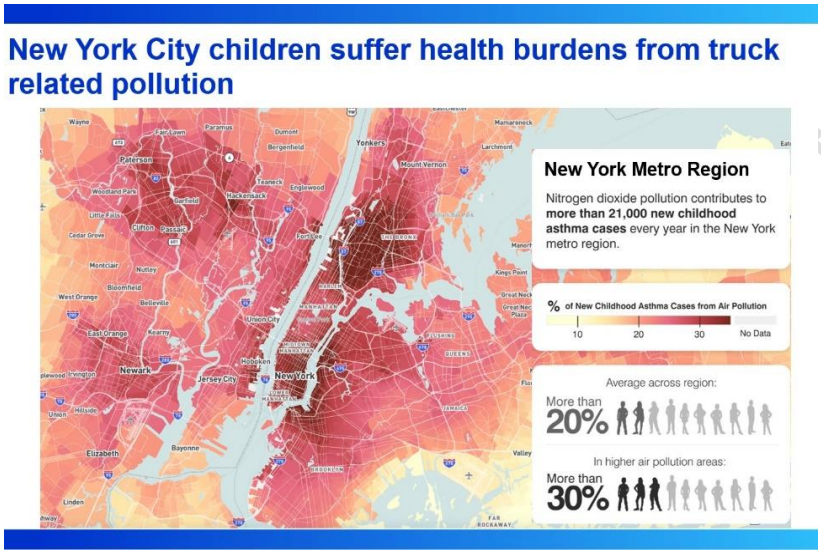

Figure 2

Across the state, Black children are nearly nine times more likely to be hospitalized for asthma and five times more likely to die from asthma compared to non-Hispanic white children.[19] According to the Centers for Disease Control and Prevention (CDC) Chronic Disease Cost Calculator, the estimated medical cost of asthma in the state was $3.5 billion in 2017.[20] The Asthma and Allergy Foundation of America's 2023 report ranked six New York cities within its top 100 for asthma prevalence, emergency department visits for asthma and deaths due to asthma.[21] Poughkeepsie, Rochester and New York City fall within the top 20 on the list.

$PM_{2.5}$ exposure from on-road mobile sources in the New York City region contributes to 320 deaths and 870 hospitalizations and emergency department visits annually, with trucks and buses – especially pre-2007 engine model year – accounting for the largest share of on-road $PM_{2.5}$.[22] The impacts are not evenly distributed: Low-income neighborhoods experience a larger share of the exposure and health burden than high-income neighborhoods.[23]

WAREHOUSES AND NEARBY RESIDENTS BY REGION

The Five Boroughs

In the five boroughs (Figure 3), EDF analysis found:

- **3 million people** live within half a mile of a warehouse.
- **Black residents** are 17% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.
- **Hispanic/Latino residents** are 13% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.
- **Low-income residents** are 19% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.

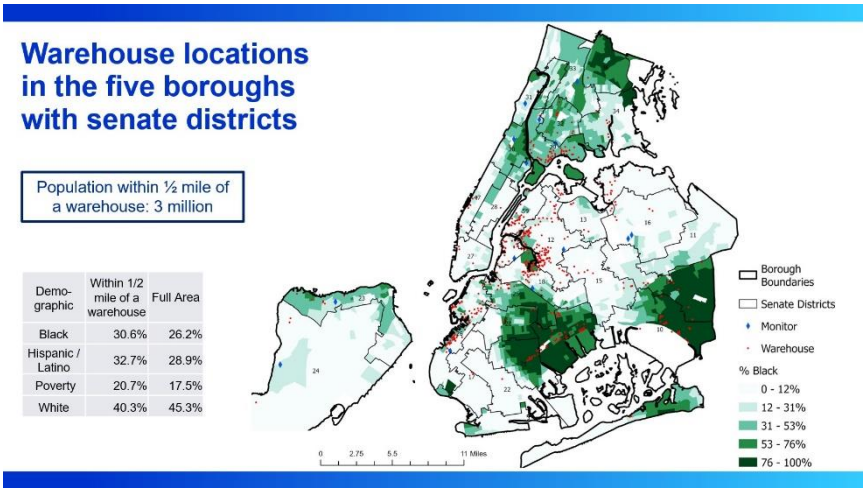

Figure 3

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

The South Bronx
In the South Bronx (Figure 4), EDF analysis found:

- **233,000 people** live within half a mile of a warehouse.
- Black, Hispanic/Latino and low-income residents live within a half mile of these warehouses at rates similar to the area's demographics. The similarity is due to the small size of the area as well the high percentage of Black, Hispanic/Latino and low-income residents living there.
- The asthma-related emergency department visit rates in some South Bronx neighborhoods among children ages five to 17 are three times higher than rates across the five boroughs.[24]

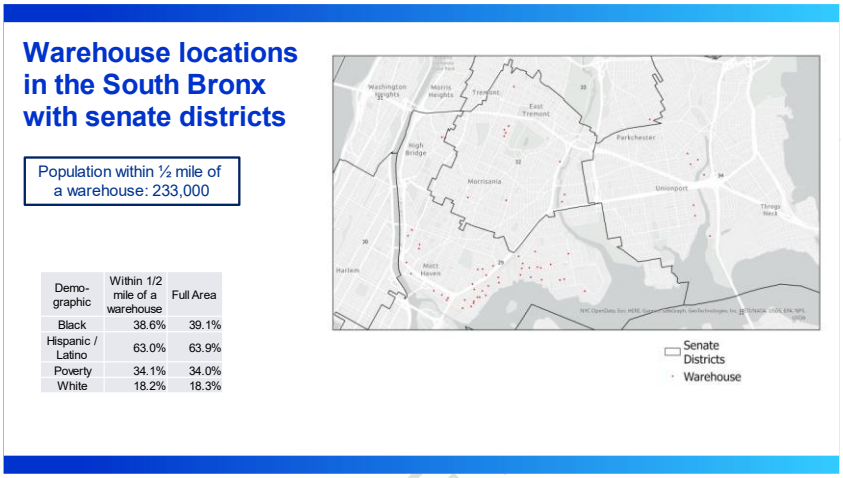

Figure 4

Long Island
In Long Island (Figure 5), EDF analysis found:

- **2.5 million people** live within half a mile of a warehouse.
- **Black residents** are 30% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.
- **Hispanic/Latino residents** are 26% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.
- **Low-income residents** are 29% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.

