Agency	First Year Available	Average Crashes Per Year	Roadway Mileage
California	1991	170,000	15,400
Illinois	1985	144,000	16,200
Maine	1985	36,000	22,900
Minnesota	1985	77,000	52,800
North Carolina	1990	118,000	50,200
Ohio	1997	132,000	19,600
Washington	1993	43,000	7,200
Charlotte	2004	22,000	1,400

Table 2. Data characteristics for participating agencies.

Website (www.hsisinfo.org)

The HSIS website contains links to HSIS products such as summary reports, safety analysis tools, and various data request tools as described below.

Guidebooks

Guidebooks are available to help analysts and programmers use HSIS. Each unique guidebook describes the agency's data system, displays an alphabetized listing (by file type) of all available variables, defines each category present within each variable, and presents notes on the quality of the variable. The guidebooks are available in both HTML and PDF formats on the HSIS website.

Data Element Tables

HSIS also maintains data element tables for all the agencies. The tables list the crash- and roadway-related variables side by side for all agencies respectively. These tables enable data requesters to compare the availability of variables between specific agencies and are accessible through the HSIS website.

HSIS Summary Reports

HSIS is used in a wide variety of research efforts. Significant results from these efforts are documented in HSIS Summary Reports. To obtain copies of these reports, visit the HSIS website (www.hsisinfo.org) or call the HSIS Report Center at (202) 493-3464.

HSIS Laboratory

The HSIS laboratory at the Turner-Fairbank Highway Research Center provides a working environment that enables FHWA and on-site project staff to study and analyze highway safety issues and to provide support for users including the following:

- **Research files and support.** Staff works with users to define file components and layouts and merges data from crash and other files as needed. Staff also provides on-going support in data interpretation and data merging.
- **Fatality Analysis Reporting System (FARS) and National Automotive Sampling System General Estimates System (NASS GES) files and output.** In addition to the HSIS State data, staff can provide support to users wishing to analyze FARS data and data from NASS GES.
- **Support for geographic information system (GIS) tools.** Staff provides support for GIS-based safety analysis tools described on the HSIS webpage (e.g., spot intersection analysis, safe routes for walking to school).

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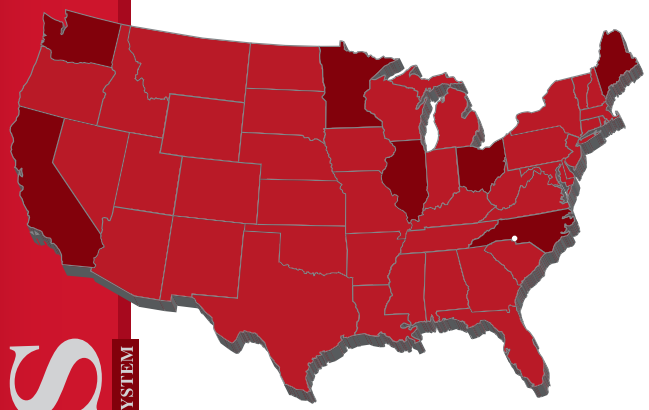

Many elements go into ensuring the safety of our highways, from program policy decisions to roadway and traffic design. To assist safety analysts, researchers, and others involved in the study of highway safety, the Federal Highway Administration (FHWA) operates and maintains the Highway Safety Information System (HSIS).

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 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.

U.S. Department of Transportation
Federal Highway Administration

HSIS

Participating Agencies

In 1987, five States were chosen for HSIS: Illinois, Maine, Michigan, Minnesota, and Utah. (Michigan's participation ended in 1997 and Utah's in 2000 due to changes in inventory data collection.) The primary criteria for State selections were the data availability (the range of data variables collected), quantity, and quality.

In 1995, California, North Carolina, and Washington were added to increase the amount of data available and to provide better geographic coverage.

In 2002, Ohio joined HSIS to provide additional curvature and grade inventories. Data from the Charlotte, NC, urban area were added in early 2011.

This relational database contains basic crash files, roadway inventory files, and traffic volume files from these eight agencies. The database also includes information about highway intersections, interchanges, and curves/grades from some agencies. Table 1 details the information available from each of the currently participating agencies.

	CA	IL	ME	MN	NC	OH	WA	CLT
Crash	✓	✓	✓	✓	✓	✓	✓	✓
Roadway	✓	✓	✓	✓	✓	✓	✓	✓
Traffic Volume	✓	✓	✓	✓	✓	✓	✓	✓
Curve/Grade		✓				✓	✓	
Intersection	✓		✓	✓				✓
Interchange	✓	✓	✓	✓			✓	

Table 1. Data files available in participating agencies.

Data Format

All of the data files are stored in the relational database formatted files. Data can be extracted in various formats such as Microsoft Excel® and Access®, dBase, ASCII, etc. or converted to SAS format for analysis. Data can be provided via different mediums (CD-ROM, FTP, e-mail, etc.). The data can be requested by filling out an HSIS data request form online at the HSIS website.

File Types

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. Additional information on hourly volumes and truck traffic percentages is also available in selected States and/or locations.

Curve/Grade files contain horizontal curve and vertical grade information. Data include degree of curve, length or curve, and percent grade.

Intersections files include traffic control type, intersection type, signal phasing, and turn lanes at highway intersections.

Interchange files include interchange type and ramp characteristics.

All files have been compiled from police-reported crash data and agency-maintained highways. Table 2 provides summary data characteristics.

Safety Data in One Location

HSIS enables users to analyze a large number of safety problems. HSIS can help researchers and analysts identify problems, examine the size and extent of a particular safety problem, and design models that help predict future crashes, given specific roadway and traffic characteristics.