

Addressing Freight Pollution in Illinois

Air Pollution, Freight Facility Clusters, and the Role of Indirect Source Rules

HIGHLIGHTS

More than one in four Illinoisans live near major freight facilities and corridors. Growth in e-commerce has driven the construction of larger, increasingly clustered warehouses, and Union of Concerned Scientists research finds that communities near clusters of freight facilities experience more air pollution and greater health risks than the state average. Public health issues resulting from exposure include chronic and lethal illnesses that disproportionately affect people of color. Freight-focused indirect source rules can help reduce these harms by requiring major freight facilities to address the pollution their operations attract while accelerating investments in cleaner trucks, equipment, and infrastructure.

Millions of Illinoisans Live Near Major Sources of Freight Pollution

The rise in e-commerce has reshaped goods consumption and fundamentally altered the freight system that underpins the movement of goods. Although these changes have introduced some systemic efficiencies, they also lead to the clustering of large warehouses and more fossil-fueled cargo handling equipment and delivery and logistics trucks at these clusters and on the roads (Kerr et al. 2024; Wilson 2026).

Our nation's freight system exposes people living and working near major ports, railyards, and warehouses to disproportionately high levels of harmful air pollution. Recent research by the Union of Concerned Scientists (UCS) identified populations living near major freight facilities and corridors nationwide and found that higher concentrations of nearby freight facilities are associated with greater environmental and health impacts in areas near these facilities and corridors (Wilson 2026).

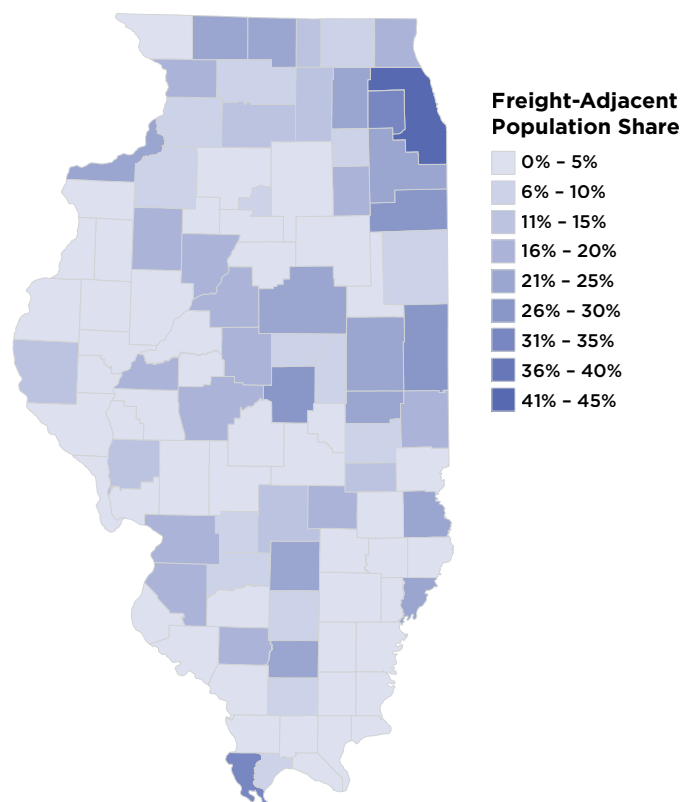
Although Illinois does not have a major coastal port, it is home to major inland ports and is the fourth largest freight mover by tonnage nationally. Indeed, about one-quarter of all US freight trains move through the Chicago area (BTS, n.d.; CMAP, n.d.). More than 3.5 million Illinoisans—and over 40 percent of Cook County residents—live close to large freight facilities and corridors (Figure 1, p. 2). Cook County is among the top 10 counties nationally by total number of large warehouses, with more than 1,000. Adjacent DuPage County ranks fifth nationally in large warehouse concentration by land area (see Wilson 2026 Tables A1 and A2).

Clustered Freight Facilities May Impact Local Pollution Levels

While freight pollution nationwide has decreased in recent decades, residents in areas near freight facilities often continue to experience unhealthy air quality, with negative health outcomes at levels greater than the state average (Wilson 2025). This exposure is not equally distributed; people of color comprise a higher share of populations near freight facilities compared to the state average. In areas with more than 10 nearby freight facilities, people of color make up nearly three-quarters of the population despite comprising about 41 percent of the Illinois population.

In census tracts close to clustered freight facilities, the average concentrations of diesel particulate matter (DPM) and number of days above the national standard

FIGURE 1. Share of Illinoisans Living Near Freight Facilities and Corridors, by County



In three Illinois counties, over 30 percent of people live near major freight facilities and corridors. Statewide, this number is more than 3.5 million people. See [here](#) for county-specific information on freight-adjacent populations and warehouse concentrations.

for ground-level ozone consistently rank higher than state averages. Moreover, these concentrations tend to increase with greater concentrations of nearby freight facilities. Areas close to more than 10 freight facilities experience average DPM concentrations nearly 70 percent higher than the statewide average and about 38 percent more days of high ground-level ozone (Figure 2, p. 3).

The likelihood of developing cancer from exposure to air toxics is also notably higher in areas close to clustered freight facilities. For example, the 155,000 Illinoisans living in census tracts close to more than 10 freight facilities face an air-toxics cancer risk about 23 percent higher than the statewide average.