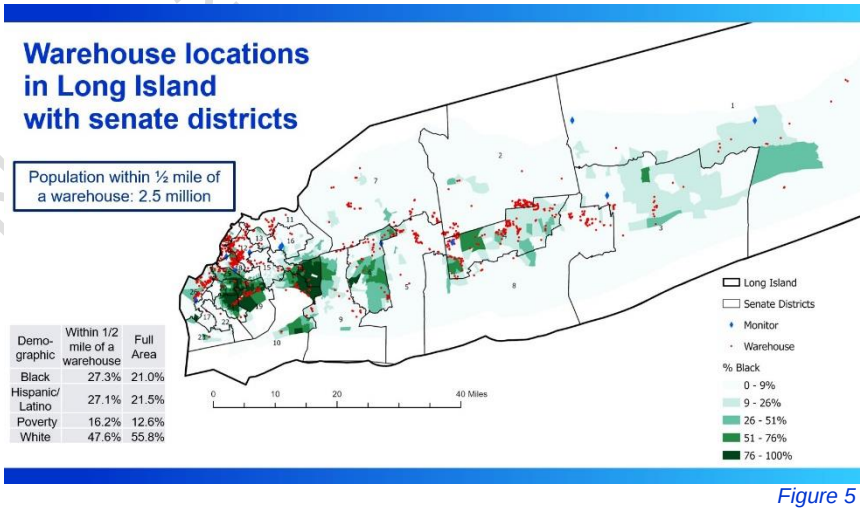

Figure 5

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

The Hudson Valley
In the Hudson Valley (Figure 6), EDF analysis found:

- **457,000 people** live within half a mile of a warehouse.
- **Black residents** are 101% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.
- **Hispanic/Latino residents** are 66% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.
- **Low-income residents** are 54% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.

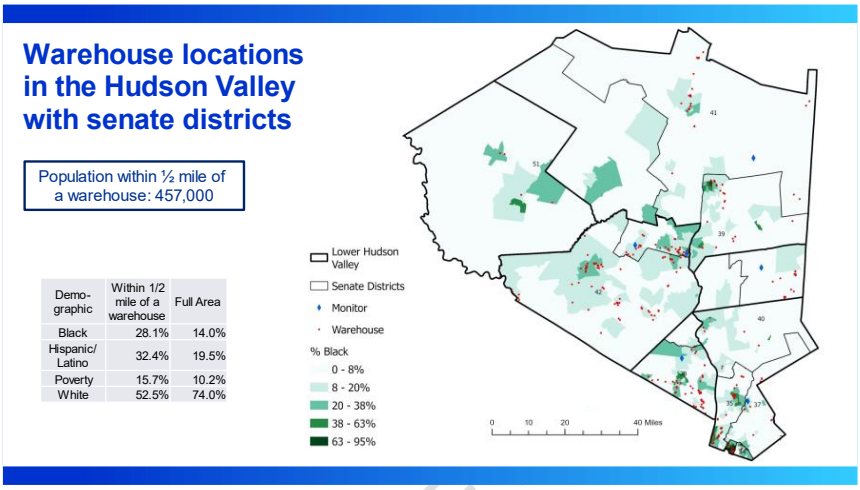

Figure 6

Western and Central New York
In Western and Central New York (Figure 7), EDF analysis found:

- **327,000 people live** within half a mile of a warehouse.
- **Black residents** are 124% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.
- **Hispanic/Latino residents** are 115% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.
- **Low-income residents** are 85% more likely to live within half a mile of a warehouse than would be expected based on the region's demographics.

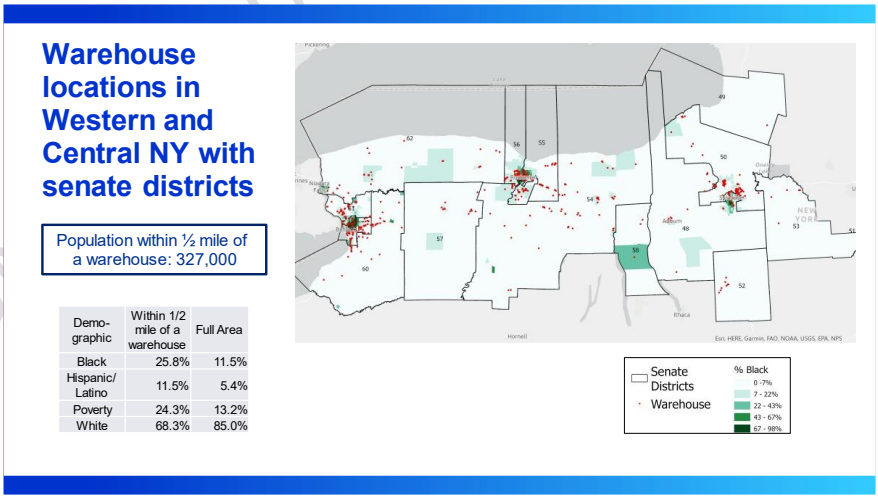

Figure 7

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

WAREHOUSES AND NEARBY COMMUNITIES BY SENATE AND ASSEMBLY DISTRICT

Warehouses are disproportionately located within a half mile of Black and Hispanic/Latino residents across the state. This trend is also apparent at the senate and assembly district level (Figure 8). Of the districts with the most warehouses across the state (Figure 8), warehouses tend to be disproportionately located within a half mile of Black and Hispanic/Latino residents compared to district demographics. See Table 1 and Table 2 for all senate and assembly district results.

The number of estimated daily truck trips is an underestimate because it only includes trips for warehouses greater than or equal to 100,000 square feet.[25] The equation used to estimate truck trips is from the California South Coast Air Quality Management District's equation for warehouses equal to or greater than 100,000 square feet, so truck trips between 50,000 and less than 100,000 square feet cannot currently be calculated.

In Senate District 40 (Figure 9), Hispanic/Latino residents are 95% more likely to live within half a mile of a warehouse than would be expected based on District 40 demographics.

STATEWIDE DATA DISPARATIES

In New York, like the rest of the country, warehouse locations are shrouded in secrecy. While the Energy Information Agency maintains a database of information about polluting facilities like refineries, nothing similar exists for warehouse locations, making it difficult for communities and policymakers alike to learn the identities of owners and operators of these buildings. As a result, organizations must turn to private databases, which are expensive and limited in search capacity and data availability, and communities have no hope of getting access to key data.

Senate and assembly districts notable for warehouse impacts in New York

Senator, party-district number, county or counties represented	Number of leased warehouses ≥ 50,000 sq ft	Cumulative warehouse sq ft	Estimated daily truck trips for leased warehouses ≥ 100k sq ft *	Hispanic/ Latino % in district	Hispanic/ Latino % in warehouse neighbors **	Hispanic/ Latino % in district compared to state %	Black % in district	Black % in warehouse neighbors **	Black % in district compared to state %
Monica Martinez, D-4, Suffolk	168	18,703,000	9,600	39%	41%	206%	21%	26%	124%
Michael Gianaris, D-12, Queens	122	13,754,000	6,700	33%	35%	176%	3%	4%	20%
Neil Breslin, D-46, Albany, Montgomery, Schenectady	104	16,372,000	11,700	7%	12%	38%	13%	29%	78%
Timothy M. Kennedy, D-63, Erie	87	11,670,000	6,900	8%	9%	44%	34%	41%	200%
Jeremy Cooney, D-56, Monroe	85	11,665,000	7,000	10%	18%	52%	24%	44%	144%

