

Highway Safety Information System (HSIS): North Carolina

Overview: General description of data source

Highway Safety Information System (HSIS) is a roadway-based system that provides quality data on a large number of crash, roadway, and traffic variables. It uses data already being collected by agencies for managing the highway system and studying highway safety. The data are acquired annually from a select group of States and one municipality, processed into a common computer format, documented, and prepared for analysis. HSIS is used in support of the Federal Highway Administration (FHWA) safety research program and provides input for program policy decisions. HSIS is also available to professionals conducting research under the National Cooperative Highway Research Program, universities, and others studying highway safety.

Data owner

The FHWA operates and maintains the HSIS. HSIS is managed by the University of North Carolina Highway Safety Research Center (HSRC) under contract with FHWA.

Data description and collection criteria

The following types of files are available for North Carolina:

- Crash files contain basic crash, vehicle, and occupant information on a case-by-case basis. Typically, this information includes type of collision, types of vehicle, sex and age of occupants, fixed object struck, crash severity, and weather conditions.
- Roadway Inventory files contain information about roadway cross sections, types of roadway and other roadway characteristics. Data include number of lanes, lane and median width, shoulder width and type, rural or urban designation, and functional classifications.
- Traffic Volume files list Annual Average Daily Traffic (AADT) data.

Type of data: source or compiled/abstracted

Source and compiled/abstracted

Are the data available to outside parties for analytical purposes?

Yes, to professionals conducting research under the National Cooperative Highway Research Program, universities, and others studying highway safety.

Process to obtain the data for research

Requests can be made online: <https://www.hsisinfo.org/datarequest.cfm>

Website

<https://www.hsisinfo.org/index.cfm>

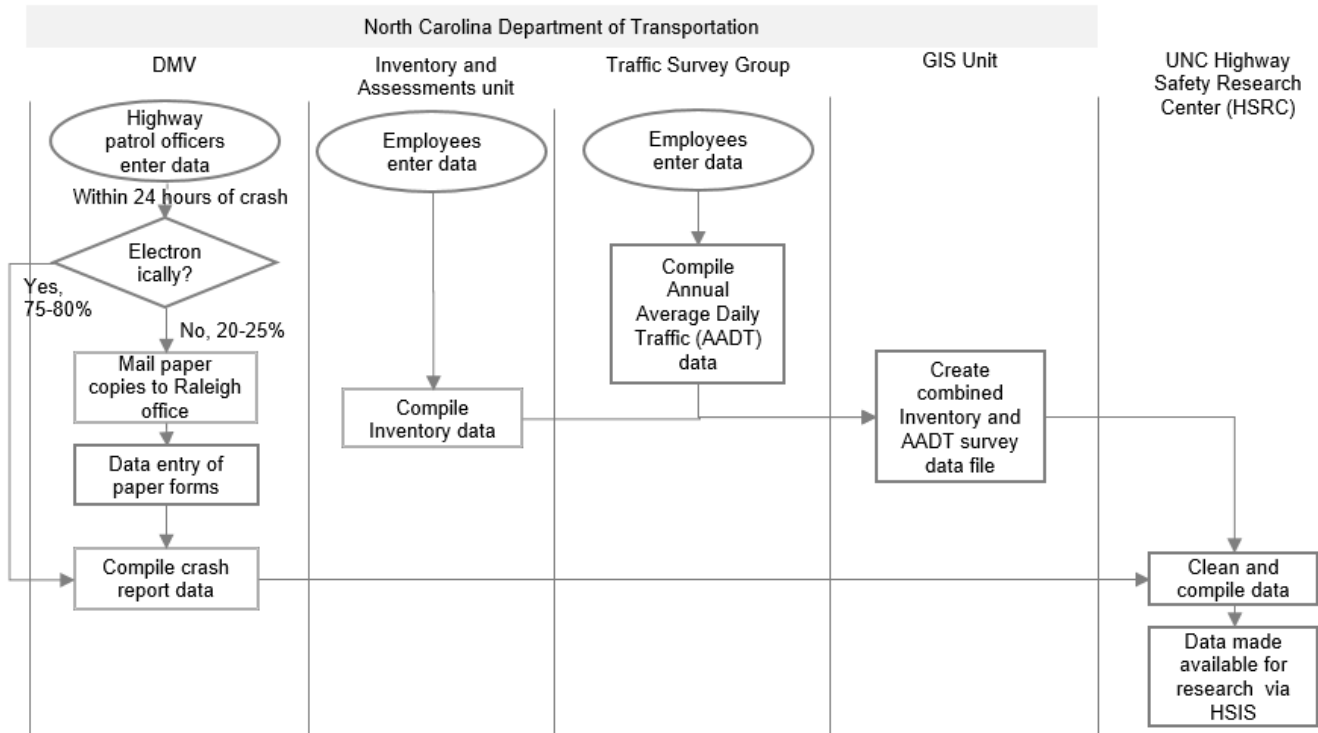
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Data flow



Who enters the original data (Highway patrol officers, healthcare providers, etc.)?

NC highway patrol officers record crash data, either electronically or on paper.

Roadway inventory information is entered by employees of the NC DOT Division of Highways, Inventory and Assessments unit, while the traffic volume data is entered by the Traffic Survey Group. Both units provide their data to the GIS Unit, who compiles and distributes the combined inventory and AADT data in quarterly releases.

Injury classification: Injury classification method (ICD-10-CM, etc.)

KABCO:

- K Killed: Deaths, which occur within 12 months after the crash.
- A injury type (disabling): Injury obviously serious enough to prevent the person injured from performing his normal activities for at least one day beyond the day of the collision.
- B injury type (evident): Obvious injury, other than killed or disabling, which is evident at the scene. Class B injury would not necessarily prevent the person from carrying on his normal activities.
- C injury type (possible): No visible injury, but person complains of pain, or has been momentarily unconscious.
- O No injury

Collection timeframe: when the data were entered after original event

For crash data, North Carolina General Statute 20-166.1 requires that the investigating officer make a written report of the crash within 24 hours. The law enforcement agency must submit the report to the Division of Motor Vehicles (DMV) within 10 days after receiving it. If the officer writing the report is a member of the State Highway Patrol, the officer must forward the report to the Division of Motor Vehicle (DMV).

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Years available: Description of timespan for which data are available

1990 to the present with 1-2 year delay for recent years.

Data History: Key changes in the data that would affect research use

KABCO definitions were revised in 2012.

Is a data dictionary available?

Yes

Dictionary

https://www.hsisinfo.org/guidebooks/north_carolina.cfm

Field Mapping from Source Documentation

Source documentation field map

Report labels	Source labels (where available)
Table or category	SAS VARIABLE FILE
Field	DESCRIPTION
Field-Literal	SAS VARIABLE NAME
Description	Definition
Source comments	Additional Information
Format	FORMAT TYPE
Length	FORMAT TYPE
Required (Y/N)	
Sensitive (Y/N)	
Unique key (Y/N)	
Retired Field (Y/N)	Additional Information
Retired Date	Additional Information

Additional fields available in source documentation

None

Quality and Performance Measures

Known data quality issues:

Data quality issues for individual data elements are noted in the data dictionary. Discussion of data quality concerns can be found in the [HSIS guidebook for North Carolina.](#)