NCTCOG FACT SHEET

October 2025

QUICK TAKE

What:

The NCTCOG Goods, Services and People Movement Program conducted an analysis of the potential impacts of freight-related land uses (warehouses, distribution centers, railroads and manufacturing facilities) on communities under the protection of Areas of Persistent Poverty laws and policies throughout the region.

Significance:

Under certain conditions, freight land uses have the potential to cause disproportionate impacts to minority and low-income populations.

By the Numbers:

Analysis conducted by NCTCOG found that 73.1% of regional freight facilities are located within an Area of Persistent Poverty.

Schools in Areas of Persistent Poverty were – on average – 1.38 miles from the nearest freight facility, while schools outside of Areas of Persistent Poverty were an average of 3.04 miles from the nearest freight facility, a difference of 75.1% (or 1.66 miles).

Roughly 44% of all regional freight rail lines run through Areas of Persistent Poverty. Schools in Areas of Persistent Poverty are 41.3% closer to freight rail lines than schools in non-Areas of Persistent Poverty.

Almost 50% of regional rail crossings are in Areas of Persistent Poverty and are nearly twice as likely to be the target of a grade separation project.

Areas of Persistent Poverty and Freight Facilities

Freight Facilities and Land Use Conflicts

North Texas is home to a variety of freight facilities, such as distribution centers, manufacturing plants and warehouses. Although these assets are crucial for economic vitality, they also can present challenges when located adjacent to more sensitive land uses, such as schools and houses. Areas of Persistent Poverty in the context of freight infrastructure refers to the proportional, equitable distribution of the benefits and burdens produced by these facilities among low-income and minority populations.

Conflicts can occur when incompatible land uses, such as industrial and residential, are developed in close proximity to one another. Issues such as light and noise pollution and safety hazards can affect quality of life near freight facilities. NCTCOG seeks to promote development that prevents land use conflicts by using high-quality site design and "Good Neighbor Strategies," to reduce or eliminate negative externalities associated with freight developments. Since most regional freight facilities are located within Areas of Persistent Poverty, these policy and design tools are important.

Proximity to Freight Facilities

Dallas-Fort Worth area freight facilities are approximately 1.5 miles closer to schools in Areas of Persistent Poverty compared to schools in non-Areas of Persistent Poverty. This may indicate that the potential for impacts to surrounding communities is higher in Areas of Persistent Poverty.

Photo: Getty Images

Freight rail is important to the North Texas economy. But land use decisions around rail lines can improve quality of life. NCTCOG encourages "Good Neighbor Strategies" to help.

Proximity to Freight Rail Lines

Freight rail transportation is another critical aspect of the regional goods movement network. However, rail lines can generate large amounts of noise and vibration, as well as present safety hazards and can temporarily impede roadway mobility near rail crossings. Just under half of all freight rail mileage in the region is in Areas of Persistent Poverty, and schools in Areas of Persistent Poverty tend to be almost twice as close to rail lines than their non-Areas of Persistent Poverty counterparts.

Nearly 50% of railroad crossings (at-grade and grade separated) are located in Areas of Persistent Poverty. Crossings in Areas of Persistent Poverty are almost twice as likely to be the targets of grade separation projects.

Land Use and the Environment

Air Quality

NCTCOG air quality models indicate most vehicular emissions in the region are generated by medium and heavy-duty vehicles.

As a result, air quality impacts could occur near freight facilities that service large numbers of trucks. Other potential impacts include:

- There can be higher than average nitrogen oxide and particulate matter emissions near freight facilities.
- Maintenance, fueling and cleaning of heavy equipment can generate runoff that pollutes nearby surface water (if present).
- Freight facilities typically have many impermeable surfaces (parking lots, roads, yards, etc.) that can exacerbate flooding and accelerate soil erosion.

These and other environmental effects can be managed by heightened design standards for freight-oriented developments, as well as other transportation-related programs, such as off-peak deliveries and freight-land use preservation initiatives. Efforts such as these reduce the amount of emissions generated by freight vehicles while lessening their impact on roadway congestion.

Photo: Getty Images

North Texas is home to many freight facilities to serve its growing population. NCTCOG has analyzed freight land uses and developed recommendations to help communities as they consider how to promote connectivity to ensure the efficient delivery of goods.