

North Central Texas Council of Governments

Regional Transportation Council

www.nctcog.org/trafficcounts

Quick Take

What:

Traffic Counts: Information provided by the North Central Texas Council of Governments, Texas Department of Transportation, municipalities and private companies. This data is used for a variety of purposes intended to improve the quality of life of residents of the Dallas-Fort Worth area.

Significance:

Traffic counts provide valuable data used in the transportation planning process and in economic development and assessment studies. In a growing region such as Dallas-Fort Worth, the counts provide information to help residents, employers and governments make decisions that improve mobility.

By the Numbers: **180 million**

The combined number of miles traveled on the average workday by the 6 million vehicles registered in the Dallas-Fort Worth area. NCTCOG maintains a website offering historical traffic counts throughout the region.

Traffic Counts Play Integral Role in Planning

Roadways are the part of the North Texas transportation system affecting virtually everyone who calls the region home or visits for business or pleasure. They connect employees to work, shoppers to stores and transit users to stations. How do we ensure that as the region grows, the roads will continue to take people where they need to go?

Traffic counts are collected regularly to provide planners, traffic engineers and developers with information that helps with decision-making. The goals are to improve the existing transportation infrastructure and assess the economic activity and potential of a road or an intersection to a city or the region.

One element involved in the allocation of funds is the existing or forecast vehicular demand on the roads. If a road becomes congested, one way to improve reliability is to add lanes. If an intersection becomes too busy, its operation can be improved through the retiming of traffic signals. The demand on these roads and intersections can be assessed by counting the number of vehicles that travel on them at a specific time interval, often a 24-hour period.

Average daily traffic at permanent counting stations has increased each year since 2009, when it fell slightly due to the effects of the recession. It is important to understand where traffic is heaviest so transportation resources can be used most effectively. Several companies collect information on travel times and rank the congestion of different regions. This information supplements the data collected by NCTCOG and the Texas Department of Transportation.

Developers and employers use detailed information about traffic counts to help determine where to locate their operations. For example, there is a strong correlation between potential patrons of a restaurant and the number of vehicles that traverse the road where the restaurant is located. Similarly, traffic impacts real estate decisions. When planning housing, it is important to measure the current number of vehicles using the existing roads and estimate how many vehicles will be added after the housing units are built.





For transportation planning agencies such as NCTCOG, collecting traffic counts is crucial for the calibration and validation of the travel demand model, which is used to forecast traffic volumes on the main roads for up to 30 years. The travel demand model forecasts the future vehicular demand on the transportation network by means of sophisticated algorithms that are estimated based on the current demographics and the characteristics of the existing roadways. The most recent traffic counts are then compared with estimates from the travel model to produce reliable forecasts.

Computer simulations produced by the travel demand model allow planners, engineers and decision-makers to identify the roads that need to be improved or built. This helps keep congestion below critical levels and assure reasonable travel times for the majority of the population. NCTCOG has integrated a database of historical traffic counts for 50,000 locations in 16 counties. These traffic counts have been assembled from data collected by NCTCOG, cities and TxDOT. The traffic counts database is available at **www.nctcog.org/trafficcounts** and features a user-friendly website interface that can display data counts by vehicle, time of day and at permanent counting stations. Turning movements can also be reported.

North Texas will spend billions of dollars over the next two-plus decades to improve its multimodal transportation system. But there are more needs than resources. Traffic counts are a crucial piece of the puzzle that planners and policymakers can consider when determining where to allocate the limited transportation resources. This data is useful in making the system work efficiently today and can also assist planners as they project the needs for decades to come.



Counting Cars to Improve Reliability

A variety of information is available to motorists and decision-makers through NCTCOG's historical traffic count website. This map provides an example of traffic in the Arlington Entertainment District.



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