Assemblymember, party-district number, county or counties represented	Number of leased warehouses ≥ 50,000 sq ft	Cumulative warehouse sq ft	Estimated daily truck trips for leased warehouses ≥ 100k sq ft *	Hispanic/ Latino % in district	Hispanic/ Latino % in warehouse neighbors **	Hispanic/ Latino % in district compared to state %	Black % in district	Black % in warehouse neighbors **	Black % in district compared to state %
Juan Ardila, D-37, Queens	116	13,101,000	6,300	36%	35%	189%	4%	4%	21%
Michael J. Fitzpatrick, R-8, Suffolk	68	6,066,000	2,000	7%	8%	39%	2%	4%	13%
Kimberly Jean-Pierre, D-11, Nassau, Suffolk	63	6,057,000	2,500	26%	30%	136%	26%	34%	153%
Marcela Mitaynes, D-51, Kings (Brooklyn)	60	11,637,000	8,900	45%	48%	237%	9%	12%	55%
Demond Meeks, D-137, Monroe	57	7,412,000	4,200	19%	25%	102%	47%	53%	279%

Figure 8

Warehouse neighbors in Senate District 40

- 22 warehouses
- 3,829,276 ft^2
- 20,000 people live within 0.5 miles of warehouses
- 3,000 daily truck trips
- 1 EPA monitor
- Hispanic/Latino populations live near warehouses at rates more than 95% higher than would be expected based on District 40 statistics.

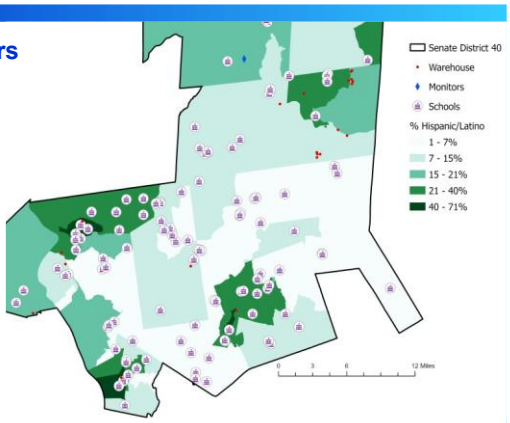

Figure 9

In addition to the lack of transparency about warehouse locations, warehouses are unregulated and can be sited with no environmental review or public process. There is currently no mechanism to ensure compliance with the state's cumulative impacts law or the Climate Leadership and Community Protection Act – a bill that requires an 85% reduction in greenhouse gas emissions by 2050, with an interim target of 40% by 2030.[26]

Furthermore, warehouses are not required to monitor emissions from activities on site: There are only nine NO_2 and 31 $PM_{2.5}$ monitors across the state.[27]

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

Across New York, monitoring of $PM_{2.5}$ is limited to areas with large populations, meaning that near-road hotspots in less populous areas will likely be unmonitored. The $PM_{2.5}$ monitoring disparities can be clearly observed in EDF's analysis of $PM_{2.5}$ attributable mortality in Long Island and the Lower Hudson Valley (Figure 10).

High levels of such mortalities exist in rural areas that are far away from EPA's Federal Reference Method monitors (Figure 10). High levels of $PM_{2.5}$-attributable mortality are also seen around warehouse clusters, especially just outside of New York City. This analysis shows that policies and monitors are not keeping up with the dangers from $PM_{2.5}$ pollution. Without policy intervention to significantly reduce pollution from truck trips to and from warehouses, Black and Hispanic/Latino communities are expected to continue to bear the brunt of this pollution for the foreseeable future.

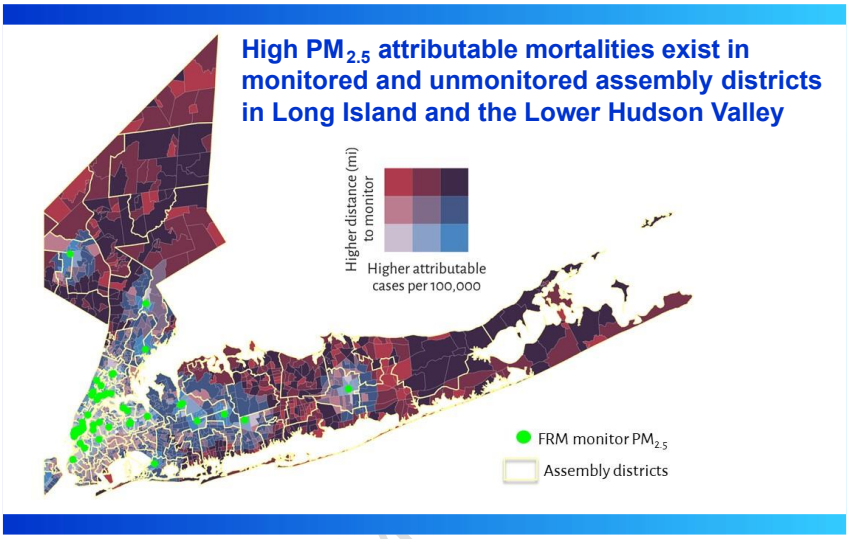

Figure 10

POLICY SOLUTIONS

As e-commerce continues to expand and more consumers purchase goods online, the number of delivery trucks on the road will continue to increase, which leads to a rise in greenhouse gas and health-harming emissions. Without legislation, emissions will continue to disproportionately harm Black, Hispanic/Latino and low-income communities and could thwart the achievement of the Climate Leadership and Community Protection Act. Now, advocates in the ElectrifyNY coalition are pushing for such legislation at the state level, the **Clean Deliveries Act** (S.2127/A.1718).[28]

The **Clean Deliveries Act** addresses the impacts of warehouses by establishing an **indirect source rule** for warehouses engaged in storage, distribution, redistribution, processing and sorting that exceed 50,000 square feet.[29] Key provisions of the bill include:

- An air emissions reduction plan requiring warehouse operators to implement one or more of the following: Acquiring zero-emission vehicles and charging infrastructure, installing solar panels and/or batteries on-site, considering alternative transportation modes for incoming or outgoing trips where appropriate and with on-site worker input or paying fees.
- Enhanced protections for warehouses operating in disadvantaged communities or that impact schools and similar facilities.
- A permit requirement for new warehouse developments or those proposing significant modifications.
- Ongoing reporting requirements related to on-site emissions and emissions mitigation measures.
- A zero-emission zones study on the feasibility, benefits and costs of implementing low- and zero-emission designated areas for air pollution and congestion hotspots.

New York has been a clean energy leader, passing the landmark Climate Leadership and Community Protection Act in 2019, adopting the Advanced Clean Trucks Rule in 2021, and enacting the Advanced Clean Cars II Rule and Low NOx Rule in 2022 to reduce emissions economy-wide and advance a just transition towards a zero-emission transportation sector. Passing the Clean Deliveries Act is a critical next step towards achieving New York's climate mandates and ensuring that New Yorkers that are burdened with emissions from fossil fuels are prioritized for zero-emission investments.

