



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

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SECRETARY

To: All NCDOT Traffic Monitoring Data Customers
From: Kerry Morrow, Traffic Survey Supervisor
Date: December 8, 2021
Subject: Characteristics of 2020 Annual Average Daily Traffic Estimate

Purpose

To provide transparency on how the COVID-19 pandemic affected North Carolina 2020 traffic monitoring collection efforts and generation of Annual Average Daily Traffic (AADT) data sets.

Key points

- **Data Collection:** Traffic monitoring data was collected at substantially fewer sites in 2020 than in a typical collection year, after adjustments to the standard data collection effort at the onset of the COVID-19 pandemic.
 - **Data Analysis:** Traffic patterns were significantly impacted, which necessitated a non-standard methodology for analyzing the data. The methodology developed for generating 2020 AADTs is consistent with methods used by other agencies.
 - **End of Year Process:** The methods used generate reasonable travel estimates for all of 2020 at the county and statewide level.
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**Short-term
Collection
Details**

- Data collection was suspended from early March until May.
 - Adjusted collection efforts to collect a sample of stations across the entire state to have a measure of travel changes in all areas.
 - Counts were collected at ~5,000 stations on non-interstate routes.
 - All interstate routes had sample counts collected along each corridor.
 - Classification data was collected as originally scheduled.
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Continuous Data Summary

- All continuous count stations experienced a drop in AADT in 2020, ranging from -1% to -33%.
 - Interstates experienced a higher drop than non-interstates.
 - Urban areas experienced a higher drop than rural areas.
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Analysis Details

- **Short-Term Counts:** A percent change model was used to estimate 2020 AADTs, based on the ratio of 2020 count to 2019 AADT applied to all stations. Both interstate and non-interstate models used the percent change methodology, with minor variations.
 - **Truck Percentages:** There was a moderate drop (about 10%) in truck travel at the start of the pandemic, with a quick recovery to near 2019 levels. Estimated change in truck travel was based on the 2019 to 2020 trend in North Carolina Motor Fuel Use data and AADT percent change.
 - **Vehicle Miles Traveled (VMT):** VMT was generated using the standard estimation procedure based on the 2020 AADT estimates for all routes above functionally classified local. Functionally classified local route VMT values were estimated at the county level, based on 2019 to 2020 change factors using all non-interstate stations.
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Action

Traffic monitoring data customers should use the 2020 data set with knowledge that 2020 was a year of highly irregular traffic patterns, understanding that AADT values were largely estimated. Counts from this year represent a reasonable characterization of North Carolina travel but may not be appropriate for long-range data projections.

Contact

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