While proximity is a major driver of freight-related pollution exposure, it is not the only factor. Weather patterns, topography, and the presence of other pollution sources all affect local and regional air quality—and they all can compound pollution exposure. Even so, the relationship between nearby freight facility concentration and pollution exposure is clear.

What Are Indirect Source Rules?

Indirect source rules (ISRs) require facilities to mitigate the pollution their operations attract with the goals of improving air quality in nearby communities, particularly those around clusters of such facilities, and providing a foundation for feasible deployment of clean freight vehicles and equipment. ISRs can apply to a number of sources that attract pollution, from parking lots to construction sites. A freight-focused ISR may apply to warehouses, distribution centers, ports, railyards, and other freight facilities.

ISRs establish both facility-specific targets for reducing emissions and flexible sets of compliance options that covered facilities can use to meet those targets. The options may include, for example, installing infrastructure for charging electric vehicles or increasing visits by or deployments of zero-emission trucks and delivery vans.

Best Practices for ISR Policy Designs

A well-designed, freight-focused ISR would meaningfully reduce air pollution around major freight facilities by offering flexible compliance pathways tailored to local economic and operational conditions. It would encourage cleaner vehicle visits, promote the use of cleaner equipment, and support infrastructure investments. Thus, it would directly reduce harmful emissions as it accelerates the transition to a zero-emission freight system.

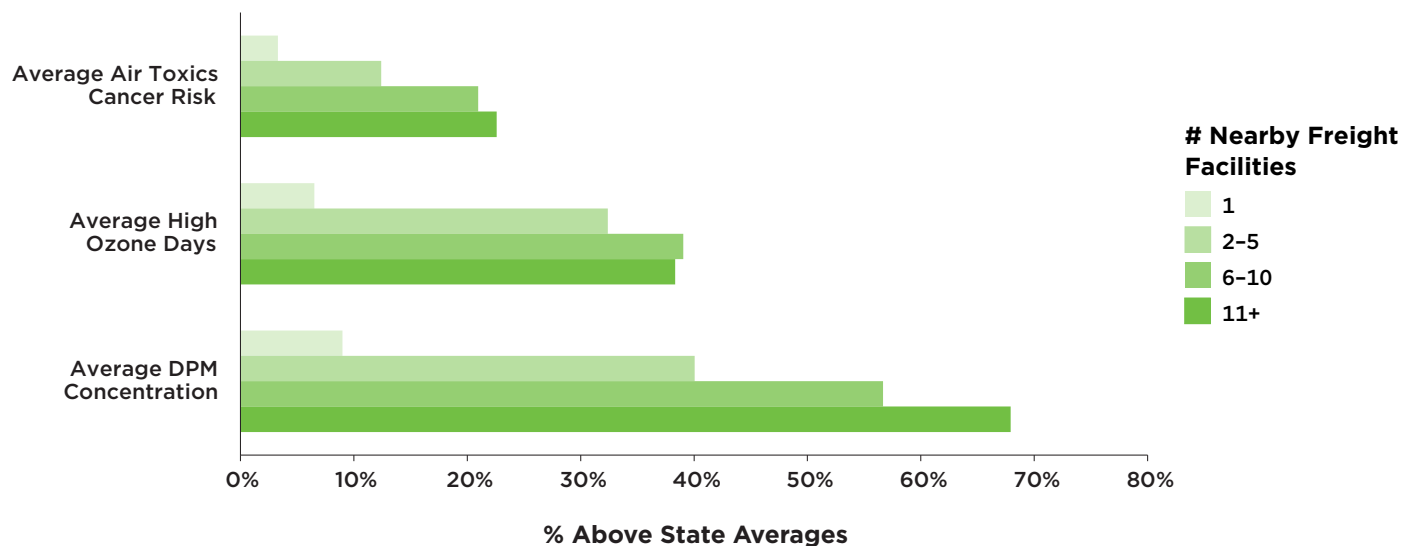
Elements of an effective ISR may include the following:

- Establishment of clear targets and evaluation of policy and program performance over time through robust baseline data and impact measurements
- Measurable and sustainable local pollution reductions with feasible and flexible compliance options
- Permitting and zoning provisions addressing operational and cumulative impacts on nearby communities
- Adaptive implementation through local air quality monitoring and modeling to ensure programs evolve with changing freight activity and technology availability
- Opportunities for meaningful public participation

Addressing Pollution While Advancing Freight Electrification

In an uncertain political environment, ISRs offer a critical pathway for continued state and local policy action to achieve measurable public health benefits. Although they are unlikely to compensate fully for stalled or reversed progress at the federal level, they offer a practical mechanism for reducing emissions in the near term and directing investments to the communities most burdened by freight pollution. When paired with comple-

FIGURE 2. Cancer Risk and Pollution Concentrations by Number of Nearby Freight Facilities in Illinois



Key freight pollution indicators, including average DPM concentrations and average high ozone days, are significantly higher than state averages in areas near freight facilities. The risk of developing cancer from exposure to air toxics increases significantly as the concentration of nearby freight facilities grows.

mentary clean freight policies and investments in zero-emission vehicles, equipment, and infrastructure, ISRs can help protect freight-impacted communities today while reinforcing momentum toward a modern, sustainable freight system.

This fact sheet is based on the report Addressing Freight Pollution at the Source: Air Pollution, Freight Facility Clusters, and the Role of Indirect Source Rules. Read the full report online at www.ucs.org/resources/addressing-freight-pollution-source.

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