For more information about the **Clean Deliveries Act** contact the following members of ElectrifyNY:

Alok Disa, Earthjustice
alok@earthjustice.org

Kevin Garcia, NYC-EJA
kevin@nyc-eja.org

Jaqi Cohen, Tri-State Transportation Campaign, jaqi@tstc.org

TABLE 1: SENATE DISTRICTS

Senator, party-district number, county or counties represented	Number of leased warehouses ≥ 50,000 sq ft	Cumulative warehouse sq ft	Estimated daily truck trips for leased warehouses ≥ 100k sq ft *	Hispanic/ Latino % in district	Hispanic/ Latino % in warehouse neighbors **	Hispanic/ Latino % in district compared to state %	Black % in district	Black % in warehouse neighbors **	Black % in district compared to state %
Anthony Palumbo, R-1, Suffolk	15	1,827,000	1,000	15%	27%	77%	5%	11%	32%
Mario Mattera, R-2, Suffolk	80	7,458,000	2,700	10%	18%	51%	4%	6%	21%
Dean Murray, R-3, Suffolk	24	5,126,000	3,800	18%	21%	96%	8%	10%	49%
Monica Martinez, D-4, Suffolk	168	18,703,000	9,600	39%	41%	206%	21%	26%	124%
Steven Rhoads, R-5, Nassau	44	5,584,000	3,200	11%	12%	59%	3%	4%	18%
Kevin Thomas, D-6, Nassau	40	3,572,000	1,300	31%	36%	162%	32%	29%	189%
Jack Martins, R-7, Nassau	55	4,943,000	1,900	10%	14%	55%	3%	3%	18%
Alexis Weik, R-8, Nassau, Suffolk	46	4,296,000	1,800	12%	15%	61%	4%	6%	25%
Patricia Canzoneri-Fitzpatrick, R-9, Nassau	22	1,878,000	700	18%	22%	95%	18%	9%	103%
James Sanders Jr., D-10, Queens	25	2,435,000	900	18%	15%	97%	53%	71%	314%
Toby Ann Stavisky, D-11, Queens	26	2,606,000	1,000	19%	29%	101%	11%	9%	67%
Michael Gianaris, D-12, Queens	122	13,754,000	6,700	33%	35%	176%	3%	4%	20%
Jessica Ramos, D-13, Queens	5	582,000	400	63%	57%	331%	8%	8%	46%
Leroy Comrie, D-14, Queens	13	1,425,000	700	17%	20%	87%	51%	61%	300%
Joseph Addabbo Jr., D-15, Queens	10	1,236,000	700	32%	28%	168%	8%	9%	50%
John Liu, D-16, Queens	7	480,000	100	16%	16%	82%	5%	3%	32%
Iwen Chu, D-17, Kings (Brooklyn)	2	129,000	0	19%	26%	100%	2%	3%	14%
Julia Salazar, D-18, Kings (Brooklyn)	57	5,417,000	2,100	45%	43%	238%	18%	17%	107%
Roxanne Persaud, D-19, Kings (Brooklyn)	40	3,884,000	1,200	18%	20%	95%	75%	79%	441%
Zellnor Myrie, D-20, Kings (Brooklyn)	4	262,000	0	12%	12%	61%	53%	56%	314%
Kevin Parker, D-21, Kings (Brooklyn)	11	809,000	100	12%	7%	64%	57%	73%	335%
Simcha Felder, D-22, Kings (Brooklyn)	1	70,000	0	9%	8%	50%	3%	4%	17%
Jessica Scarcella-Spanton, D-23, Kings (Brooklyn), Richmond (Staten Island)	10	800,000	300	22%	36%	115%	20%	36%	120%
Andrew Lanza, R-24, Richmond (Staten Island)	5	1,824,000	1,600	13%	13%	68%	3%	1%	20%
Jabari Brisport, D-25, King (Brooklyn)	30	3,866,000	2,100	19%	21%	98%	57%	54%	337%
Andrew Gounardes, D-26, Kings (Brooklyn)	77	13,026,000	9,200	23%	27%	121%	10%	13%	60%
Brian P. Kavanagh, D-27, New York (Manhattan)	3	285,000	200	16%	13%	84%	8%	7%	47%
Liz Krueger, D-28, New York (Manhattan)	1	119,000	100	9%	8%	48%	3%	4%	20%
José M. Serrano, D-29, New York (Manhattan), Bronx	46	5,032,000	2,500	56%	66%	295%	35%	38%	203%
Cordell Cleare, D-30, New York (Manhattan)	2	157,000	0	32%	36%	169%	46%	50%	271%
Robert Jackson, D-31, New York (Manhattan), Bronx	0	0	0	68%	70%	359%	22%	35%	130%
Luis R. Sepúlveda, D-32, Bronx	10	853,000	300	66%	66%	345%	42%	42%	248%

Gustavo Rivera, D-33, Bronx	1	353,000	300	60%	66%	314%	23%	25%	136%
Nathalia Fernandez, D-34, Bronx, Westchester	11	1,997,000	1,300	49%	51%	257%	26%	32%	155%
Andrea Stewart-Cousins, D-35, Westchester	36	3,326,000	1,100	31%	42%	162%	18%	29%	109%
Jamaal Bailey, D-36, Bronx, Westchester	22	1,789,000	400	26%	28%	137%	65%	64%	380%
Shelley Mayer, D-37, Westchester	11	939,000	300	21%	45%	113%	8%	13%	46%
Bill Weber, R-38, Rockland	55	7,145,000	4,200	18%	25%	93%	14%	16%	81%
Robert Rolison, R-39, Dutchess, Orange, Putnam	59	12,093,000	9,100	17%	32%	90%	16%	28%	93%
Peter Harckham, D-40, Putnam, Rockland, Westchester	22	3,829,000	2,600	20%	39%	103%	7%	16%	43%
Michelle Hinchey, D-41, Columbia, Dutchess, Greene, Ulster	46	4,392,000	1,700	8%	14%	43%	7%	18%	40%
James Skoufis, D-42, Orange	78	9,059,000	4,800	18%	27%	96%	11%	17%	64%
Jake Ashby, R-43, Albany, Rensselaer, Washington	73	8,379,000	4,100	5%	7%	24%	8%	16%	48%
Jim Tedisco, R-44, Saratoga, Schenectady	36	3,729,000	1,500	5%	6%	25%	7%	9%	42%
Dan Stec, R-45, Clinton, Essex, Franklin, Saint Lawrence, Warren, Washington	34	5,165,000	3,200	3%	2%	15%	4%	4%	25%
Neil Breslin, D-46, Albany, Montgomery, Schenectady	104	16,372,000	11,700	7%	12%	38%	13%	29%	78%
Brad Hoylman-Sigal, D-47, New York (Manhattan)	6	1,610,000	1,300	14%	18%	75%	7%	8%	42%
Rachel May, D-48, Cayuga, Onondaga	45	4,935,000	2,500	6%	10%	30%	17%	33%	101%
Mark Walczyk, R-49, Fulton, Hamilton, Herkimer, Jefferson, Lewis, Oswego, St. Lawrence	43	6,890,000	4,600	4%	6%	22%	5%	6%	27%
John Mannion, D-50, Onondaga, Oswego	84	10,179,000	5,600	3%	4%	16%	4%	7%	26%
Peter Oberacker, R-51, Broome, Chenango, Delaware, Herkimer, Otsego, Schoharie, Sullivan, Ulster	36	5,417,000	3,400	8%	7%	40%	5%	7%	32%
Lea Webb, D-52, Broome, Cortland, Tompkins	40	5,904,000	3,800	4%	6%	23%	7%	13%	40%
Joseph Griffo, R-53, Chenango, Madison, Oneida	41	4,853,000	2,400	5%	12%	25%	6%	17%	36%
Pam Helming, R-54, Livingston, Monroe, Ontario, Wayne	61	6,619,000	3,300	4%	6%	21%	4%	6%	25%
Samra Brouk, D-55, Monroe	43	5,920,000	3,600	10%	18%	51%	14%	29%	83%
Jeremy Cooney, D-56, Monroe	85	11,665,000	7,000	10%	18%	52%	24%	44%	144%
George Borrello, R-57, Allegany, Cattaraugus, Chautauqua, Genesee, Wyoming	45	6,546,000	4,200	4%	10%	24%	3%	6%	20%
Tom O'Mara, R-58, Allegany, Chemung, Schuyler, Seneca, Steuben, Tioga, Yates	37	10,177,000	8,400	2%	3%	12%	4%	9%	24%

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

Kristen Gonzalez, D-59, Kings (Brooklyn), New York (Manhattan), Queens	62	5,263,000	1,800	18%	23%	94%	8%	10%	49%
Patrick M. Gallivan, R-60, Erie	33	4,769,000	3,000	2%	3%	11%	2%	3%	12%
Sean Ryan, D-61, Erie	45	5,724,000	3,500	7%	12%	34%	10%	17%	61%
Rob Ortt, R-62, Monroe, Niagara, Orleans	39	5,064,000	3,000	4%	4%	19%	8%	14%	45%
Timothy M. Kennedy, D-63, Erie	87	11,670,000	6,900	8%	9%	44%	34%	41%	200%

* This calculation, which was rounded to two significant figures, only includes truck trips for leased warehouses over 100,000 square feet because the formulae created by California's South Coast Air Quality Management District only include warehouses equal to or greater than 100,000 square feet. As a result, districts with warehouses less than 100,000 square feet will show 0 daily truck trips despite occasionally having more cumulative square footage than districts with a several warehouses equal to or greater than 100,000 square feet.
** Our methodology defines a warehouse neighbor as one who lives within 0.5 miles of at least one warehouse. The buffer picks up warehouses that may be in multiple districts.

TABLE 2: ASSEMBLY DISTRICTS

Assemblymember, party-district number, county or counties represented	Number of leased warehouses ≥ 50,000 sq ft	Cumulative warehouse sq ft	Estimated daily truck trips for leased warehouses ≥ 100k sq ft *	Hispanic/ Latino % in district	Hispanic/ Latino % in warehouse neighbors **	Hispanic/ Latino % in district compared to state %	Black % in district	Black % in warehouse neighbors **	Black % in district compared to state %
Fred Thiele, D-1, Suffolk	6	429,000	100	17%	7%	92%	4%	2%	23%
Jodi Giglio, R-2, Suffolk	9	1,370,000	900	13%	28%	70%	7%	14%	42%
Joe DeStefano, R-3, Suffolk	13	4,384,000	3,700	21%	25%	112%	10%	19%	58%
Edward Flood, R-4, Suffolk	1	90,000	0	14%	26%	75%	9%	6%	52%
Douglas M. Smith, R-5, Suffolk	36	3,295,000	1,300	14%	14%	76%	5%	5%	28%
Philip Ramos, D-6, Suffolk	34	4,099,000	2,300	57%	54%	298%	19%	20%	111%
Jarett Gandolfo, R-7, Suffolk	16	1,379,000	500	15%	18%	80%	6%	3%	35%
Michael J. Fitzpatrick, R-8, Suffolk	68	6,066,000	2,000	7%	8%	39%	2%	4%	13%
Michael Durso, R-9, Nassau, Suffolk	3	389,000	300	11%	17%	59%	3%	6%	18%
Steve Stern, D-10, Nassau, Suffolk	42	4,021,000	1,600	15%	24%	79%	7%	8%	40%
Kimberly Jean-Pierre, D-11, Nassau, Suffolk	63	6,057,000	2,500	26%	30%	136%	26%	34%	153%
Keith Brown, R-12, Suffolk	54	6,817,000	3,900	16%	38%	84%	7%	19%	41%
Charles D. Lavine, D-13, Nassau	37	3,373,000	1,300	18%	28%	97%	11%	19%	64%
David McDonough, R-14, Nassau	5	340,000	100	9%	10%	47%	2%	4%	14%
Jake Blumencranz, R-15, Nassau	34	5,005,000	3,100	9%	10%	47%	2%	2%	14%
Gina Sillitti, D-16, Nassau	14	1,168,000	400	9%	15%	50%	3%	3%	15%
John Mikulin, R-17, Nassau	2	122,000	0	12%	12%	65%	3%	3%	20%
Taylor Darling, D-18, Nassau	14	1,068,000	200	44%	50%	232%	50%	45%	296%
Ed Ra, R-19, Nassau	29	2,602,000	1,100	15%	16%	78%	5%	5%	30%
Eric "Ari" Brown, R-20, Nassau	10	1,093,000	500	15%	29%	79%	6%	8%	35%
Brian F. Curran, R-21, Nassau	4	218,000	0	22%	26%	115%	20%	15%	120%
Michaelle C. Solages, D-22, Nassau	0	0	0	20%	20%	106%	33%	19%	194%
Stacey Pheffer Amato, D-23, Queens	2	133,000	0	26%	30%	135%	23%	28%	135%
David Weprin, D-24, Queens	5	554,000	300	24%	32%	124%	16%	13%	93%
Nily Rozic, D-25, Queens	1	65,000	0	15%	14%	77%	7%	2%	40%

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

Edward Braunstein, D-26, Queens	2	109,000	0	13%	16%	66%	4%	1%	21%
Sam Berger, D-27, Queens	19	1,924,000	700	23%	33%	122%	8%	3%	45%
Andrew Hevesi, D-28, Queens	11	1,307,000	700	20%	27%	105%	5%	3%	29%
Alicia Hyndman, D-29, Queens	10	1,166,000	600	14%	16%	72%	66%	63%	390%
Steven Raga, D-30, Queens	6	342,000	0	29%	30%	151%	3%	3%	16%
Khaleel Anderson, D-31, Queens	18	1,971,000	900	21%	12%	109%	53%	77%	313%
Vivian E. Cook, D-32, Queens	8	570,000	100	19%	23%	99%	63%	58%	368%
Clyde Vanel, D-33, Queens	1	72,000	0	13%	16%	70%	59%	63%	344%
Jessica González-Rojas, D-34, Queens	13	1,427,000	700	50%	41%	264%	5%	5%	28%
Jeffrion L. Aubry, D-35, Queens	3	289,000	200	56%	46%	297%	15%	23%	88%
Zohran Mamdani, D-36, Queens	24	2,208,000	1,000	26%	29%	136%	10%	14%	60%
Juan Ardila, D-37, Queens	116	13,101,000	6,300	36%	35%	189%	4%	4%	21%
Jenifer Rajkumar, D-38, Queens	2	260,000	200	52%	50%	276%	6%	4%	36%
Catalina Cruz, D-39, Queens	2	293,000	200	56%	62%	296%	3%	3%	17%
Ron Kim, D-40, Queens	4	306,000	100	16%	16%	85%	3%	5%	19%
Helene Weinstein, D-41, Kings (Brooklyn)	6	424,000	0	9%	7%	45%	26%	69%	154%
Rodneyse Bichotte Hermelyn, D-42, Kings (Brooklyn)	0	0	0	15%	3%	80%	61%	6%	359%
Brian A. Cunningham, D-43, Kings (Brooklyn)	0	0	0	10%	11%	54%	64%	58%	379%
Robert Carroll, D-44, Kings (Brooklyn)	3	201,000	0	15%	12%	77%	11%	21%	66%
Michael Novakhov, R-45, Kings (Brooklyn)	0	0	0	11%	8%	60%	4%	3%	24%
Alec Brook-Krasny, R-46, Kings (Brooklyn)	1	70,000	0	16%	27%	83%	11%	32%	62%
William Colton, D-47, Kings (Brooklyn)	0	0	0	16%	16%	86%	2%	2%	15%
Simcha Eichenstein, D-48, Kings (Brooklyn)	1	70,000	0	8%	7%	41%	2%	3%	14%
Lester Chang, R-49, Kings (Brooklyn)	2	129,000	0	17%	21%	90%	2%	2%	12%
Emily Gallagher, D-50, Kings (Brooklyn)	35	3,010,000	1,000	16%	16%	83%	5%	5%	31%
Marcela Mitaynes, D-51, Kings (Brooklyn)	60	11,637,000	8,900	45%	48%	237%	9%	12%	55%
Jo Anne Simon, D-52, Kings (Brooklyn)	27	3,261,000	1,600	12%	13%	65%	12%	13%	73%
Maritza Davila, D-53, Kings (Brooklyn)	42	3,912,000	1,400	52%	52%	274%	17%	17%	97%
Erik Martin Dilan, D-54, Kings (Brooklyn)	3	194,000	0	52%	54%	275%	41%	41%	239%
Latrice Walker, D-55, Kings (Brooklyn)	10	830,000	200	21%	22%	109%	79%	79%	464%
Stefani Zinerman, D-56, Kings (Brooklyn)	3	208,000	0	20%	26%	104%	66%	63%	386%
Phara Souffrant Forrest, D-57, Kings (Brooklyn)	17	1,716,000	800	13%	14%	69%	43%	42%	253%
Monique Chandler-Waterman, D-58, Kings (Brooklyn)	10	1,068,000	400	7%	7%	38%	90%	90%	529%
Jaime Williams, D-59, Kings (Brooklyn)	3	175,000	0	9%	9%	46%	59%	56%	346%
Nikki Lucas, D-60, Kings (Brooklyn)	23	2,311,000	800	21%	22%	112%	77%	78%	452%
Charles Fall, D-61, New York (Manhattan), Richmond (Staten Island)	4	236,000	0	27%	43%	143%	24%	32%	141%

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

Michael Reilly, R-62, Richmond (Staten Island)	3	519,000	400	11%	12%	55%	1%	1%	6%
Sam Pirozzolo, R-63, Richmond (Staten Island)	7	1,799,000	1,500	19%	32%	99%	12%	48%	73%
Michael Tannousis, R-64, Kings (Brooklyn), Richmond (Staten Island)	0	0	0	15%	28%	79%	5%	4%	30%
Grace Lee, D-65, New York (Manhattan)	1	60,000	0	19%	15%	101%	10%	9%	59%
Deborah J. Glick, D-66, New York (Manhattan)	2	225,000	100	8%	8%	44%	5%	4%	29%
Linda Rosenthal, D-67, New York (Manhattan)	5	1,516,000	1,300	13%	19%	67%	6%	9%	35%
Eddie Gibbs, D-68, New York (Manhattan)	0	0	0	42%	36%	219%	34%	59%	198%
Daniel J. O'Donnell, D-69, New York (Manhattan)	0	0	0	21%	27%	109%	13%	21%	75%
Inez Dickens, D-70, New York (Manhattan)	2	157,000	0	25%	34%	134%	56%	54%	332%
Al Taylor, D-71, New York (Manhattan)	0	0	0	49%	48%	260%	36%	48%	209%
Manny De Los Santos, D-72, New York (Manhattan)	0	0	0	75%	75%	393%	18%	18%	105%
Alex Bores, D-73, New York (Manhattan)	0	0	0	7%	7%	38%	3%	2%	15%
Harvey Epstein, D-74, New York (Manhattan)	0	0	0	16%	53%	86%	9%	23%	53%
Tony Simone, D-75, New York (Manhattan)	1	95,000	0	15%	18%	77%	7%	8%	40%
Rebecca Seawright, D-76, New York (Manhattan)	1	119,000	100	10%	10%	55%	4%	7%	24%
Latoya Joyner, D-77, Bronx	0	0	0	64%	66%	339%	42%	41%	245%
George Alvarez, D-78, Bronx	0	0	0	71%	68%	376%	24%	40%	141%
Chantel Jackson, D-79, Bronx	6	450,000	100	59%	59%	312%	48%	48%	285%
John Zaccaro Jr., D-80, Bronx	2	449,000	300	49%	50%	257%	27%	35%	159%
Jeffrey Dinowitz, D-81, Bronx	0	0	0	40%	25%	213%	25%	71%	144%
Michael Benedetto, D-82, Bronx	3	1,232,000	1,000	42%	51%	221%	31%	25%	182%
Carl Heastie, D-83, Bronx	0	0	0	26%	33%	134%	74%	65%	434%
Amanda Septimo, D-84, Bronx	46	5,032,000	2,500	70%	70%	367%	35%	34%	203%
Kenny Burgos, D-85, Bronx	3	340,000	200	64%	68%	338%	38%	35%	225%
Yudelka Tapia, D-86, Bronx	1	64,000	0	74%	70%	388%	35%	41%	208%
Karines Reyes, D-87, Bronx	5	496,000	200	56%	50%	294%	34%	37%	200%
Amy Paulin, D-88, Westchester	4	306,000	100	15%	38%	77%	11%	27%	64%
J. Gary Pretlow, D-89, Westchester	25	1,993,000	500	31%	28%	163%	51%	58%	298%
Nader Sayegh, D-90, Westchester	10	1,031,000	400	34%	45%	181%	19%	27%	111%
Steven Otis, D-91, Westchester	5	498,000	200	33%	56%	176%	9%	13%	53%
MaryJane Shimsky, D-92, Westchester	22	1,995,000	700	19%	22%	98%	12%	21%	72%
Chris Burdick, D-93, Westchester	6	1,008,000	700	18%	36%	97%	7%	14%	41%
Matt Slater, R-94, Westchester, Putnam	16	2,264,000	1,300	13%	21%	70%	4%	3%	23%
Dana Levenberg, D-95, Westchester, Putnam	4	861,000	600	27%	46%	144%	12%	22%	71%
Kenneth Zebrowski Jr., D-96, Rockland	17	2,362,000	1,500	24%	38%	126%	15%	18%	89%
John W. McGowan, R-97, Rockland	33	3,498,000	1,700	14%	18%	72%	15%	16%	89%

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

Karl A. Brabenec, R-98, Orange, Rockland	18	2,971,000	2,000	11%	15%	61%	6%	7%	38%
Chris Eachus, D-99, Orange, Rockland	28	3,480,000	2,100	16%	22%	84%	9%	12%	53%
Aileen Gunther, D-100, Orange, Sullivan	28	2,798,000	1,100	24%	37%	125%	18%	25%	104%
Brian Maher, R-101, Delaware, Oneida, Orange, Otsego, Sullivan, Ulster	28	6,650,000	5,100	14%	19%	75%	8%	13%	47%
Christopher Tague, R-102, Albany, Delaware, Greene, Otsego, Schoharie, Ulster	20	3,938,000	3,100	4%	5%	23%	4%	8%	23%
Sarahana Shrestha, D-103, Dutchess, Ulster	22	2,040,000	700	8%	17%	42%	7%	18%	44%
Jonathan Jacobson, D-104, Dutchess, Orange, Ulster	27	3,676,000	2,200	23%	39%	123%	24%	34%	141%
Anil Beephan Jr., R-105, Dutchess	13	2,654,000	2,100	12%	16%	66%	8%	7%	48%
Didi Barrett, D-106, Columbia, Dutchess	20	2,161,000	1,000	9%	14%	46%	9%	19%	52%
Scott Bendett, R-107, Albany, Columbia, Rensselaer, Washington	9	670,000	100	3%	4%	15%	2%	2%	10%
John T. McDonald III, D-108, Albany, Rensselaer, Saratoga	20	2,239,000	1,200	7%	8%	35%	14%	20%	84%
Patricia Fahy, D-109, Albany	40	5,663,000	3,600	8%	11%	45%	26%	52%	154%
Phillip Steck, D-110, Albany, Schenectady	48	5,246,000	2,300	5%	6%	25%	8%	10%	47%
Angelo Santabarbara, D-111, Montgomery, Schenectady	32	6,034,000	4,900	11%	16%	60%	14%	12%	84%
Mary Beth Walsh, R-112, Fulton, Saratoga, Schenectady	40	4,432,000	2,400	4%	3%	19%	3%	3%	18%
Carrie Woerner, D-113, Saratoga, Warren, Washington	17	1,704,000	600	3%	3%	16%	2%	3%	14%
Matt Simpson, R-114, Essex, Fulton, Saratoga, Warren, Washington	13	1,590,000	800	2%	1%	12%	3%	3%	16%
Billy Jones, D-115, Clinton, Essex, Franklin	19	2,432,000	1,400	3%	3%	18%	6%	5%	33%
Scott Gray, R-116, Jefferson, St. Lawrence	11	4,256,000	3,600	4%	8%	20%	6%	11%	33%
Ken Blankenbush, R-117, Jefferson, Lewis, Oneida, St. Lawrence	7	1,170,000	900	5%	3%	25%	4%	3%	26%
Robert Smullen, R-118, Fulton, Oneida, Hamilton, Herkimer, Montgomery	30	3,458,000	1,900	3%	5%	15%	3%	3%	15%
Marianne Buttenschon, D-119, Oneida	30	3,553,000	1,700	9%	14%	47%	13%	19%	74%
William A. Barclay, R-120, Jefferson, Oswego, Wayne	11	1,469,000	800	3%	3%	13%	2%	2%	10%
Joe Angelino, R-121, Broome, Chenango, Delaware, Madison, Otsego, Sullivan	26	3,888,000	2,500	3%	4%	15%	2%	4%	13%
Brian Miller, R-122, Herkimer, Madison, Oneida, Otsego	9	849,000	200	3%	3%	15%	3%	3%	16%
Donna Lupardo, D-123, Broome	29	3,510,000	2,000	5%	7%	27%	10%	16%	61%
Christopher S. Friend, R-124, Broome, Chemung, Tioga	23	5,596,000	4,400	3%	3%	13%	6%	11%	34%
Anna Kelles, D-125, Cortland, Tompkins	10	2,312,000	1,900	5%	4%	25%	5%	5%	30%

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

John Lemondes Jr., R-126, Cayuga, Onondaga	11	1,196,000	600	3%	7%	14%	4%	17%	22%
Albert A. Stirpe Jr., D-127, Madison, Onondaga	28	3,017,000	1,400	3%	4%	14%	5%	8%	29%
Pamela Hunter, D-128, Onondaga	47	4,755,000	2,200	6%	9%	34%	22%	38%	132%
William Magnarelli, D-129, Onondaga	30	4,648,000	3,200	7%	9%	38%	21%	26%	123%
Brian Manktelow, R-130, Monroe, Wayne	35	5,034,000	3,100	4%	5%	21%	4%	6%	22%
Jeff Gallahan, R-131, Broome, Cayuga, Chenango, Cortland, Madison, Ontario, Seneca	17	2,296,000	1,300	4%	5%	23%	3%	4%	19%
Phil Palmesano, R-132, Chemung, Schuyler, Seneca, Steuben, Yates	11	3,883,000	3,400	2%	2%	11%	3%	3%	18%
Marjorie Byrnes, R-133, Livingston, Monroe, Ontario, Steuben, Wyoming	17	1,711,000	800	3%	4%	17%	3%	3%	18%
Josh Jensen, R-134, Monroe	7	1,487,000	1,200	6%	5%	30%	8%	7%	47%
Jennifer Lunsford, D-135, Monroe	16	2,083,000	1,200	3%	4%	18%	3%	4%	16%
Sarah Clark, D-136, Monroe	14	1,767,000	1,000	12%	20%	65%	19%	36%	113%
Demond Meeks, D-137, Monroe	57	7,412,000	4,200	19%	25%	102%	47%	53%	279%
Harry Bronson, D-138, Monroe	35	3,540,000	1,700	6%	7%	32%	16%	20%	96%
Stephen Hawley, R-139, Erie, Genesee, Monroe, Orleans	21	2,570,000	1,600	4%	4%	20%	5%	7%	28%
William Conrad III, D-140, Erie, Niagara	28	3,853,000	2,400	5%	9%	28%	8%	12%	45%
Crystal Peoples-Stokes, D-141, Erie	24	2,425,000	900	7%	7%	37%	63%	71%	371%
Patrick B. Burke, D-142, Erie	24	3,445,000	2,400	6%	12%	31%	5%	12%	29%
Monica P. Wallace, D-143, Erie	41	5,526,000	3,200	3%	3%	16%	12%	11%	72%
Michael Norris, R-144, Erie, Niagara	21	2,786,000	1,500	2%	3%	13%	5%	6%	27%
Angelo Morinello, R-145, Erie, Niagara	21	3,323,000	2,300	3%	4%	16%	11%	18%	64%
Karen McMahon, D-146, Erie	9	756,000	300	4%	6%	21%	8%	14%	46%
David DiPietro, R-147, Erie, Wyoming	4	391,000	200	2%	3%	12%	3%	1%	16%
Joseph Giglio, R-148, Allegany, Cattaraugus, Steuben	10	958,000	300	2%	3%	10%	2%	2%	12%
Jonathan Rivera, D-149, Erie	22	3,563,000	2,500	13%	21%	67%	13%	23%	79%
Andy Goodell, R-150, Erie, Chautauqua	22	4,047,000	3,000	7%	14%	39%	4%	6%	21%

* This calculation, which was rounded to two significant figures, only includes truck trips for leased warehouses over 100,000 square feet because the formulae created by California's South Coast Air Quality Management District only include warehouses equal to or greater than 100,000 square feet. As a result, districts with warehouses less than 100,000 square feet will show 0 daily truck trips despite occasionally having more cumulative square footage than districts with a several warehouses equal to or greater than 100,000 square feet.

** Our methodology defines a warehouse neighbor as one who lives within 0.5 miles of at least one warehouse. The buffer picks up warehouses that may be in multiple districts.

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100

ENDNOTES

[1] Environmental Protection Agency. (n.d.). Sources of Greenhouse Gas Emissions. EPA. Retrieved July 26, 2022 from In note #21 lowercase title of fact sheet https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions

[2] Hernandez, Acacia. New Target Warehouse in Little Village Draws Environmental Concerns Despite Job Creation, August 4, 2021. https://news.wttw.com/2021/08/04/new-target-warehouse-little-village-draws-environmental-concerns-despite-job-creation

[3] Environmental Defense Fund, Making the Invisible Visible: Shining a Light on Warehouse Truck Air Pollution, 2023. https://globalcleanair.org/files/2023/04/EDF-Proximity-Mapping-2023.pdf

[4] Environmental Protection Agency, Near Roadway Air Pollution and Health: Frequently Asked Questions, 2015. https://www.epa.gov/sites/default/files/2015-11/documents/420f14044_0.pdf

[5] Rowangould 2013 TR, EPA 2021. Best Practices for Reducing Near-Road Pollution Exposure at Schools.

[6] Dean, B. B., Calimlim, B. C., Sacco, P., Aguilar, D., Maykut, R. and D. Tinkelman. (2010). Uncontrolled asthma: assessing quality of life and productivity of children and their caregivers using a cross sectional Internet-based survey. Health and quality of life outcomes, 8, 96. https://doi.org/10.1186/1477-7525-8-96

[8] New York State Department of Health, New York State Asthma Surveillance Summary Report, October 2013. https://www.health.ny.gov/statistics/ny_asthma/pdf/2013_asthma_surveillance_summary_report.pdf

[9] New York State Department of Health, Description of Population Demographics and General Health Status, New York State, 2018. https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/docs/sha/general_description.pdf

[10] Bekkar B., Pacheco S., Basu R. and N. DeNicola. Association of Air Pollution and Heat Exposure With Preterm Birth, Low Birth Weight, and Stillbirth in the US: A Systematic Review. JAMA Netw Open. 2020; Jun 1;3(6):e208243. https://doi.org/10.1001/jamanetworkopen.2020.8243

[11] Peters R., Ee N., Peters J., Booth A., Mudway I. and Anstey K. Air Pollution and Dementia: A Systematic Review. J Alzheimers Dis. 2019;70(s1):S145-S163. https://doi.org/10.3233/JAD-180631

[12] de Bont, J., Jaganathan, S., Dahlquist, M., Persson, A., Stafoggia, M. and P. Ljungman. Ambient air pollution and cardiovascular diseases: an umbrella review of systematic reviews and meta-analyses. J Intern Med. 2022; 291: 779– 800. https://doi.org/10.1111/joim.13467

[13] Union of Concerned Scientists, Ready for Work, 2019. https://www.ucsusa.org/resources/ready-work

[14] Union of Concerned Scientists, Ready for Work, 2019. https://www.ucsusa.org/resources/ready-work

[15] California Air Resources Board, EMFAC2021 Volume III Technical Document, 111. https://ww2.arb.ca.gov/sites/default/files/2021-03/emfac2021_volume_3_technical_document.pdf

[16] Environmental Defense Fund, EDF mapping reveals where traffic pollution harms children's lungs. https://globalcleanair.org/traffic-pollution-harms-childrens-lungs/

[17] Dean, B. B., Calimlim, B. C., Sacco, P., Aguilar, D., Maykut, R. and D. Tinkelman. Uncontrolled asthma: assessing quality of life and productivity of children and their caregivers using a cross sectional Internet-based survey. Health and quality of life outcomes. 2010; 8, 96. https://doi.org/10.1186/1477-7525-8-96 (#2)

[18] New York State Department of Health, Asthma Information, Frequently Asked Questions. https://www.health.ny.gov/diseases/asthma/asthma_faqs.htm

[19] New York State Department of Health, New York State Asthma Dashboard, 2020. https://apps.health.ny.gov/public/tabvis/PHIG_Public/asthma/reports/#state

[20] New York State Department of Health, Contributing Causes of Health Challenges. https://www.health.ny.gov/prevention/prevention_agenda/2019-2024/docs/sha/contributing_causes_of_health_challenges.pdf

[21] Earthjustice, Earthjustice Statement: New Report Dubs Six New York Cities as "Asthma Capitals;" Solution for NY Governor Hochul lies in "Green Transit, Green Jobs" Legislation, September, 2023. https://earthjustice.org/press/2023/earthjustice-statement-new-report-dubs-six-new-york-cities-as-asthma-capitals-solution-for-ny-governor-hochul-lies-in-green-transit-green-jobs-legislation

[22] Meyer, Michelle and Tim Dallmann. Exposure to Air Pollution from Diesel Trucks in New York City, April 13, 2022. https://theicct.org/wp-content/uploads/2022/04/fs-true-diesel-trucks-nyc-apr22.pdf

[23] Kheirbek, I., Haney, J., Douglas, S., Ito, K. and T. Matte. The contribution of motor vehicle emissions to ambient fine particulate matter public health impacts in New York City: a health burden assessment. Environ Health. 2016 Aug; 15(1):89. https://doi.org/10.1186/s12940-016-0172-6

[24] New York City Health, Epi Data Brief, September 2021. https://www.nyc.gov/assets/doh/downloads/pdf/epi/databrief126.pdf

[25] South Air Quality Management District, WAIRE Implementation Guidelines, June 2021. https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/waire-implementation-guidelines.pdf?sfvrsn=12

[26] N.Y. Legis. Senate. S-6599. Reg. Sess. 2019-2020 (2019). https://www.nysenate.gov/legislation/bills/2019/S6599

[27] Environmental Protection Agency, Annual Summary Data, 2022. https://aqs.epa.gov/aqsweb/airdata/download_files.html#Annual

[28] N.Y. Legis. Senate. S-2127. Reg. Sess. 2023-2024 (2023). https://www.nysenate.gov/legislation/bills/2023/S2127

[29] ELECTRIFYNY, Clean Deliveries Act. https://drive.google.com/file/d/1aSdzLA7f6SQajxpO8TmPShwwqfxmlgTY/view

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

A vital Earth. For everyone.
EDF.org
T 212 505 2100